

2024

# 日本免疫学会総会・学術集会記録

The 52nd Annual Meeting of The Japanese Society for Immunology

第 52 卷

## Program

**Makuhari Messe**

January 17 (Wed.)

18 (Thu.)

19 (Fri.)

特定非営利活動法人 日本免疫学会

Proceedings of the Japanese Society for Immunology (JSI)

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# VisionSort™ ゴーストサイトメトリー® 技術搭載

細胞形態情報をAI(人工知能)により解析し、  
目的細胞を分取できる独自技術を搭載したイメージングセルソーター

## デュアル機能セルソーター

新規のAIベース細胞形態データ分析・  
ソート機能に加え、従来の蛍光強度情報に  
よる分析・ソートが可能

## 独自の細胞特性測定・解析手法

独自に開発した光学技術により、  
細胞の形態的特徴を包括的に測定・解析

## バイアスフリーな特徴判別

AIを活用し、細胞の特徴を  
従来マーカーに影響されずに判別



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## 仕様

光学系	
搭載レーザー	405nm, 488nm, 637nm
検出チャンネル	FSC/BSC, 蛍光:最大5パラメータ, ゴーストモーションイメージ (GMI): 最大5パラメータ
流路系	
純度/収率	純度:>98%、 収率:80%(ポアソン分布の期待値)
リンパ球の生存率	>99%
細胞サイズ	4-40 μm

# The 52nd Annual Meeting of The Japanese Society for Immunology

January 17-19, 2024  
Makuhari Messe

## President

Toshinori Nakayama (Chiba University)

## Vice Presidents

Hiroshi Nakajima (Chiba University)  
Shinichiro Motohashi (Chiba University)  
Motoko Y. Kimura (Chiba University)

## Secretary General

Kiyoshi Hirahara (Chiba University)

## International Scientific Advisor

Hiroshi Kiyono (Chiba University/ UCSD, USA)  
Mitchell Kronenberg (LJI, USA)  
Andreas Radbruch (DRFZ, Germany)  
Alfred Singer (NIH, USA)

## Program Committee, JSI

(~December 31, 2024)

Sachiko Miyake\* Toshinori Nakayama Kazuko Shibuya Keiko Udaka

(~December 31, 2026)

Motoko Kimura Masaaki Murakami Reiko Shinkura Osamu Takeuchi

\*Chair

## Program Committee for the Annual Meeting

Keishi Fujio	Koji Hase	Kiyoshi Hirahara
Shohei Hori	Ken J. Ishii	Yuki Kinjo
Daisuke Kitamura	Haruhiko Koseki	Masato Kubo
Ichiro Manabe	Kensuke Miyake	Shinichiro Motohashi
Masaaki Murakami	Toshinori Nakayama	Ichiro Taniuchi

**The 52nd Annual Meeting of the Japanese Society for Immunology  
Congress Secretariat**

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TEL : +81-6-6350-7163  
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**複写される方へ**

特定非営利活動法人 日本免疫学会では、複写複製および転載複製に係る著作権を学術著作権協会に委託しています。当該利用をご希望の方は、学術著作権協会 (<https://www.jaacc.org/>) が提供している複製利用許諾システムもしくは転載許諾システムを通じて申請ください。

権利委託先：一般社団法人学術著作権協会 (<https://www.jaacc.org/>)

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# Program of The Japanese Society for Immunology (JSI)

Vol. 52

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# The 52nd Annual Meeting of the Japanese Society for Immunology Program at a glance

## January 17 (Wed.), 2024

Building/Room		Program Room Number	8	30	9	30	10	30	11	30	12	30
2F	Convention Hall A	Room A			<b>OT01</b> <b>J</b>	<b>S01</b> Vaccine mechanism and design: AMED-SCARDA Co-organized Session			<b>E</b>		<b>T01</b> Nippon Becton Dickinson Company, Ltd.	<b>J</b>
	Convention Hall B	Room B			<b>OT02</b> <b>J</b>	<b>S02</b> Immunological Memory: AMED-CREST "Immune Memory" Sponsored Session			<b>E</b>		<b>C01</b> Sanofi K.K.	<b>E</b>
	International Conference Room	Room C			<b>OT03</b> <b>J</b>	<b>S03</b> Mucosal immunity for the control of infection and inflammation: AMED-CREST "Immune Memory" Sponsored Session			<b>E</b>		<b>C02</b> AbbVie GK	<b>J</b>
	201	Room D			<b>OT04</b> <b>J</b>	<b>S04</b> Decoding storage diseases to understand self- referential immune responses: Transformative Research Areas (A) "Self-referential immune perception" co-organized session			<b>E</b>		<b>T02</b> Funakoshi Co., Ltd.	<b>J</b>
3F	301	Room E			<b>OT05</b> <b>J</b>	<b>S05</b> Diverse immunometabolic communication in health and disease: US-Japan Immunology Program Co-organized Session			<b>E</b>		<b>T03</b> TOMY DIGITAL BIOLOGY CO., LTD.	<b>J</b>
	304	Room F	8:30	9:00						11:30	<b>T04</b> Thermo Fisher Scientific	<b>J</b>
	302	Room G									<b>C03</b> Mitsubishi Tanabe Pharma Corporation/Janssen Pharmaceutical K.K.	<b>J</b>
	303	Room H									<b>C04</b> CHUGAI PHAR- MACEUTICAL CO., LTD.	<b>J</b>
1F	Exhibition Hall 7	Equipment Exhibition										
		Poster	8:30	Installation						11:45		12:45

**OT** | Overview Talk      **S** | Symposium      **WS** | Workshop  
**T** | Technical Seminar      **C** | Clinical Seminar      **A** | Afternoon Seminar  
**E** in English      **J** in Japanese      **E** | Evening Seminar

13	30	14	30	15	30	16	30	17	30	18	30	19	30	20	30	21
		Awards Ceremony & Lectures <b>E</b>		WS01 Infection immunity 1 <b>E</b>												
A01 TOMY DIGITAL BIOLOGY CO., LTD. <b>J</b>		14:15		15:15		WS02 Systemic Autoimmune Diseases <b>E</b>										
13:00		14:00				WS03 Macrophages and other innate immune cells in homeostasis <b>E</b>										
						WS04 Innate Immunity <b>E</b>				E01 Lung stem cell biology and disease [TOMY DIGITAL BIOLOGY CO., LTD.] <b>J</b>						
						WS05 Allergy-1 <b>E</b>				18:40		19:40				
						WS06 Cytokines and chemokines <b>E</b>										
						WS07 Tolerance and Immune suppression-1 <b>E</b>										
				15:30		16:45										
Equipment Exhibition																
								17:00		17:45		18:30		18:45		
Poster Viewing								Poster Discussion (Odd No.) <b>E</b>		Poster Discussion (Even No.) <b>E</b>		Removal				

# The 52nd Annual Meeting of the Japanese Society for Immunology Program at a glance

## January 18 (Thu.), 2024

Building/Room		Program Room Number	8	30	9	30	10	30	11	30	12	30
2F	Convention Hall A	Room A			<b>OT 06</b> <b>J</b>	<b>S06</b> Regulation of T cell responses in health and disease: US-Japan Immunology Program Co-organized Session					<b>E</b>	<b>C05</b> <b>J</b> AstraZeneca K.K.
	Convention Hall B	Room B			<b>OT07</b> <b>J</b>	<b>S07</b> Inflammation driven fibrosis and tissue repair: KAI-JSI Joint Session					<b>E</b>	<b>T05</b> <b>J</b> 10x Genomics / SCRUM Inc.
	International Conference Room	Room C			<b>OT08</b> <b>J</b>	<b>S08</b> Autoimmune Disease and Systems Immunology: JSI-JCR Joint Session					<b>E</b>	<b>T06</b> <b>J</b> Beckman Coulter K.K.
	201	Room D			<b>OT09</b> <b>J</b>	<b>S09</b> Recent advances in immunological barriers and allergic march: JSI-JSA Joint Session					<b>E</b>	<b>T07</b> <b>J</b> Nippon Becton Dickinson Company, Ltd.
3F	301	Room E			<b>OT10</b> <b>J</b>	<b>S10</b> Neural signaling in Immunology: AMED-Moonshot "Regulation of Microinflammation" Co-organized Session US-Japan Immunology Program Co-organized Session					<b>E</b>	<b>C06</b> <b>J</b> Moderna Japan Co., Ltd
	304	Room F	8:30	9:00							11:30	<b>C07</b> <b>J</b> Otsuka Pharmaceutical Co., Ltd.
	302	Room G										<b>C08</b> <b>J</b> GlaxoSmithKline K.K.
	303	Room H										<b>C09</b> <b>J</b> MSD K.K.
1F	Exhibition Hall 7	Equipment Exhibition										
		Poster	8:30	Installation							11:45	12:45



**OT** | Overview Talk      **S** | Symposium      **WS** | Workshop  
**T** | Technical Seminar      **C** | Clinical Seminar      **A** | Afternoon Seminar  
**E** in English      **J** in Japanese      **E** | Evening Seminar

13	30	14	30	15	30	16	30	17	30	18	30	19	30	20	30	21
		<b>WS08</b> <b>E</b> Tumor immunity-1; Effector cell therapy			<b>WS15</b> <b>E</b> Tumor immunity-2; Various immunotherapy					18:45						20:45
<b>A02</b> <b>J</b> Nippon Becton Dickinson Company Ltd.		<b>WS09</b> <b>E</b> Infection immunity 2			<b>WS16</b> <b>E</b> Infection immunity 3											
13:00		14:00	<b>WS10</b> <b>E</b> Effector differentiation and function of T cells			<b>WS17</b> <b>E</b> T cell biology in diseases and environments										
		<b>WS11</b> <b>E</b> Cellular basis for the development of pathogenic or tissue- resident macrophages			<b>WS18</b> <b>E</b> Dendritic cells & Macrophages: development, function and regulation of immune response and disease											
		<b>WS12</b> <b>E</b> Autoimmunity in Arthritis and Fibrosis			<b>WS19</b> <b>E</b> Mucosal-skin immunity 1											
		<b>WS13</b> <b>E</b> Tolerance and Immune suppression-2			<b>WS20</b> <b>E</b> Innate lymphocytes											
		<b>WS14</b> <b>E</b> Allergy-2			<b>WS21</b> <b>E</b> B cell (1)-from birth to death											
		14:05	15:20	15:30	16:45											
Equipment Exhibition																
										17:00	17:45	18:30				
Poster Viewing										<b>E</b> Poster Discussion (Odd No.)	<b>E</b> Poster Discussion (Even No.)	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Removal</div>				

Get Together Party  
 Hotel New Otani Makuhari  
 2F "Tsuru"  
 18:45~20:45

# The 52nd Annual Meeting of the Japanese Society for Immunology Program at a glance

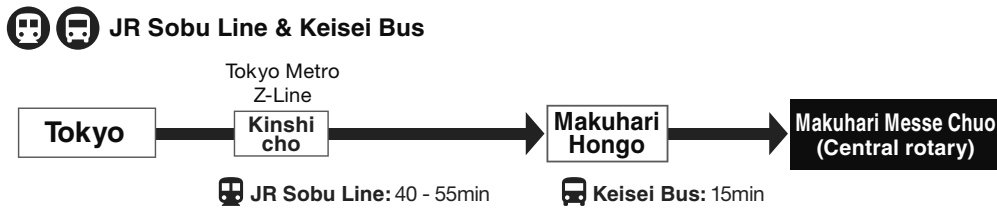
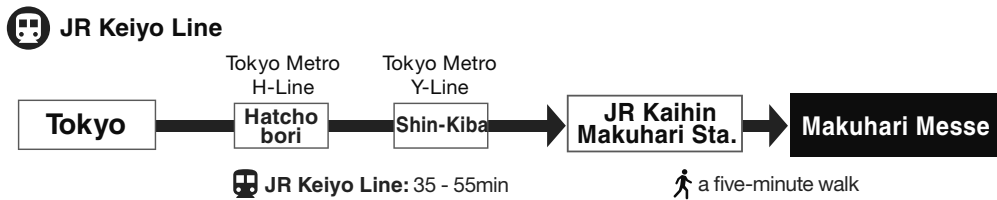
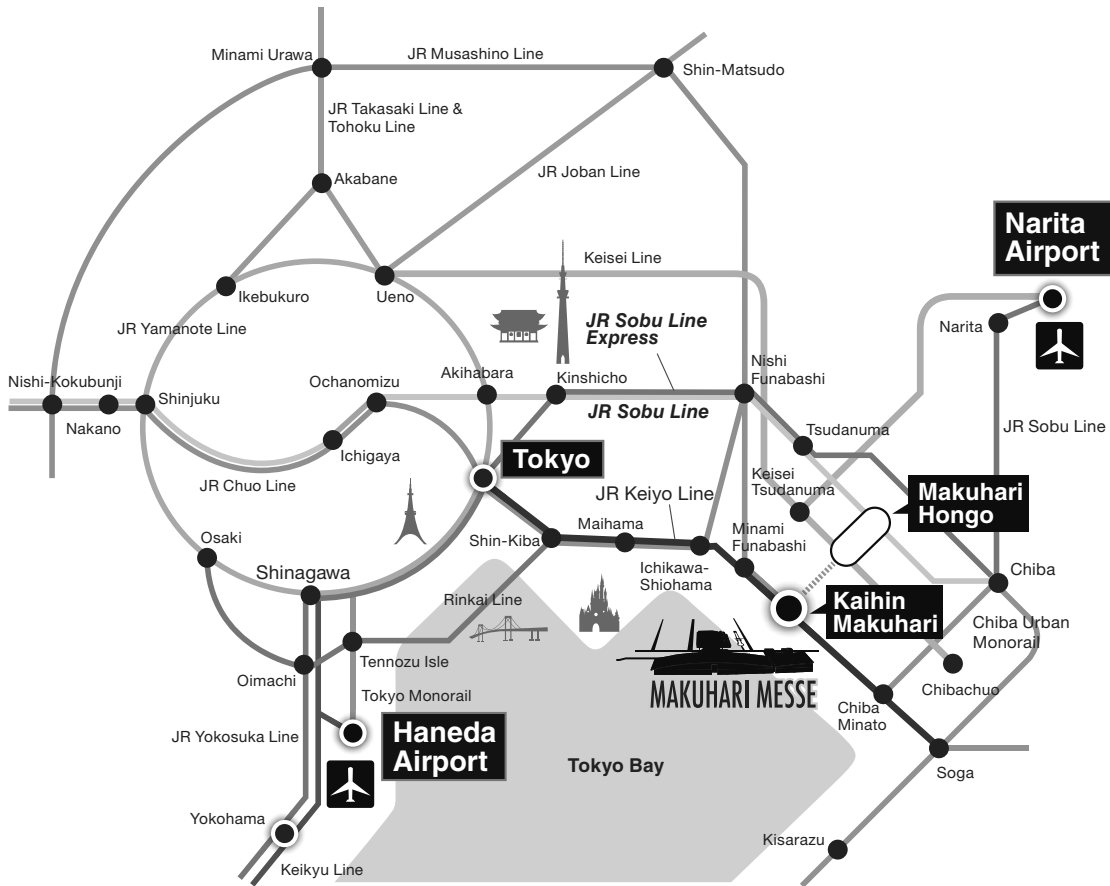
## January 19 (Fri.), 2024

Building/Room		Program Room Number	8	30	9	30	10	30	11	30	12	30
2F	Convention Hall A	Room A			<b>OT11</b> <b>J</b>	<b>S11</b> Cancer immunotherapy: Sponsored by International Immunology				<b>E</b>	<b>C10</b> SHIONOGI	<b>J</b>
	Convention Hall B	Room B			<b>OT12</b> <b>J</b>	<b>S12</b> Epigenetics in Immunology				<b>E</b>		
	International Conference Room	Room C			<b>OT13</b> <b>E</b>	<b>S13</b> Innate-like T cells and ILCs: ASI-JSI Joint Session				<b>E</b>	<b>C11</b> Pfizer Japan Inc.	<b>J</b>
	201	Room D			<b>OT14</b> <b>J</b>	<b>S14</b> Immune system development: SFI-JSI Joint Session				<b>E</b>	<b>T08</b> Cytex Japan Corporation	<b>E</b>
3F	301	Room E			<b>OT15</b> <b>J</b>	<b>S15</b> Humoral Immunity: DGFI-JSI Joint Session				<b>E</b>	<b>C12</b> Asahikasei Pharma	<b>J</b>
	304	Room F	8:30	9:00						11:30	<b>T09</b> COSMO BIO CO., LTD.	<b>E</b>
	302	Room G									<b>C13</b> Daiichi Sankyo Company, Limited	<b>J</b>
	303	Room H									<b>T10</b> Standard BioTools K.K.	<b>J</b>
1F	Exhibition Hall 7	Equipment Exhibition										
		Poster	8:30	Installation							11:45	12:45

**OT** | Overview Talk      **S** | Symposium      **WS** | Workshop  
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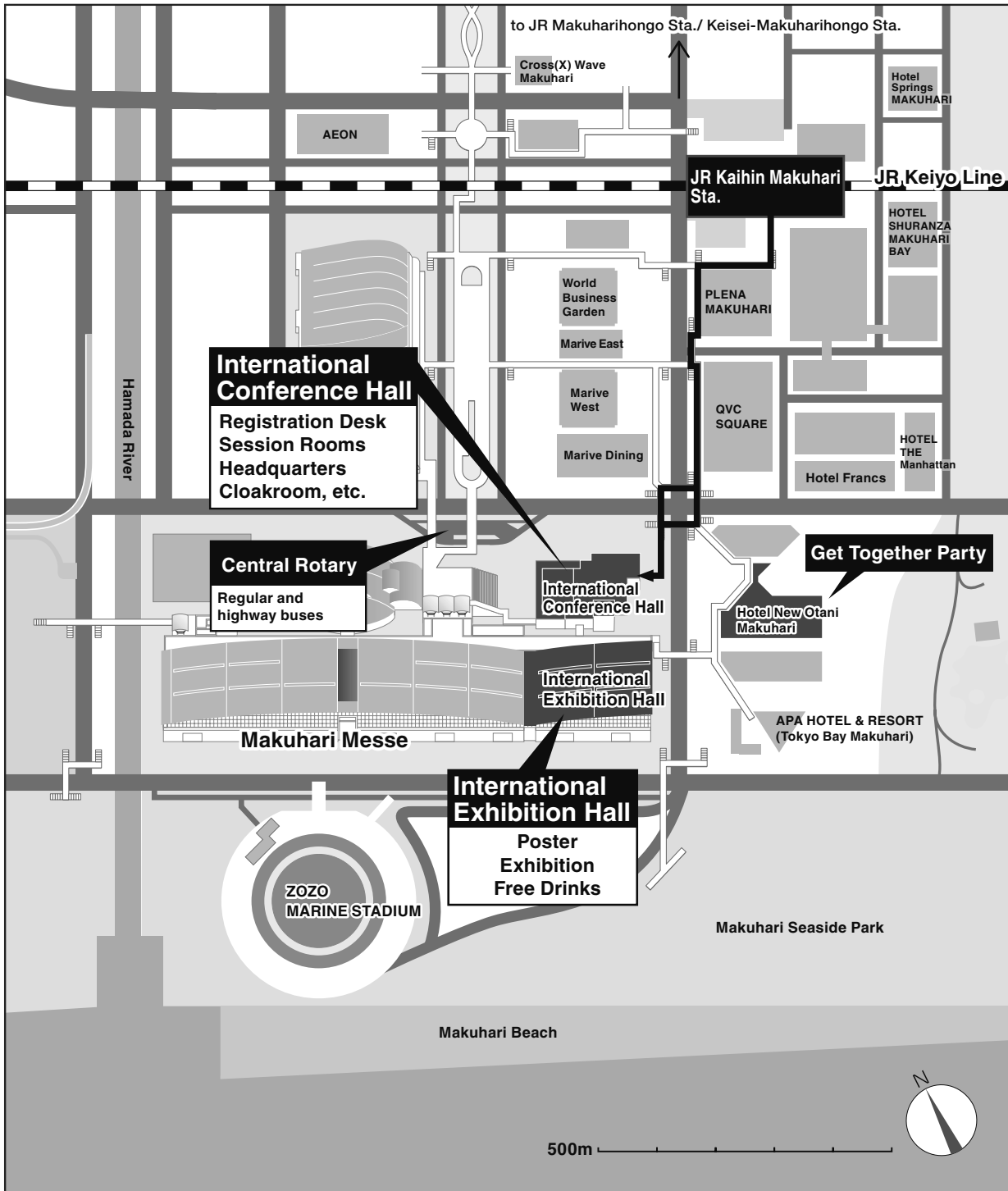
13	30	14	30	15	30	16	30	17	30	18	30	19	30	20	30	21
		<b>WS22</b> <b>E</b> Tumor immunity-3; Analysis of tumor immunity														
		<b>WS23</b> <b>E</b> Organ Specific Autoimmunity														
		<b>WS24</b> <b>E</b> T cell development and function														
		<b>WS25</b> <b>E</b> Mucosal-Skin Immunity2														
		<b>WS26</b> <b>E</b> Human immunology and immunogenetics														
		<b>WS27</b> <b>E</b> Hematopoiesis and Immune Environment														
		<b>WS28</b> <b>E</b> B cell (2)- fight against infectious diseases														
13:00		14:15														
Equipment Exhibition																
		14:30	15:15	16:00	16:15											
Poster Viewing		<b>E</b> Poster Discussion <i>(Odd No.)</i>	<b>E</b> Poster Discussion <i>(Even No.)</i>	Removal												

## Access to Makuhari Messe



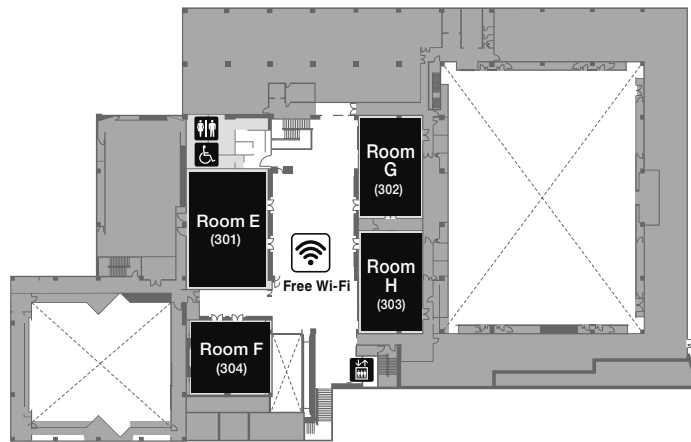
\* The name of bus stop varies depending on bus companies.

## General Floor Plans

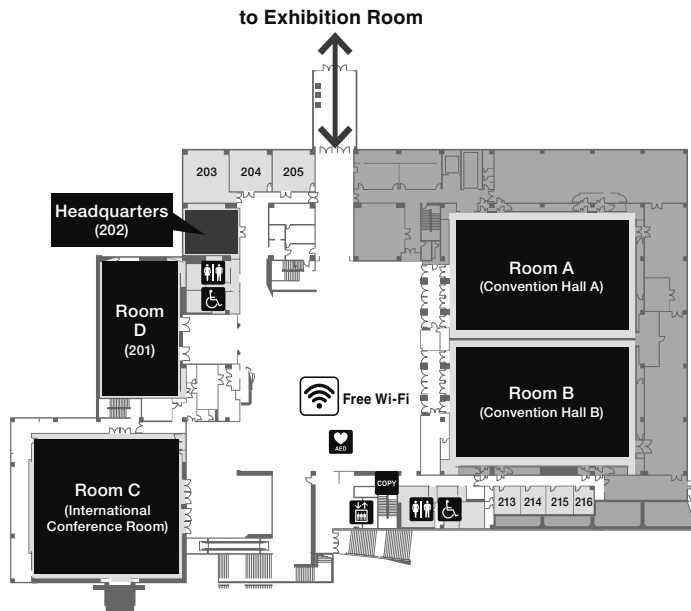


## International Conference Hall

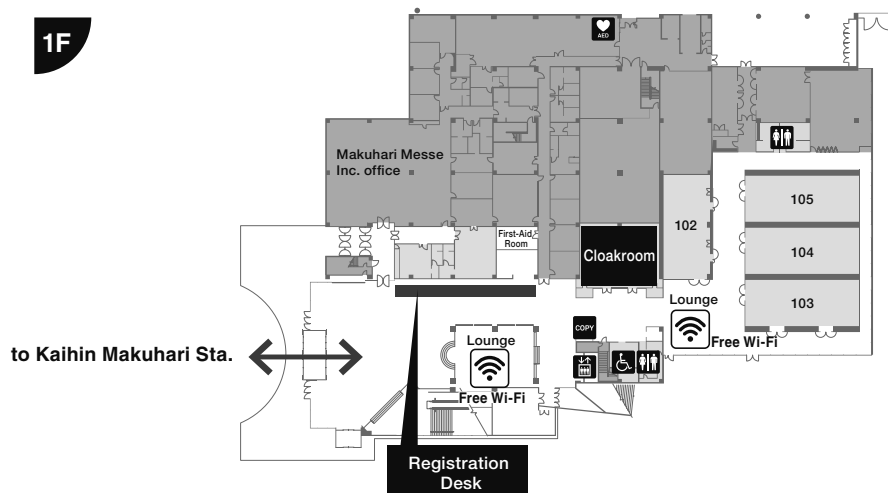
3F



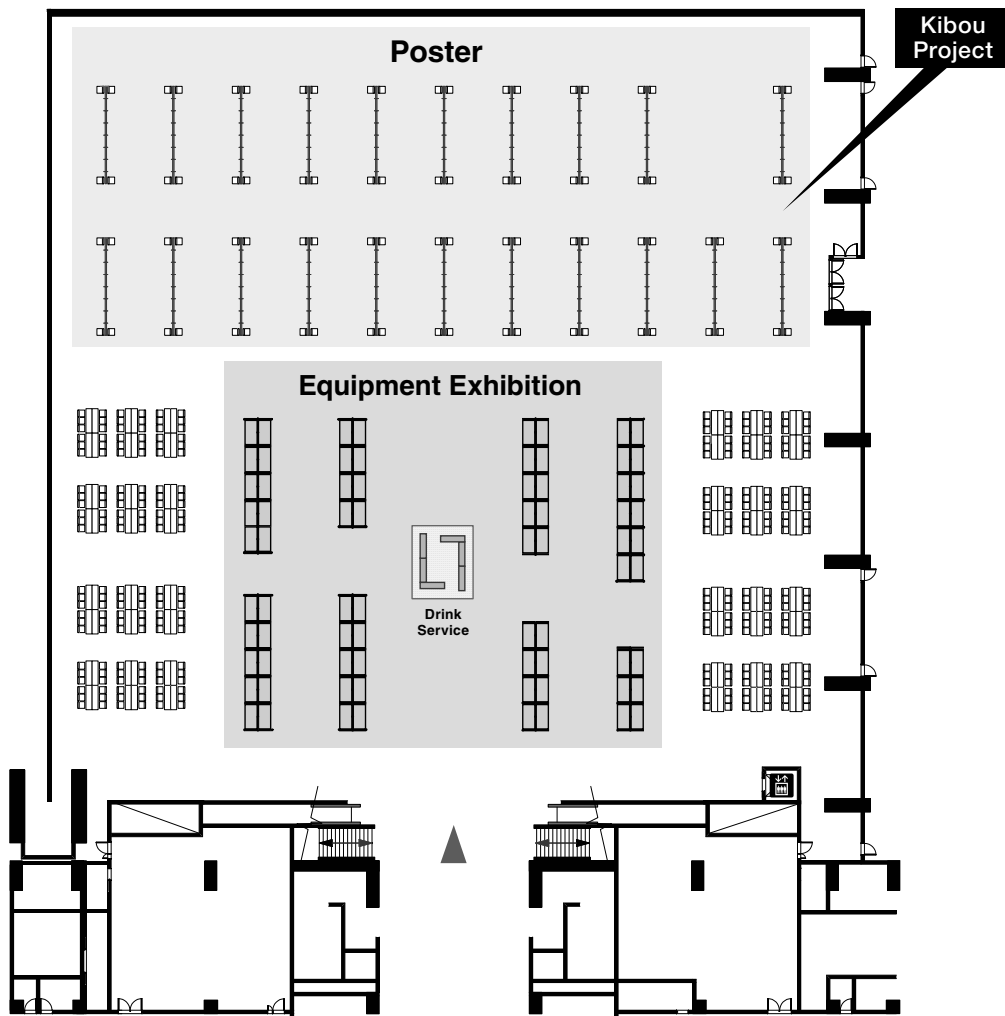
2F



1F



## International Exhibition Hall



### Exhibitors List

1	CLEA Japan, Inc.	17	NACALAI TESQUE, INC.	33	Cytek Japan Corporation
2	CellSeed, Inc.	18	IWAI CHEMICALS COMPANY LTD.	34	Standard BioTools K.K.
3	CSCRIE CORPORATION	19	Nippon Becton Dickinson Company, Ltd.	35	Evident Corporation
4	Fushimi Pharmaceutical / Proteo Bridge Corporation	20	Sino Biological JAPAN Inc.	36	TOYO Corporation
5	Mirxes Japan Co. Ltd.	21	IVIM Technology	37	SYSTEMEX CORPORATION
6	AS ONE CORPORATION	22	Meiwafoasis Co., Ltd.	38	Tokyo Ohka Kogyo Co., Ltd.
7	Daicel Corporation	23	Miltenyi Biotec K.K.	39	Myoridge Co.Ltd.
8	Nepa Gene Co., Ltd.	24	Revvity, Inc.	40	Ajinomoto Bio-Pharma Services GeneDesign, Inc.
9	Lonza K.K.	25	Shigematsu & Co., LTD.	41	Merck Ltd. Japan
10	Bio-Techne (Proteinsimple, ACD, R&D Systems, NOVUS, TOCRIS)	26	DENIS Pharma K.K.	42	Summit Pharmaceuticals International Corporation
11	Active Motif	27	ThinkCyte K.K.	43	NanoString Technologies
12	Primetech Corporation	28	Sony Corporation	44	Pinpoint Photonics, Inc.
13	BGI JAPAN K.K.	29	10x Genomics / SCRUM Inc.	45	Seturo Tech Inc.
14	TOMY DIGITAL BIOLOGY CO., LTD.	30	Thermo Fisher Scientific	46	National BioResource Project
15	Beckman Coulter K.K.	31	COSMO BIO CO., LTD.	47	National Center for Geriatrics and Gerontology
16	Cyberomix Inc.	32	Funakoshi Co., Ltd.	48	VERITAS Corporation

# ご案内

本学術集会は、現地開催となります。オンライン配信および事後配信はありませんのでご注意ください。

## 1. 参加方法

### ◆ オンラインで参加登録をされた方

参加証（ネームカード）や領収書、参加証明書は、学術集会オンラインシステム「Confit」へログインのうえダウンロードしてください。ログインにはご自身で登録したメールアドレスとパスワードをお使いください。

ネームホルダーは、現地の受付付近でお受け取りください。

### ◆ 現地で当日参加申込をされる方

参加受付にて学術集会参加費（下記参照）をお支払いのうえ、ネームカードをお受け取りください。ネームカードをご着用でない方の入場はお断りいたします。

〈当日参加費（後期登録）〉

正会員	14,000 円
学生会員 *	3,000 円
学部学生会員 *	無 料
非会員	17,000 円
非会員学生 *	7,000 円
非会員学部学生 *	無 料

\* 学部・大学院生は学生証の提示が必要です。

\* お支払いは現金のみです。

〈参加受付開設時間〉

1月17日（水）	7：45～17：00
1月18日（木）	8：00～17：00
1月19日（金）	8：00～13：00

### ◆ 名誉会員・功労会員

1階 エントランスロビーの学会事務局デスクにお越しください。

## 2. 入会手続きおよび年会費の納入

日本免疫学会に未入会の方は、学会事務局デスク（現地会場）にて入会できます。2024年度会費および未納年会費の納入も同所で受け付けます。

### 【年会費】

国内正会員	11,000 円
国内学生会員（博士）*	3,000 円
国内学生会員（学部・修士）*	0 円
海外正会員	12,000 円
海外学生会員（博士）*	4,000 円
海外学生会員（学部・修士）*	0 円

### 【入会金】

国内正会員、国内学生会員（博士）、  
海外正会員、海外学生会員（博士）：1,000 円  
国内学生会員（学部・修士）\*、  
海外学生会員（学部・修士）：0 円  
\* 学生会員（博士・学部・修士）の方は  
学生証をご提示ください。



※一般演題の筆頭著者（発表者）は、2023年度の会員（正会員、学生会員、功労会員、名誉会員に限ります）であることが義務付けられております。

### 3. プログラム、抄録集（プロシーディングス）

プログラムは、学術集会ホームページで公開し、また現地会場でも冊子を配布いたします。会員は、抄録集（プロシーディングス）をPDFデータ形式で学会ホームページの会員専用ページにて閲覧できます。閲覧にはご自身の会員番号（ID）とパスワードが必要です。

2023年度会費を最近納入されたにもかかわらず、会員専用ページで閲覧できない際には学会事務局へお問い合わせください。

非会員の方には5,000円（税込）にてWeb抄録集の閲覧URLとパスワードを販売いたします。必要な方は参加登録の際にお申込みください。現地会場で参加申込をする方は、学会事務局デスクへお越しください。

### 4. 授賞式・受賞講演

授賞式：1月17日（水） 14:15～14:25 A会場（コンベンションホールA）にて行います。

- ・日本免疫学会賞 授賞式
- ・日本免疫学会ヒト免疫研究賞 授賞式
- ・日本免疫学会女性免疫研究者賞 授賞式
- ・日本免疫学会研究奨励賞 授賞式
- ・International Immunology Outstanding Merit Award 授賞式

受賞講演：1月17日（水） 14:25～15:15 ※授賞式に引き続き行います。

日本免疫学会賞、日本免疫学会ヒト免疫研究賞、日本免疫学会女性免疫研究者賞 受賞講演

### 5. 学術集会プログラム

本大会では以下のプログラムを実施します。

#### オーバービュートーク

各領域の基礎知識、歴史と発展を系統的に紹介する入門者向けの教育講演です。オーバービュートーク終了後、休憩時間をはさまずシンポジウムに移ります。

#### シンポジウム

国内外の免疫の研究者による15テーマ（S01～S15）の国際シンポジウムを開催します。

演者の選考および形式については、プログラム委員会で指名した座長に一任いたしました。

それぞれのシンポジウムが同時進行する形をとります。シンポジウム進行方法、各演者の講演時間などは全て座長に一任しております。

#### JSI-JSA Joint Symposium

日本アレルギー学会とのジョイントセッションです。詳細はプログラムページをご確認ください。

#### JSI-JCR Joint Symposium

日本リウマチ学会とのジョイントセッションです。詳細はプログラムページをご確認ください。

#### アフタヌーンセミナー

協力企業との密な連携のもと、次世代を担う免疫学研究者を育成するプラットホームの構築をめ

ざし、企業ならではの趣向を取り入れたセミナーです。

### **ポスター、ワークショップ（口頭発表）**

一般演題は、すべての演題のポスター発表と一部の演題による口頭発表が行われます。口頭発表と共にポスターでの活発な討論をお願いいたします。

### **テクニカルセミナー、クリニカルセミナー、イブニングセミナー**

テクニカルセミナーはお昼の時間帯と夜の時間帯（イブニングセミナーとして）に、クリニカルセミナーはお昼の時間帯に行います。お弁当の入手方法については、次項の「6. セミナー整理券」をご参照ください。

講演の言語は「At a Glance」ページでご確認ください。

#### **▶ テクニカルセミナー・イブニングセミナー**

最新の医学・生命科学関連試薬・技術・機材・器機等を使った実験法などや、アレルギー・免疫疾患・癌・感染症研究に関連する最新の器機紹介を通じて、基礎研究・応用研究・開発研究の融合の場となるセミナーです。

#### **▶ クリニカルセミナー**

医薬品・生物学的製剤等による免疫疾患や感染症の診断や治療・予防の進展などをご紹介いただくセミナーです。

## **6. セミナー整理券（テクニカルセミナー、クリニカルセミナー、イブニングセミナー）**

テクニカルセミナー、クリニカルセミナー、イブニングセミナーで配布されるお弁当は、「セミナー整理券」と引き換えにてお渡しいたします。「セミナー整理券」は以下のように配布いたします。なお、お弁当の数には限りがあります。予めご了承ください。

### **◆ セミナー整理券発券デスク**

各日お一人につき一枚、セミナー整理券を配布します。複数枚のお渡しはできませんのでご了承ください。

場 所：1階 エントランスロビー

配布時間：各日 OPEN～11:00 ※11:00以降は各セミナー会場前で配布いたします

### **◆ お弁当の引換開始時刻**

セミナー開始15分前より、各セミナー会場前でセミナー整理券とお弁当を引き換えのうえ、会場への入場を開始いたします。

※会場の状況、直前セッションの進行状況等により前後することがございます。

### **〈ご注意〉**

- ・セミナー開始時刻までに来られない場合にはセミナー整理券は無効となり、整理券をお持ちでない方にご提供しますことをご了承ください。
- ・整理券をお持ちでなくてもセミナーを聴講することはできますが、お弁当の配布はございませんのでご了承ください。

## **7. 機器・試薬等展示**

会期中、大会会場内で機器・試薬展示を行います。休憩コーナー、ドリンクコーナーもご用意いたしますので、是非ご来場ください。

また、出展企業より提供される景品が当たるスタンプラリーも実施します。豪華景品もご用意しておりますので、是非ご参加ください。

## 8. 会員懇親会

日 時：1月18日（木）18:45-20:45

場 所：ホテルニューオータニ幕張 2階 “鶴の間”

参 加 費：会費・非会員 4,000円 学生・非会員学生 1,000円

受 付：幕張メッセ会議棟 1 エントランスロビー

参加人数には限りがございますので、お早めにお申し込みをお願いします。

## 9. インターネット接続

会場内ではWi-Fiをご利用いただけます（無料）。接続するためのSSIDとパスワードは、会場内で掲示します。

## 10. 学術集会講演会場における撮影・録音行為の規制について

学術集会講演会場（シンポジウム会場、口頭発表会場、ポスター会場など、学会発表内容のある場所）における撮影、録音行為を禁止いたします。ただし、学会が承認したものはその限りではありません。これは、発表者の許可無く学会発表の撮影・録音がおこなわれることにより、論文未掲載の最新データの発表が差し控えられるという現状を鑑みたものです。

会員の皆様の積極的かつ、活発な研究発表と討議がなされることを期待いたします。

# General Information

This meeting will be held on-site. No online distribution of any programs during and after the meeting will be available.

## 1. On-site Participation

### ◆ Participants who registered online

Log into your account of Confit, the online conference system, and download your meeting badge and the receipt of the registration fee. You can log into the system with your email address and password you set.

Badge holders are available near the Registration Desk.

### ◆ Participants who register on-site

Please come to the registration desk, pay the registration fee below and receive a meeting badge. Participants without wearing their meeting badges will not be allowed to enter the meeting site.

#### 〈On-Site Registration Fee (Late Registration)〉

Member	JPY 14,000
Doctoral Student*	JPY 3,000
Undergraduate and Master's Degree Student*	Free
Non-Member	JPY 17,000
Doctoral Student Non-Member*	JPY 7,000
Undergraduate and Master's Student Non-Member Student*	Free

\*All of students are required to show their student ID.

We accept cash only.

〈Registration Desk opening hours〉

January 17 (Wed)	7:45 - 17:00
January 18 (Thu)	8:00 - 17:00
January 19 (Fri)	8:00 - 13:00

### ◆ Honorary members / Meritorious members

Please come to the JSI Secretariat Desk at Entrance Lobby, 1F.

## 2. Application and Annual Membership Fee

You can join the JSI (the Japanese Society for Immunology) at the JSI desk on the meeting site. You can also pay your membership fees at the JSI desk.

### Annual Membership Fee (Domestic)

Member	JPY 11,000
Doctoral Student*	JPY 3,000
Undergraduate and Master's Degree Student*	Free

### **(Overseas)**

Member	JPY 12,000
Doctoral Student*	JPY 4,000
Undergraduate and Master's Degree Student*	Free

### **Application Fee**

Member, Doctoral Student	JPY1,000
Undergraduate and Master's Degree Student*	Free

\*All of students are required to show their student ID.

**\*First Authors (Presenting authors) must be JSI members: Regular, Student, Meritorious or Honorary members. However, foreign-registered authors residing outside Japan are excluded.**

## **3. Meeting Program / Proceedings (Abstracts)**

The digital version of Meeting Program will be available on the meeting website and the printed version of Meeting Program will be distributed to all participants on the meeting site.

Proceedings (abstracts) as a PDF file will be available on the website for JSI members. You need your membership ID and password to login to this website.

If you completed the payment of 2023 annual membership fee, but cannot login to the website for JSI members, please contact the JSI secretariat.

If you are not a JSI member, you can purchase ID and password to login to the website for JPY 5,000 through the meeting website in advance or the JSI Secretariat Desk on the meeting site.

## **4. Awards Ceremony & Lectures**

Ceremonies: Wednesday, January 17, 14:15-14:25, Room A (Convention Hall A)

- JSI Award Ceremony
- JSI Human Immunology Research Award Ceremony
- JSI Women Immunologist Award Ceremony
- JSI Young Investigator Award Ceremony
- International Immunology Outstanding Merit Award Ceremony

Lectures: Wednesday, January 17, 14 : 25-15 : 15, Room A (Convention Hall A)

Lectures below will be held after the above Ceremonies.

- JSI Award Lecture
- JSI Human Immunology Research Award Lecture
- JSI Women Immunologist Award Lecture

## **5. Programs**

The 52nd JSI meeting will have following programs.

### **Overview Talk**

Overview talks held prior to each symposium are kind of educational lectures and especially for students or those who are not specialized in the topics.

## **Symposia**

International symposia on 15 topics (S01-S15) will be held by both domestic and overseas immunologists. The program committee appointed chairs of symposia and left selection of speakers to the discretion of those chairs.

Some symposia will be conducted concurrently. Chairs decide how they lead their sessions and presentation time of each speaker.

### **JSI-JSA Joint Symposium**

The symposium will be held jointly with Japanese Society of Allergology. Refer to the program page for detailed information.

### **JSI-JCR Joint Symposium**

The symposium will be held jointly with Japan College of Rheumatology. Refer to the program page for detailed information.

### **Afternoon Seminars**

Those seminars are held aimed at building platforms for developing Immunologists who are responsible for the next generation in close collaborations with cooperative companies. Those are elaborate seminars unique to the companies.

### **Workshop (Oral presentations and Poster)**

All regular papers are to be presented at Poster session. Some of selected regular papers are to be presented at Workshop as well.

### **Technical Seminars, Evening Seminar, Clinical Seminars**

Technical Seminars will be held during the lunch time and evening time (as Evening Seminar). And Clinical Seminars will be held during the lunch time.

Please refer to “6. Luncheon Seminar Ticket” for more information regarding Luncheon seminars.

Language of each seminar can be found on “At a Glance” of the program page of our website.

#### **◆ Technical Seminars, Evening Seminar**

Those seminars aim to promote interaction between basic research, application research and development research through introducing experimental methods with latest life science related regents, technologies, machines and equipment, or latest equipment for researching allergy, immunological diseases, cancer, and infectious disease.

#### **◆ Clinical Seminars**

Those seminars aim to introduce developments of diagnosis, treatment and prevention of immunological and infectious diseases caused by pharmaceutical and biological products.

## **6. Seminar Ticket (Technical, Evening, Clinical, Seminars)**

A box lunch will be served for those has a Seminar Ticket at Technical, Evening Seminar and Clinical Seminars. Please kindly note that number of tickets are limited. Tickets will be distributed as below:

#### **◆ Seminar Ticket Desk**

One ticket for one person on a day (except Evening Seminar). Ticket distribution is on the first come, first served basis. We are not able to distribute more than one ticket to one person on a day.

Location: Entrance Lobby, 1F

Time: OPEN-11:30 (After 11:30, you may receive a ticket in front of each session room if tickets are still available)

### ◆ Receiving a box lunch

Redeem a ticket to receive a box lunch. You can receive it from 15 minutes before seminars begin in front of each seminar room.

\*Starting time for receiving may be changed depending on previous seminar's ending time.

<IMPORTANT>

- Please arrive at the seminar rooms before the start time. If you do not show up in the room by the start time, your box lunch will be provided to another attendee who does not have a ticket.
- You can attend those seminars without tickets, however, a box lunch will not be served.

## 7. Commercial Exhibition – Exhibition of Machineries and Reagents

Exhibitions of machineries and reagents will be held. There will be a resting space and drink service in the exhibition space.

If you collect stamps by visiting exhibition booths, you can get gifts provided by exhibitors. You have a chance to win a special gift. Look forward to your participation in the stamp rally.

## 8. Get Together Party

Date and Time: January 18, 18:45-20:45

Venue: 2F "Tsuru", The New Otani Makuhari

Fee: Member • Non-Member JPY4,000 Student • Student Non-Member JPY1,000

Registration desk: Entrance Lobby, 1F

The number of participants is limited. We recommend you register as early as possible.

## 9. Internet access

Free Wi-Fi is available in the venue. The SSID and password to use Wi-Fi will be displayed in the venue.

## 10. Photographing and recording

Photographing and recording are prohibited in all sessions. However, photographing and recording by those who have obtained permission from the JSI may be granted.





# Overview Talk



# Program for Overview Talks

8:30 ~ 9:00, Wednesday, January 17

## OT01 Overview Talk 01 Room A: Convention Hall A

Chairpersons: Ken Ishii (The Institute of Medical Science, The University of Tokyo)  
Katherine Kedzierska (University of Melbourne and Doherty Institute)

### Overview of the immunological basis for vaccination

Takeshi Inoue Pandemic Preparedness, Infection and Advanced Research Center (UTOPIA), The University of Tokyo

8:30 ~ 9:00, Wednesday, January 17

## OT02 Overview Talk 02 Room B: Convention Hall B

Chairpersons: Toshinori Nakayama (Chiba University)  
Laura K. Mackay (The University of Melbourne The Peter Doherty Institute of Infection and Immunity)

### Maintenance of memory lymphocytes

Koji Tokoyoda Division of Immunology, School of Life Science, Faculty of Medicine, Tottori University

8:30 ~ 9:00, Wednesday, January 17

## OT03 Overview Talk 03 Room C: International Conference Room

Chairpersons: Koji Hase (Faculty of Pharmacy, Keio University)  
Yumiko Imai (Center for Vaccine and Adjuvant Research National Institutes of Biomedical Innovation, Health and Nutrition)

### The mucosal immune system as a protective platform against pathogens

Yoshiyuki Goto Medical Mycology Research Center, Chiba University

8:30 ~ 9:00, Wednesday, January 17

## OT04 Overview Talk 04 Room D: 201

Chairpersons: Kensuke Miyake (The University of Tokyo)  
Tsuneyasu Kaisho (Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University)

### Decoding storage diseases to understand self-referential immune responses

Kensuke Miyake Div Innate Immunity, Inst Med Sci, The University of Tokyo

8:30 ~ 9:00, Wednesday, January 17

## OT05 Overview Talk 05 Room E: 301

Chairpersons: Ichiro Manabe (Chiba University Graduate School of Medicine)  
Yumiko Oishi (Nippon Medical School)

### Immunometabolic crosstalk: overview

Ichiro Manabe Chiba University

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8:30 ~ 8:50, Thursday, January 18

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**OT06 Overview Talk 06** Room A: Convention Hall A

Chairpersons: Shohei Hori (Graduate School of Pharmaceutical Sciences The University of Tokyo)  
Sayuri Yamazaki (Department of Immunology, Graduate School of Medical Sciences Nagoya City University)

**Regulation of T cell responses in health and disease**

Shohei Hori Graduate School of Pharmaceutical Sciences, The University of Tokyo

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8:30 ~ 9:00, Thursday, January 18

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**OT07 Overview Talk 07** Room B: Convention Hall B

Chairpersons: Kiyoshi Hirahara (Department of Immunology, Graduate School of Medicine Chiba University)  
Motoko Yanagita (Department of Nephrology, Graduate School of Medicine, Kyoto University)

**Inflammation driven fibrosis and tissue repair**

Kiyoshi Hirahara Department of Immunology, Graduate School of Medicine, Chiba University

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8:30 ~ 9:00, Thursday, January 18

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**OT08 Overview Talk 08** Room C: International Conference Room

Chairpersons: Keishi Fujio (Department of Allergy and Rheumatology Graduate School of Medicine, The University of Tokyo)  
Sachiko Miyake (Department of Immunology, Juntendo University School of Medicine)

**Autoimmunity pathology elucidated by immune system-wide investigation using multi-omics datasets**

Kazuyoshi Ishigaki Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences / Human Biology-Microbiome-Quantum Research Center (WPI-Bio2Q), Keio University

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8:30 ~ 9:00, Thursday, January 18

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**OT09 Overview Talk 09** Room D: 201

Chairpersons: Masato Kubo (Research Institute for Biomedical Science, Tokyo University of Science•RIKEN  
Center for Integrative Medical Sciences (IMS))  
Satoko TAHARA-HANAOKA (Life Science Center for Survival Dynamics, Institute of Medicine University of Tsukuba)

**Current understanding of immunological barriers and allergic march**

Satoko TAHARA-HANAOKA Department of Immunology, Institute of Medicine, Life Science Center for Survival Dynamics, University of Tsukuba

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8:30 ~ 9:00, Thursday, January 18

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**OT10 Overview Talk 10** Room E: 301

Chairpersons: Masaaki Murakmai (Institute for Genetic Medicine)  
Takanori Kanai (Department of Medicine Keio University)

**Overview talk in symposium A New Era of Neuro-immune Crosstalk**

Shintaro Hojyo Molecular Psychoneuroimmunology, Institute for Genetic Medicine, Hokkaido University / Group of Quantum Immunology, Institute for Quantum Life Science, National Institute for Quantum and Radiological Science and Technology / Institute for Vaccine Research and Development, Hokkaido University

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8:30 ~ 9:00, Friday, January 19

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**OT11 Overview Talk 11** Room A: Convention Hall A

Chairpersons: Shinichiro Motohashi (Department of Medical Immunology, Graduate School of Medicine, Chiba University)  
Yuka Maeda (Division of Cancer Immunology, Research Institute/Exploratory Oncology Research & Clinical Trial Center (EPOC) National Cancer Center)

**Cancer immunotherapy in progress -overview talk-**

Hiroaki Ikeda Dept. Oncology, Nagasaki Univ. Grad. Sch. Biomed. Sci.

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8:30 ~ 9:00, Friday, January 19

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**OT12 Overview Talk 12** Room B: Convention Hall B

Chairpersons: Haruhiko Koseki (RIKEN Center for Integrative Medical Sciences)  
Atsushi Onodera (Chiba University Institute for Advanced Academic Research (IAAR))

**Epigenetic regulation in health and disease**

Atsushi Onodera Institute for Advanced Academic Research (IAAR), Chiba University / Research Institute of Disaster Medicine (RIDS)

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8:30 ~ 9:00, Friday, January 19

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**OT13 Overview Talk 13** Room C: International Conference Room

Chairpersons: Yuki Kinjo (The Jikei University School of Medicine)  
Kazuyo Moro (Laboratory for Innate Immune Systems, School of Medicine Osaka University )

**Innate and innate-like lymphocytes: not the same, but not so different**

Mitchell Kronenberg La Jolla Institute for Immunology

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8:30 ~ 9:00, Friday, January 19

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**OT14 Overview Talk 14** Room D: 201

Chairpersons: Ichiro Taniuchi (Lab for Transcriptional Regulation RIKEN)  
Motoko Kimura (Graduate school of medicine Chiba University)

**Recent progress of lymphocyte development in the thymus**

Motoko Y. Kimura Chiba University

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8:30 ~ 9:00, Friday, January 19

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**OT15 Overview Talk 15** Room E: 301

Chairpersons: Daisuke Kitamura (Research Institute for Biomedical Sciences, Tokyo University of Science)  
Wataru Ise (Division of Microbiology and Immunology, Regulation of Host Defense Team Osaka University, Center for Infectious Disease Education and Research)

**Understanding humoral immunity by multi-disciplinary approach**

Yoshimasa Takahashi National Institute of Infectious Diseases



# Symposium





# Program for Symposia

Symposium 01

Room A 9:00 ~ 11:30 January 17

## S01. Vaccine mechanism and design: AMED-SCARDA Co-organized Session

Chairpersons: Ken J Ishii (The Institute of Medical Science, The University of Tokyo)  
Katherine Kedzierska (University of Melbourne and Doherty Institute)

**S01-01**

9:00~9:30

### **Cationic Nanogel-based Nasal Vaccines against Respiratory Infections**

Rika Nakahashi Chiba University Hospital, Department of Human Vaccinology

**S01-02**

9:30~10:00

### **The CD4+ T cell Responses to COVID-19 mRNA Vaccines**

Hideki Ueno Department of Immunology, Graduate School of Medicine, Kyoto University

**S01-03**

10:00~10:30

### **Influenza and SARS-CoV-2 virus infection and vaccination relies on a network of T cell and B cell immunity**

Katherine Kedzierska University of Melbourne & Doherty Institute, Australia / Institute for Vaccine Research and Development, Hokkaido University, Sapporo, Japan

**S01-04**

10:30~11:00

### **Development of broadly protective vaccines against influenza virus**

Florian Krammer Department of Microbiology, Icahn School of Medicine at Mount Sinai, New York, NY

**S01-05**

11:00~11:30

### **Science and Design for nucleic-acid-based vaccine**

Ken J Ishii Division of Vaccine Science, The Institute of Medical Science, The University of Tokyo

Symposium 02

Room B 9:00 ~ 11:30 January 17

## S02. Immunological memory: AMED-CREST "Immune Memory" Sponsored Session

Chairpersons: Toshinori Nakayama (Chiba University)  
Laura K. Mackay (The University of Melbourne The Peter Doherty Institute of Infection and Immunity)

**S02-01**

9:00~9:25

### **Memory-type pathogenic Th2 (Tpath2) cells in airway inflammation**

Toshinori Nakayama Chiba University

**S02-02**

9:25~9:50

### **Axon guidance molecules coordinate neural-metabolic-inflammatory outputs from the brain**

Atsushi Kumanogoh Department of Respiratory Medicine and Clinical Immunology, Graduate School of medicine, Osaka University

**S02-03**

9:50~10:15

### **Inter-organ diversity of tissue-resident lymphocytes**

Laura Mackay Department of Microbiology and Immunology, The University of Melbourne at The Peter Doherty Institute for Infection and Immunity, Melbourne, VIC, Australia

**S02-04**

10:15~10:40

### **Heterogeneity and molecular regulation of intestinal tissue-resident memory CD8 T cells**

John Chang University of California San Diego

**S02-05**

10:40~11:05

**Functional heterogeneity of tissue-resident memory T cells and its relevance to the pathogenesis of inflammatory bowel disease**

Mari Murakami Laboratory of Immune Regulation, Graduate School of Medicine, Osaka University, Japan / Immunology Frontier Research Center, Osaka University, Japan

**S02-06**

11:05~11:30

**Humoral immune memory elicited by COVID-19 vaccine**

Yoshimasa Takahashi National Institute of Infectious Diseases

Symposium 03

Room C 9:00 ~ 11:30 January 17

**S03. Mucosal immunity for the control of infection and inflammation: AMED-CREST "Immune Memory" Sponsored Session**

Chairpersons: Koji Hase (Faculty of Pharmacy, Keio University)  
 Yumiko Imai (Center for Vaccine and Adjuvant Research National Institutes of Biomedical Innovation, Health and Nutrition)

**S03-01**

9:00~9:30

**Clinical and basic analysis of neurological symptoms in long COVID**

Yumiko Imai National Institutes of Biomedical Innovation, Nutrition and Health

**S03-02**

9:30~10:00

**Immune-mediated mechanisms of tissue adaptation and maladaptation**

Shruti Naik NYU Langone Health

**S03-03**

10:00~10:30

**Microbial metabolite-associated aberrant activation of fibroblasts in development of ulcerative colitis.**

Hisako Kayama Institute for Advanced Co-Creation Studies, Osaka University

**S03-04**

10:30~11:00

**Commensal microorganisms cooperatively induce follicular helper T cells in Peyer's patches**

Koji Hase Facul. of Pharm and Grad. Sch. of Pham. Sci., Keio Univ. / IFeS, Faul. of Food and Agr. Sci., Fukushima Univ.

**S03-05**

11:00~11:30

**Host-microbe interactions in intestinal health and disease**

Ken Cadwell University of Pennsylvania Perelman School of Medicine

Symposium 04

Room D 9:00 ~ 11:30 January 17

**S04. Decoding storage diseases to understand self-referential immune responses: Transformative Research Areas (A) "Self-referential immune perception" co-organized session**

Chairpersons: Kensuke Miyake (The University of Tokyo)  
 Tsuneyasu Kaisho (Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University)

**S04-01**

9:00~9:25

**TLR7/8 stress response drives histiocytosis in SLC29A3 disorders**

Takuma Shibata The Institute of Medical Science, The University of Tokyo

**S04-02**

9:25~9:50

**Pattern Recognition Receptors Initiate Immune Responses in Gaucher Disease**

Charles Schutt Research Institute for Microbial Diseases, Osaka University

**S04-03**

9:50~10:20

**The pro-autophagic GTPase IRGM1 links mitochondrial housekeeping to autoimmunity and host defense**

Michael Fessler National Institute of Environmental Health Sciences/NIH, Research Triangle Park, NC USA

**S04-04**

10:20~10:50

**RNA lipidation facilitates cellular deposition and functional regulation of LDL-delivered small RNAs in macrophage lipid droplets.**

Kasey C Vickers Vanderbilt University Medical Center / Vanderbilt University

**S04-05**

10:50~11:15

**Inflammatory responses supported by the endolysosomal system of immune cells - making breakthroughs in therapeutic strategies for intractable diseases**

Noriko Toyama-Sorimachi The Institute of Medical Science, The University of Tokyo (IMSUT)

Symposium 05

Room E 9:00 ~ 11:30 January 17

**S05. Diverse immunometabolic communication in health and disease: US-Japan Immunology Program Co-organized Session**Chairpersons: Ichiro Manabe (Chiba University Graduate School of Medicine)  
Yumiko Oishi (Nippon Medical School)**S05-01**

9:00~9:30

**Identification of a novel subset of macrophage that regulate muscle repair and regeneration**

Yumiko Oishi Tokyo Medical and Dental University

**S05-02**

9:30~10:00

**Exploiting dynamic enhancer landscapes to decode macrophage phenotypes in health and disease**

Christopher K Glass UC San Diego

**S05-03**

10:00~10:30

**Macrophages of the heart**

Andres Hidalgo Yale School of Medicine

**S05-04**

10:30~11:00

**The sPLA<sub>2</sub> network in immunometabolic crosstalk**

Makoto Murakami The University of Tokyo Graduate School of Medicine

**S05-05**

11:00~11:30

**The novel function of lipid synthetic flux on ROR $\gamma$ t-mediated Th17 cell differentiation and pathogenicity**

Yusuke Endo Laboratory of Medical Omics Research, KAZUSA DNA RESEARCH INSTITUTE

Symposium 06

Room A 8:50 ~ 11:30 January 18

**S06. Regulation of T cell responses in health and disease: US-Japan Immunology Program Co-organized Session**Chairpersons: Shohei Hori (Graduate School of Pharmaceutical Sciences The University of Tokyo)  
Sayuri Yamazaki (Department of Immunology, Graduate School of Medical Sciences  
Nagoya City University)**S06-01**

8:50~9:13

**Notch2 and retinoic acid signals induce IL-23 expression by EpCAM<sup>+</sup> DCIR2<sup>+</sup> cDC2s in gut-associated lymphoid tissues**

Keiji Hirota Institute for Life and Medical Sciences, Kyoto University

**S06-02**

9:13~9:43

**CTLA-4-mediated regulation of T cell / B cell collaboration and autoimmunity**

Lucy Walker University College London

**S06-03**

9:43~10:06

**Regulation of T cell activation by cis-PD-L1-CD80 interactions**

Daisuke Sugiura Laboratory of Molecular Immunology, Institute for Quantitative Biosciences, The University of Tokyo

**S06-04**

10:06~10:29

**Regulatory T cell-dendritic cell crosstalk as controllers of health and disease**

Sayuri Yamazaki Department of Immunology, Nagoya City University Graduate School of Medical Sciences

**S06-05**

10:29~10:59

**Foxp3<sup>DExon2</sup>-expressing mice develop spontaneous autoimmunity that is exacerbated by UVB exposure**

Steven F Ziegler Center for Fundamental Immunology, Benaroya Research Institute

**S06-06**

10:59~11:30

**An emergent theme in Treg biology: tissue-Treg control of parenchymal-tissue stem/progenitor cells**

Diane Mathis Department of Immunology, Harvard Medical School

Symposium 07

Room B 9:00 ~ 11:30 January 18

**S07. Inflammation driven fibrosis and tissue repair: KAI-JSI Joint Session**

Chairpersons: Kiyoshi Hirahara (Department of Immunology, Graduate School of Medicine Chiba University)  
 Motoko Yanagita (Department of Nephrology, Graduate School of Medicine, Kyoto University)

**S07-01**

9:00~9:25

**Tissue-destructive fibroblasts in arthritis and stromal immunology**

Hiroshi Takayanagi Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo

**S07-02**

9:25~9:50

**Tertiary lymphoid tissues function as inflammation amplifiers via interactions between immune cells and proinflammatory parenchymal cells in the kidney**

Motoko Yanagita Department of Nephrology, Graduate School of Medicine, Kyoto University

**S07-03**

9:50~10:15

**Innate Immune Memory in Diseases of the Aging Eye**

Przemyslaw Sapieha University of Montreal

**S07-04**

10:15~10:40

**Diverse macrophages in the central nervous system**

Takahiro Masuda Medical Institute of Bioregulation, Kyushu University

**S07-05**

10:40~11:05

**Macrophages in lung inflammation and repair**

Ruth Franklin Harvard University / Harvard Medical School

**S07-06**

11:05~11:30

**Double-Edged SiglecF+ Neutrophils: Orchestrators of Airway Inflammation and Renal Fibrosis**

Hye Young Kim Seoul National University College of Medicine

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## S08. Autoimmune disease and systems immunology: JSI-JCR Joint Session

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Chairpersons: Keishi Fujio (Department of Allergy and Rheumatology Graduate School of Medicine, The University of Tokyo)  
Sachiko Miyake (Department of Immunology, Juntendo University School of Medicine)

**S08-01**

9:00~9:30

**Regulation of CXCL13+ T peripheral helper cells and T follicular helper cells**

Deepak Rao Brigham and Women's Hospital

**S08-02**

9:30~10:00

**Multi-omic molecular profiling of immune-mediated inflammatory diseases**

Katsuya Suzuki National Hospital Organization Tokyo Medical Center / Keio University

**S08-03**

10:00~10:30

**Autoreactive B cell responses in rheumatic disease; what makes them different?**

Rene Toes Dept. of rheumatology, Leiden University Medical Center, Leiden, The Netherlands

**S08-04**

10:30~11:00

**The skewing of the B cell receptor repertoire in unswitched memory B cells correlates with the disease activity of systemic lupus erythematosus**

Keishi Fujio Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo

**S08-05**

11:00~11:30

**Visualization and identification of pathogenic macrophages in autoimmune diseases**

Masaru Ishii Department of Immunology and Cell Biology, Graduate School of Medicine and Frontier Biosciences, Osaka University

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## S09. Recent advances in immunological barriers and allergic march: JSI-JSA Joint Session

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Chairpersons: Masato Kubo (Research Institute for Biomedical Science, Tokyo University of Science•RIKEN Center for Integrative Medical Sciences (IMS))  
Satoko Tahara-Hanaoka (Life Science Center for Survival Dynamics, Institute of Medicine University of Tsukuba)

**S09-01**

9:00~9:30

**Recent advances in immunological barriers and allergic march**

Stephanie C Eisenbarth Northwestern Univ Feinberg Sch of Med

**S09-02**

9:30~10:00

**Role of IL-13 signal in allergic march caused by atopic dermatitis**

Masato Kubo Tokyo University of Science / Riken IMS

**S09-03**

10:00~10:30

**Toward stopping the atopic march: unraveling cellular and molecular mechanisms of cutaneous sensitization**

Mei Li Institut de Génétique et de Biologie Moléculaire et Cellulaire (IGBMC)-CNRS UMR7104 /Inserm U1258/University of Strasbourg-France

**S09-04**

10:30~11:00

**Neonatal skin microbiome and immune response in infantile atopic dermatitis development**

Yumi Matsuoka-Nakamura Osaka Univ.

**S09-05**

11:00~11:30

**Oral tolerance hampers the induction of cutaneous delayed-type hypersensitivity**

Kenji Kabashima Department of Dermatology, Kyoto University Graduate School of Medicine

## S10. Neural signaling in immunology: AMED-Moonshot "Regulation of microinflammation" Co- organized Session US-Japan Immunology Program Co-organized Session

Chairpersons: Masaaki Murakmai (Institute for Genetic Medicine)  
Takanori Kanai (Department of Medicine Keio University)

**S10-01**

9:00~9:30

### The Gut Microbiota-Induced Kynurenic Acid Recruits GPR35 positive Macrophages to Promote Experimental Encephalitis

Tomohisa Sujino Keio University, Center for Diagnosis and Therapeutic Endoscopy

**S10-02**

9:30~10:00

### Nociceptor neuron regulation of barrier immunity

Isaac Chiu Harvard Medical School

**S10-03**

10:00~10:30

### Remembering immunity: central control of immune processes

Hilla Azulay-Debby Technion- Israel Institute of Technology

**S10-04**

10:30~11:00

### The Gateway Reflex: a novel neuro-immune mechanism regulating tissue specific inflammatory diseases

Rie Hasebe National Institute for Physiological Sciences

**S10-05**

11:00~11:30

### Hacking Neural Circuits to Treat Inflammation

Sangeeta S. Chavan Professor, Institute of Bioelectronic Medicine, The Feinstein Institutes for Medical Research

## S11. Cancer immunotherapy: Sponsored by International Immunology

Chairpersons: Shinichiro Motohashi (Department of Medical Immunology, Graduate School of Medicine, Chiba University)

Yuka Maeda (Division of Cancer Immunology, Research Institute/Exploratory Oncology Research & Clinical Trial Center (EPOC) National Cancer Center)

**S11-01**

9:00~9:35

### Enhancing CAR T Cell Responses to Blood Cancers

Carl June University of Pennsylvania

**S11-02**

9:35~10:00

### Immune-genome precision medicine targeting immune suppression in the tumor microenvironment

Hiroyoshi Nishikawa Division of Cancer Immunology, Research Institute, National Cancer Center / Department of Immunology, Nagoya University Graduate School of Medicine

**S11-03**

10:00~10:35

### Research and development of novel CAR-T cell therapies

Naoto Hirano Princess Margaret Cancer Centre / University of Toronto

**S11-04**

10:35~11:00

**CAR-T cells expressing both IL-7 and CCL19 induce epitope spreading via cross presentation of endogenous tumor antigens**

Koji Tamada Yamaguchi University Graduate School of Medicine, Department of Immunology

**S11-05**

11:00~11:25

**Clinical application of iPS cell-derived NKT cells to cancer immunotherapy**

Shinichiro Motohashi Department of Medical Immunology, Graduate School of Medicine, Chiba Univ.

Symposium 12

Room B 9:00 ~ 11:30 January 19

**S12. Epigenetics in immunology**

Chairpersons: Haruhiko Koseki (RIKEN Center for Integrative Medical Sciences)  
 Atsushi Onodera (Chiba University Institute for Advanced Academic Research (IAAR))

**S12-01**

9:00~9:30

**Translating Cytokine Signaling: Lessons Learned and Future Opportunities**

John OShea National Institute of Arthritis and Musculoskeletal and Skin Diseases

**S12-02**

9:30~10:00

**The role of TET deficiency in T cell expansion, T regulatory cell function and inflammation**

Anjana Rao La Jolla Institute for Immunology

**S12-03**

10:00~10:30

**Chromatin-level regulation of neural stem cell fate during mouse neocortical development**

Yukiko Gotoh The University of Tokyo

**S12-04**

10:30~11:00

**PCGF1-PRC1 links chromatin replication and cell fate determination during hematopoietic cell lineage commitment**

Junichiro Takano Division of Developmental Genetics, RIKEN IMS

**S12-05**

11:00~11:30

**Importance of naïve Treg-specific DNA hypomethylation in autoimmune disease susceptibility**

Naganari Ohkura IFRc, Osaka University

Symposium 13

Room C 9:00 ~ 11:30 January 19

**S13. Innate-like T cells and ILCs: ASI-JSI Joint Session**

Chairpersons: Yuki Kinjo (The Jikei University School of Medicine)  
 Kazuyo Moro (Laboratory for Innate Immune Systems, School of Medicine Osaka University)

**S13-01**

9:03~9:27

**The role of group 2 innate lymphoid cells in ulcerative colitis**

Kazuyo Moro Laboratory for Innate Immune Systems, Graduate School of Medicine, Osaka University / Laboratory for Innate Immune Systems, RIKEN-IMS / Laboratory for Innate Immune Systems, IFRc, Osaka-University

**S13-02**

9:27~9:51

**Exhaustion and Activation-Induced Cell Death of ILC2s in chronic allergy**

Takashi Ebihara Department of Medical Biology, Akita University Graduate School of Medicine

**S13-03**

9:51~10:15

**Type I innate lymphoid cells: the unique roles in protecting from drug and ischemia-induced liver injuries**

Akira Shibuya Department of Immunology, Institute of Medicine, University of Tsukuba / R&amp;D Center for Innovative Drug Discovery, University of Tsukuba

**S13-04**

10:15~10:39

***V $\gamma$ 9V $\delta$ 2* T cells recognize butyrophilin 2A1 and 3A1 heteromers**

Adam P Uldrich Department of Microbiology &amp; Immunology at the Peter Doherty Institute for Infection and Immunity, University of Melbourne, Parkville, Victoria, 3010, Australia / Cancer Immunology Program, Peter MacCallum Cancer Centre, Melbourne, Australia

**S13-05**

10:39~11:03

**Cellular CD1 lipidomes reveal lipid binding motifs and three general size-based antigen display mechanisms**

D. Branch Moody Brigham and Women's Hospital - Harvard Medical School

**S13-06**

11:03~11:27

**Memory responses by innate-like T cells**

Mitchell Kronenberg La Jolla Institute for Immunology

Symposium 14

Room D 9:00 ~ 11:30 January 19

**S14. Immune system development: SFI-JSI Joint Session**Chairpersons: Ichiro Taniuchi (Lab for Transcriptional Regulation RIKEN)  
Motoko Kimura (Graduate school of medicine Chiba University)**S14-01**

9:00~9:30

**The RANKL-RANK-OPG system in thymic epithelial cells poses an immunological trade-off between self- and non-self-recognition by T cells**

Takeshi Nitta Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo

**S14-02**

9:30~10:00

**Regulatory mechanism of ROR $\gamma$ t expression in innate and adaptive lymphocytes**

Shinichiro Sawa Kyushu University

**S14-03**

10:00~10:30

**MAIT cell development**

Olivier Lantz Institut Curie, Paris, France

**S14-04**

10:30~11:00

**How T lineage fate is decided in the thymus**

Alfred Singer National Cancer Institute

**S14-05**

11:00~11:30

**Roles of Runx transcription factors during immune system development**

Ichiro Taniuchi RIKEN. Lab for Transcriptional Regulation

Symposium 15

Room E 9:00 ~ 11:30 January 19

**S15. Humoral Immunity: DGFI-JSI Joint Session**Chairpersons: Daisuke Kitamura (Research Institute for Biomedical Sciences, Tokyo University of Science)  
Wataru Ise (Division of Microbiology and Immunology, Regulation of Host Defense Team  
Osaka University, Center for Infectious Disease Education and Research)**S15-01**

9:00~9:30

**Regulation of plasma cell survival and migration to the bone marrow for establishing long-term antibody response**

Wataru Ise Center for Infectious Disease Education and Research, Osaka University

**S15-02**

9:30~10:00

**Memory B and Plasma Cells of the Bone Marrow**

Andreas Radbruch DRFZ Berlin / Charite University Medicine Berlin



**S15-03**

10:00~10:30

**The Role of Locality in Humoral Immunity**

Garnett Kelsoe Duke University

**S15-04**

10:30~11:00

**Senescence-associated CD4<sup>+</sup> T cells and autoimmune pathology**

Yuji Fukushima Kyoto University Graduate School of Medicine

**S15-05**

11:00~11:30

**Autoantibodies induced by commensal bacteria in the pathogenesis of IgA nephropathy**

Daisuke Kitamura Research Institute for Biomedical Sciences, Tokyo University of Science



# Workshop

○ : Presenter



# Program for Workshops

January 17

## WS01 Infection immunity 1

15:30 ~ 16:45 Room A

Chairpersons: Tadahiro Suenaga, Miwa Sasai

There are a variety of pathogens that are harmful for human and animal health in the world. These pathogens proliferate in the body while countering the host defenses. Although both innate and acquired immunity are involved in the elimination of the foreign enemies, microorganisms possess various weapons to evade these immune systems. In this session, we will discuss the relationship between immunity and intracellular pathogens such as viruses, malaria protozoa or toxoplasma protozoa as well as extracellular pathogens such as helminths including nematodes or trematodes. In particular, the interaction of these pathogens to immune cell signaling and the immune response and the vaccination against these pathogens will be better understood in this opportunity.

WS01-02-O/P

### Immunosuppression by CXCR2+ MDSC-like cells exacerbates defense responses of the central nervous system after viral infection

○ Akisawa Satomi<sup>1</sup>, Tomohiko Okazaki<sup>2</sup>, Yukiko Gotoh<sup>1</sup>

<sup>1</sup>Tokyo Univ., <sup>2</sup>Hokkaido Univ.

WS01-05-O/P

### A protective role of Regnase-4 in HSV-1 infection in mice

○ Junichi Aoki<sup>1,2</sup>, Keiko Yasuda<sup>1</sup>, Kotaro Tanaka<sup>1</sup>, Osamu Takeuchi<sup>1</sup>

<sup>1</sup>Department of Medical Chemistry, Graduate School of Medicine, Kyoto University, <sup>2</sup>Orthopaedic Surgery, Osaka University Graduate School of Medicine

WS01-08-O/P

### Functional heterogeneity and clonal alterations of cytomegalovirus-specific T cell response during pregnancy

○ Ayumi Taguchi<sup>1,2</sup>, Shuhei Sakakibara<sup>1</sup>, Fumi Misumi<sup>2</sup>, Shunsuke Teraguchi<sup>3</sup>, Takeshi Nagamatsu<sup>2,4</sup>, Mari Ichinose<sup>2</sup>, David Priest<sup>1</sup>, Janyerkye Tulyeu<sup>1</sup>, Jonas Nørskov Søndergaard<sup>1,5</sup>, Takayuki Iriyama<sup>2</sup>, Yutaka Osuga<sup>2</sup>, James Wing<sup>1,5</sup>

<sup>1</sup>WPI Immunology Frontier Research Center, Osaka University, <sup>2</sup>Department of Obstetrics and Gynecology, Graduate School of Medicine, The University of Tokyo, <sup>3</sup>Faculty of Data Science, Shiga University, <sup>4</sup>Department of Obstetrics and Gynecology, International University of Health and Wealth, <sup>5</sup>Center for Infectious Disease Education and Research, Osaka University

WS01-09-O/P

### Single-cell transcriptomics revealed the expansion of skin-homing lymphocytes in natural dengue infection one day before defervescence

○ Anunya Opasawatchai<sup>1,2,3,4</sup>, Jantrika Kumar Arora<sup>5</sup>, Tiraput Poonpanichakul<sup>6</sup>, Natnicha Jiravejchakul<sup>6</sup>, Waradon Sungnak<sup>3,4,6</sup>, Denfree Consortium<sup>\*\*</sup>, Oranart Matangkasombut<sup>7</sup>, Sarah A. Teichmann<sup>8</sup>, Ponpan Matangkasombut<sup>4,6</sup>, Varodom Charoensawan<sup>3,4,5</sup>

<sup>1</sup>Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences, Japan, <sup>2</sup>Department of Oral Microbiology, Faculty of Dentistry, Mahidol University, Thailand, <sup>3</sup>Integrative Computational Bioscience (ICBS) Center, Mahidol University, Thailand, <sup>4</sup>Systems Biology of Diseases Research Unit, Faculty of Science Mahidol University, Thailand, <sup>5</sup>Department of Biochemistry, Faculty of Science, Mahidol University, Thailand, <sup>6</sup>Department of Microbiology, Faculty of Science, Mahidol University, Thailand, <sup>7</sup>Department of Microbiology and Center of Excellence on Oral Microbiology and Immunology, Faculty of Dentistry, Chulalongkorn University, Thailand, <sup>8</sup>Wellcome Sanger Institute, Wellcome Trust Genome Campus, UK

WS01-12-O/P

### Temporal changes in gastrointestinal mucosal immune system during *Plasmodium* Infection

○ Mariko Kamioka<sup>1,2</sup>, Julia Matsuo-Dapaah<sup>1,3</sup>, Michelle Sue Jann Lee<sup>1,4</sup>, Cevayir Coban<sup>1,3,4</sup>

<sup>1</sup>Division of Malaria Immunology, Department of Microbiology and Immunology, Institute of Medical Science, University of Tokyo (IMSUT), <sup>2</sup>JSPS Research Fellowship for Young Scientists, Japan Society for the Promotion of Science, <sup>3</sup>Graduate School of Medicine, The University of Tokyo, <sup>4</sup>International Vaccine Design Center, Institute of Medical Science, The University of Tokyo (IMSUT)

WS01-14-O/P

### CD4<sup>+</sup> T cells specific for the *Plasmodium falciparum* circumsporozoite protein form resident memory population in the liver and may directly kill liver stage parasites in vivo

○ Hannah Gabrielle Kelly<sup>1</sup>, Xin (Andy) Gao<sup>1</sup>, Patricia Carreira<sup>1</sup>, Ines Atmosukarto<sup>2</sup>, Mireille Lahoud<sup>3</sup>, Irene Caminschi<sup>3</sup>, Lynette Beattie<sup>4</sup>, Ian Cockburn<sup>1</sup>

<sup>1</sup>Department of Immunology and Infectious Disease, John Curtin School of Medical Research, The Australian National University, Canberra, ACT 2601, Australia, <sup>2</sup>Lipotek Pty Ltd, Canberra, ACT 2601, Australia, <sup>3</sup>Department of Biochemistry and Molecular Biology, Monash Biomedicine Discovery Institute, Monash University, VIC 3800, Australia, <sup>4</sup>Department of Microbiology and Immunology, Peter Doherty Institute for Infection and Immunity, Parkville, VIC 3010, Australia

WS01-16-O/P

### Microbial-ligand independent regulation of lymphopoiesis by NOD1

○ Chiaki Iwamura<sup>1,2</sup>, Toshinori Nakayama<sup>1</sup>, Alan Sher<sup>2</sup>, Dragana Jankovic<sup>2</sup>

<sup>1</sup>Chiba University, <sup>2</sup>National Institute of Health

WS01-19-O/P

### Unveiling *Opisthorchis viverrini* Tetraspanins: Key player in Extracellular Vesicle-Mediated Host-Parasite interaction

○ Sujitra Chaiyadet<sup>1</sup>, Wuttipong Phumrattanapapin<sup>2</sup>, Javier Sotillo<sup>3</sup>, Michael Smout<sup>4</sup>, Thewarach Laha<sup>2</sup>, Alex Loukas<sup>4</sup>

<sup>1</sup>Department of Tropical Medicine, Faculty of Medicine, Khon Kaen University, Thailand, <sup>2</sup>Department of Parasitology, Faculty of Medicine, Khon Kaen University, Thailand, <sup>3</sup>National microbiology centre, Instituto de salud Carlos III, Madrid, Spain, <sup>4</sup>Australian Institute of Tropical Health and Medicine, James Cook University, Australia

## WS02 Systemic autoimmune diseases

15:30 ~ 16:45 Room B

Chairpersons: Keishi Fujio, Keiko Yasuda

Recent multi-omics analyses have opened-up a new era in the research area of human autoimmune diseases. However, in silico data require support from in vitro and/or in vivo observation to become valuable from the clinical point of view. This session consists of qualified, intensive and sophisticated research topics that took advantage of recent technical innovation, covering systemic autoimmunity represented by systemic lupus erythematosus, Sjogren's syndrome and systemic vasculitides.

WS02-01-O/P

### Immunophenotypic Categorization: A New Approach to Systemic Immune-Mediated Diseases

○ Shinji Izuka<sup>1</sup>, Toshihiko Komai<sup>1</sup>, Takahiro Itamiya<sup>1</sup>, Mineto Ota<sup>1,2</sup>, Saeko Yamada<sup>1</sup>, Yasuo Nagafuchi<sup>1,2</sup>, Hirofumi Shoda<sup>1</sup>, Kosuke Matsuki<sup>3</sup>, Kazuhiko Yamamoto<sup>4</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, Japan, <sup>3</sup>Research Division, Chugai Pharmaceutical Co., Ltd., Yokohama, Kanagawa, Japan, <sup>4</sup>Laboratory for Autoimmune Diseases, Center for Integrative Medical Sciences, the Institute of Physical and Chemical Research (RIKEN), Japan

WS02-04-O/P

### Pathogenetic role of IFN $\gamma$ producing CD4<sup>+</sup>T cells in lupus model mice induced by TLR7 agonist imiquimod

○ Reona Tanimura, Yuya Kondo, Ryota Sato, Hiromitsu Asashima, Haruka Miki, Hiroto Tsuboi, Takayuki Sumida, Isao Matsumoto

Department of Rheumatology, Institute of Medicine, University of Tsukuba

WS02-06-O/P

### Identification of a novel age-associated CD4<sup>+</sup> T cell subset involved in the pathogenesis of systemic lupus erythematosus

○ Manaka Goto<sup>1</sup>, Hideyuki Takahashi<sup>1</sup>, Ryochi Yoshida<sup>1</sup>, Takahiro Itamiya<sup>1,2</sup>, Masahiro Nakano<sup>3,4</sup>, Kazuyoshi Ishigaki<sup>3</sup>, Mineto Ota<sup>1</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, <sup>3</sup>Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences, Yokohama, Kanagawa, Japan, <sup>4</sup>Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences, Yokohama, Kanagawa, Japan

WS02-11-O/P

### Analysis of patrolling monocytes that drive lupus nephritis

○ Reika Tanaka<sup>1</sup>, Yusuke Murakami<sup>1,2</sup>, Ryutarō Fukui<sup>1</sup>, Shigeru Kakuta<sup>3</sup>, Kensuke Miyake<sup>1</sup>

<sup>1</sup>Division of Innate Immunity, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>Faculty of Pharmacy, Department of Pharmaceutical Sciences & Research Institute of Pharmaceutical Sciences, Musashino University, <sup>3</sup>Laboratory of Biomedical Science, Graduate School of Agricultural and Life Sciences, The University of Tokyo

WS02-13-O/P

### The COMMD3/8 complex drives plasmablast differentiation of age-associated B cells in lupus

○ Taiichiro Shirai<sup>1,2</sup>, Kentaro Kuzuya<sup>1</sup>, Kazuhiro Suzuki<sup>1,2,3</sup>

<sup>1</sup>Laboratory of Immune Response Dynamics, Immunology Frontier Research Center, Osaka University, Japan, <sup>2</sup>Department of Immune Response Dynamics, Research Institute for Microbial Diseases, Osaka University, Japan, <sup>3</sup>Center for Infectious Disease Education and Research, Osaka University, Japan

WS02-15-O/P

### Single-cell multi-omics analysis identifies two distinct phenotypes of newly-onset MPO-ANCA associated vasculitis

○ Masayuki Nishide<sup>1,2,3</sup>, Masashi Narazaki<sup>1,3</sup>, Atsushi Kumanogoh<sup>1,2</sup>

<sup>1</sup>Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine, <sup>2</sup>Department of Immunopathology, World Premier International Research Center Initiative (WPI), Immunology Frontier Research Center (IFReC), Osaka University, <sup>3</sup>Department of Advanced Clinical and Translational Immunology, Osaka University Graduate School of Medicine

WS02-16-O/P

### Immunological signature shared by Adult-onset Still's disease and other autoinflammatory diseases revealed by transcriptome analysis

○ Ikuo Takazawa<sup>1</sup>, Haruka Tsuchiya<sup>1</sup>, Takahiro Itamiya<sup>1,2</sup>, Harumi Shirai<sup>1</sup>, Yumi Tsuchida<sup>1</sup>, Yasuo Nagafuchi<sup>1,2</sup>, Hirofumi Shoda<sup>1</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo

WS02-22-O/P

### Signaling pathways via TLR4 are involved in elevated expression of BAFF receptor, BR3, in peripheral monocytes of patients with primary Sjögren's syndrome

○ Keiko Yoshimoto, Yumi Ikeda, Katsuya Suzuki, Hiroyuki Fukui, Kotaro Matsumoto, Masaru Takeshita, Tsutomu Takeuchi, Yuko Kaneko

Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine

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## WS03 Macrophages and other innate immune cells in homeostasis

15:30 ~ 16:45 Room C

Chairpersons: Kenichi Asano, Miyako Tanaka

Innate immune cells were originally identified as aggressive white soldiers that attack and eliminate invading pathogens. Today, it is well established that they not only serve as our body's first line of defense but also play crucial roles in maintaining and restoring homeostasis. Macrophages, in particular, are equipped with a unique machinery known as the inflammasome system, which scrutinizes various stimuli for inflammation. Recent advances in our understanding of inflammasome activation suggest that some inflammasomes do not directly detect molecular patterns but respond to a wide range of perturbations in cytoplasmic homeostasis. This session will discuss the roles played by macrophages and other innate immune cells in disease formation and organogenesis. Novel findings in the mechanisms of inflammasome activation will also be introduced.

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WS03-01-O/P

### MAFB in macrophages suppress inflammation via ALOX15 in Acute Kidney Injury

○ Maho Kanai<sup>1</sup>, Teppei Nishino<sup>1</sup>, Akari Kimura<sup>1</sup>, Toshiaki Usui<sup>1,2</sup>, Naoki Morito<sup>1,2</sup>, Michito Hamada<sup>1</sup>, Satoru Takahashi<sup>1</sup>

<sup>1</sup>Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba, <sup>2</sup>Department of Nephrology, Faculty of Medicine, University of Tsukuba

WS03-02-O/P

### Clathrin heavy chain regulates NLRP3 inflammasome formation via endocytosis in macrophages

○ Hung Hiep Huynh<sup>1</sup>, Fumiyuki Sasaki<sup>1</sup>, Masumi Shimizu<sup>1</sup>, Akihiko Yoshimura<sup>2</sup>, Rimpei Morita<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2</sup>Keio University School of Medicine

WS03-05-O/P

### FoxO1 regulates the number of basophils in the peripheral tissues and basophil-dependent allergic inflammation

○ Junya Ito<sup>1</sup>, Kensuke Miyake<sup>1</sup>, Kazufusa Takahashi<sup>1</sup>, Shigeyuki Shichino<sup>2</sup>, Hajime Karasuyama<sup>1</sup>

<sup>1</sup>Inflammation, Infection and Immunity Laboratory, Advanced Research Institute, Tokyo Medical and Dental University, <sup>2</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute of Biomedical Sciences, Tokyo University of Science

WS03-07-O/P

### CD300a immunoreceptor exacerbates acute kidney injury and fibrosis after renal ischemia and reperfusion in mice

○ Hitoshi Koizumi<sup>1,2</sup>, Chigusa Nakahashi-Oda<sup>1,4</sup>, Kazuko Shibuya<sup>1,4</sup>, Akira Shibuya<sup>1,3,4</sup>

<sup>1</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, <sup>2</sup>Doctoral Program in Graduate School of Comprehensive Human Sciences, University of Tsukuba, <sup>3</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, <sup>4</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS03-08-O/P

### Sphingosine-1-phosphate lyase SGPL1 is required for NLRP3 inflammasome activation via the dynamic organization of endoplasmic reticulum and microtubules

○ Fumiyuki Sasaki, Masumi Shimizu, Rimpei Morita

Department of Microbiology and Immunology, Nippon Medical School, Tokyo, Japan

WS03-10-O/P

### The onset of parturition is delayed in fetal macrophage-deficient mice

○ Sunao Matsuzaka, Haruta Mogami, Yosuke Kawamura, Yu Matsuzaka, Eriko Yasuda, Asako Inohaya, Masahito Takakura, Yoshitsugu Chigusa, Masaki Mandai

Department of Gynecology and Obstetrics, Kyoto University Graduate School of Medicine

WS03-11-O/P

### CD300a immunoreceptor exacerbates heart injury and adverse remodeling after myocardial infarction and reperfusion in mice

○ Nanako Nishiyama<sup>1</sup>, Chigusa Nakahashi-Oda<sup>1,3</sup>, Akira Shibuya<sup>1,2,3</sup>, Kazuko Shibuya<sup>1,3</sup>

<sup>1</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, <sup>2</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, <sup>3</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS03-12-O/P

### A stress sensor IRE1 $\alpha$ is required for bacterial exotoxin-induced inflammasome activation in tissue-resident macrophages

○ Izumi Sasaki<sup>1</sup>, Yuri Fukuda-Ohta<sup>1</sup>, Shuhei Morita<sup>2</sup>, Daisuke Okuzaki<sup>3</sup>, Takashi Kato<sup>1</sup>, Koichi Furukawa<sup>4</sup>, Tsuneyasu Kaisho<sup>1</sup>

<sup>1</sup>Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Wakayama, Japan, <sup>2</sup>First Department of Medicine, Wakayama Medical University, Wakayama, Japan, <sup>3</sup>Genome Information Research Center, Research Institute for Microbial Diseases, Osaka University, Suita, Japan, <sup>4</sup>Department of Lifelong Sports and Health Sciences, Chubu University College of Life and Health Sciences, Kasugai, Japan

## WS04 Innate immunity

15:30 ~ 16:45 Room D

Chairpersons: Osamu Takeuchi, Shinobu Saijo

Innate immune recognition of pathogen-associated molecular patterns (PAMPs) as well as danger-associated molecular patterns (DAMPs) is mediated by pattern-recognition receptors (PRRs) including Toll-like receptors (TLRs), RIG-I-like receptors (RLRs), NOD-like receptors (NLRs), C-type lectin receptors (CLRs) and cGAS. The activation of the PRR signaling in innate immune cells is responsible for infectious and chronic inflammatory diseases. In this session, we will discuss recent findings on the roles of PRRs and innate immune cells in infectious and inflammatory diseases.

WS04-01-O/P

### Microbiome ssRNA as an environmental cue to activate TLR13-dependent tissue-protective programs in CD5L/AIM<sup>hi</sup> hepatic macrophages

○ Ryota Sato<sup>1</sup>, Kaiwen Liu<sup>1</sup>, Takuma Shibata<sup>1</sup>, Ryutaro Fukui<sup>1</sup>, Katsuaki Hoshino<sup>2</sup>, Toshikazu Kondo<sup>3</sup>, Toru Miyazaki<sup>4</sup>, Tsuneyasu Kaisho<sup>5</sup>, Kensuke Miyake<sup>1</sup>

<sup>1</sup>Division of Innate Immunity, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>Department of Immunology, Faculty of Medicine, Kagawa University, <sup>3</sup>Department of Forensic, Wakayama Medical University, <sup>4</sup>The Institute for AIM Medicine, <sup>5</sup>Department of Immunology, Institute of Advanced Medicine

WS04-02-O/P

### Fine tuning of TLR9 signaling triggered by CpG DNA-CXCL14 complex is mediated by Immunoglobulin superfamily proteins and scavenger receptors

○ Kosuke Tanegashima<sup>1</sup>, Risa Saito<sup>1,2</sup>, Riku Takahashi<sup>1,2</sup>, Manaka Hasebe<sup>1,3</sup>, Takahiko Hara<sup>1,2,3</sup>

<sup>1</sup>Stem cell project, Tokyo Metropolitan Institute of Medical Science, <sup>2</sup>Grad. Sch. of Tokyo Medical and Dental Univ., <sup>3</sup>Grad. Sch. Tokyo Metropol. Univ.



WS04-03-O/P

### **Nucleolus dysfunction-mediated DNA leaking forms innate immune priming under nutrition starvation and ribosomal diseases**

○ Ken Takashima, Hiroyuki Oshiumi

Department of Immunology, Graduate School of Medical Sciences, Faculty of Life Science, Kumamoto University

WS04-04-O/P

### **Human Dectin-1 is a ligand of CLEC-2 and regulates lymphatic development**

○ Taiki Ito<sup>1,2)</sup>, Shojiro Haji<sup>3)</sup>, Masamichi Nagae<sup>1,2)</sup>, Sho Yamasaki<sup>1,2)</sup>

<sup>1)</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, <sup>2)</sup>Immunology Frontier Research Center (IFReC), Osaka University, <sup>3)</sup>Department of Medicine and Bioregulatory Science, Graduate School of Medical Sciences, Kyushu University

WS04-05-O/P

### **TAK1-binding proteins (TAB) 2 and TAB3 are dispensable for TAK1 activation but redundantly required for TLR-induced cytokine production in macrophages**

○ Giichi Takaesu<sup>1,2,3)</sup>, Tanveer Ali<sup>2)</sup>, Osamu Takeuchi<sup>4)</sup>, Goro Matsuzaki<sup>1,2,3)</sup>

<sup>1)</sup>Trop. Biosp. Res. Ctr., Univ. Ryukyus, <sup>2)</sup>Dept. Host Defense, Grad. Sch. Med., Univ. Ryukyus, <sup>3)</sup>Adv. Med. Res. Ctr, Univ. Ryukyus., <sup>4)</sup>Dept. Med. Chem., Grad. Sch. Med., Kyoto Univ.

WS04-06-O/P

### **Distinct immune cell dynamics correlate with the immunogenicity and reactogenicity of COVID-19 vaccines**

○ Takayuki Matsumura, Tomohiro Takano, Ryutaro Kotaki, Yu Adachi, Saya Moriyama, Taishi Onodera, Kazutaka Terahara, Masanori Isogawa, Yoshimasa Takahashi

Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases

WS04-07-O/P

### **The behavioral duality of monocytes depends on the severity of inflammation-A new regulatory mechanism of inflammation by monocytes**

○ Masashi Kanayama, Megumi Akiyama, Toshiaki Ohteki

Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental Univ.

WS04-08-O/P

### **Immune checkpoint molecule Tim3 regulates microglial function and the development of Alzheimer's disease pathology**

○ Kimitoshi Kimura<sup>1,2,3,4)</sup>, Ayshwarya Subramanian<sup>1,2,3,5)</sup>, Zhuoran Yin<sup>1,2,3)</sup>, Ahad Khalilnezhad<sup>1,2,3)</sup>, Yufan Wu<sup>1,2,3,5)</sup>, Danyang He<sup>1,2,3)</sup>, Dennis J. Selkoe<sup>1,2,3)</sup>, Aviv Regev<sup>5)</sup>, Mario L. Suvà<sup>5,6)</sup>, Oleg Butovsky<sup>1,2,3)</sup>, Vijay K. Kuchroo<sup>1,2,3,5)</sup>

<sup>1)</sup>Evergrande Center for Immunologic Diseases, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA., <sup>2)</sup>Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA., <sup>3)</sup>Department of Neurology, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA., <sup>4)</sup>Department of Neurology, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>5)</sup>Broad Institute of MIT and Harvard, Cambridge, MA, USA., <sup>6)</sup>Department of Pathology and Center for Cancer Research, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA.

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## **WS05 Allergy-1**

15:30 ~ 16:45 Room E

Chairpersons: Satoko Tahara-Hanaoka, Kazuki Nagata

Nowadays a growing number of people have developed allergic diseases such as asthma, atopic dermatitis, contact hypersensitivity, allergic rhinitis, and food allergy. Allergic reaction is caused by the cross-talk among the epithelial barrier, microbiota, neurons, innate immunity, and adaptive immunity. Innate immune responses following the barrier dysfunction drive antigen-specific and non-specific allergic responses. Moreover, local allergic inflammation causes systemic allergic disorders. Despite the extensive studies, the fundamental principles of allergic reactions remained to be fully elucidated. In this session, we would like to discuss allergic reactions inclusively, focusing on the barrier function, neurons, innate immunity, adaptive immunity, immune regulation, and their application for medical treatments.

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WS05-01-O/P

### **Neonatal skin dysbiosis and altered Th2/Th17 signaling are associated with the development of infantile atopic dermatitis**

○ Tomoka Ito<sup>1)</sup>, Reika Aoyama<sup>1)</sup>, Seitaro Nakgawa<sup>1,2)</sup>, Yuriko Yamazaki<sup>1,3)</sup>, Naohiro Inohara<sup>4)</sup>, Yoko Ichikawa<sup>5)</sup>, Naoki Shimojo<sup>6)</sup>, Takashi Sugihira<sup>1,2)</sup>, Manabu Fujimoto<sup>1,7)</sup>, Yumi Matsuoka Nakamura<sup>1,2,3)</sup>

<sup>1)</sup>Department of Dermatology, Graduate School of Medicine, Osaka University, <sup>2)</sup>Department of Cutaneous Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>3)</sup>Cutaneous Allergy and Host Defense, Immunology Frontier Research Center, Osaka University, <sup>4)</sup>Department of Pathology and Rogel Cancer Center, University of Michigan Medical School, <sup>5)</sup>Ichikawa Clinic, <sup>6)</sup>Center for Preventive Medical Sciences, Chiba University, <sup>7)</sup>Cutaneous Immunology, Immunology Frontier Research Center, Osaka University

WS05-02-O/P

### **Staphylococcus aureus $\delta$ -toxin present on skin promotes the development of food allergy in an IL-1 $\alpha$ -dependent manner in murine model**

○ Hiromichi Yamada<sup>1,2</sup>, Ayako Kaitani<sup>1</sup>, Kumi Izawa<sup>1</sup>, Tomoaki Ando<sup>1</sup>, Shino Uchida<sup>1</sup>, Risa Yamamoto<sup>1</sup>, Akie Maehara<sup>1</sup>, Shun Toriumi<sup>1,2</sup>, Naoko Negishi<sup>1</sup>, Nobuhiro Nakano<sup>1</sup>, Ko Okumura<sup>1</sup>, Jiro Kitaura<sup>1</sup>

<sup>1</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2</sup>Department of Pediatrics and Adolescent Medicine, Juntendo University Graduate School of Medicine

WS05-04-O/P

### **Psychological stress enhances scratching behavior in atopic dermatitis by increasing sensitivity of sensory nerves**

○ Kei Nagao<sup>1,2</sup>, Soichiro Yoshikawa<sup>1</sup>, Syuhei Sano<sup>1</sup>, Toshiro Takai<sup>3</sup>, Sachiko Miyake<sup>3</sup>

<sup>1</sup>Department of Immunology, Juntendo University Graduate School of Medicine, <sup>2</sup>Department of Cellular Physiology Okayama University Graduate School of Medicine, <sup>3</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine

WS05-06-O/P

### **Roles of GATA3 in LPS-induced cytokine expression in mast cells**

○ Yuki Goto, Kazuki Nagata, Hiromi Takeuchi, Chiharu Nishiyama

Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science

WS05-11-O/P

### **miR-451a containing EVs suppress delayed-type hypersensitivity by regulating IL-17A producing T cells**

○ Takanobu Yoshida<sup>1,2</sup>, Ken Takashima<sup>1</sup>, Hiroyuki Oshiumi<sup>1</sup>

<sup>1</sup>Department of Immunology, Faculty of Life Sciences, Kumamoto University, <sup>2</sup>Department of Pediatrics, Faculty of Life Sciences, Kumamoto University

WS05-13-O/P

### **GATA3 dysfunction in follicular regulatory T cells may underlie selective dysregulation of type 2 humoral immunity in *Foxp3*<sup>A384T</sup> mice**

○ Shiki Masumoto, Akira Nakajima, Shohei Hori

Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS05-17-O/P

### **Comprehensive analysis of endotype-dependent efficacy of antibody therapies in asthma**

○ Hinami Kawahata<sup>1</sup>, Takuya Yashiro<sup>1</sup>, Kazuyo Moro<sup>1,2</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University,

<sup>2</sup>Laboratory for Innate Immune Systems, RIKEN-IMS

WS05-18-O/P

### **In vitro and in vivo efficacy of Fab fragments against human IgE C $\epsilon$ 2 in anaphylactic reactions**

○ Hexing Wang<sup>1</sup>, Tomoaki Ando<sup>1</sup>, Toshiaki Maruyama<sup>2</sup>, CJ Okumura<sup>2</sup>, Kumi Izawa<sup>1</sup>, Ayako Kaitani<sup>1</sup>, Akie Maehara<sup>1</sup>, Nobuhiro Nakano<sup>1</sup>, Ko Okumura<sup>1</sup>, Jiro Kitaura<sup>1</sup>

<sup>1</sup>Atopy (Allergy) research center, Juntendo University Graduate School of Medicine, <sup>2</sup>Abwiz Bio Inc.

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## **WS06 Cytokines and chemokines**

15:30 ~ 16:45 Room F

Chairpersons: Minako Ito, Rimpei Morita

Cytokines and chemokines are highly diverse signaling molecules that are released from various cells regardless of cell type and tissue, and have several functions on differentiation, activation, and trafficking of cells. In this workshop, we aim to discuss the significance of cytokines and chemokines in various pathophysiological models of different immune cells and organs.

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WS06-06-O/P

### **Absence of CCL5/CCR5 axis exaggerates thrombus formation through reduced uPA, tPA and VEGF expression in murine DVT model**

○ Mizuho Nosaka, Yuko Ishida, Yumi Kuninaka, Akiko Ishigami, Hiroki Yamamoto, Akihiko Kimura, Naofumi Mukaida, Toshikazu Kondo

Department of Forensic Medicine, Wakayama Medical University

WS06-07-O/P

### **CXCL12 derived from intestinal fibroblasts prevents tumorigenesis through modulation of epithelial cell metabolism**

○ Mayu Yagita<sup>1</sup>, Hisako Kayama<sup>2</sup>, Atsushi Kumanogoh<sup>1</sup>, Kiyoshi Takeda<sup>2</sup>

<sup>1</sup>Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University, <sup>2</sup>Laboratory of Immune Regulation, Department of Microbiology and Immunology, Osaka University Graduate School of Medicine

WS06-08-O/P

### Identification of the origin and function of soluble ST2 in asthma

○ Pei-Chi Lo<sup>1,2,4</sup>, Yasutaka Motomura<sup>1,2,4</sup>, Kazuyo Moro<sup>1,2,3,4</sup>

<sup>1</sup>Osaka University Immunology Frontier Research Center (IFReC), <sup>2</sup>Graduate School of Medicine, Osaka University, <sup>3</sup>Graduate School of Frontier Biosciences, Osaka University, <sup>4</sup>RIKEN IMS

WS06-14-O/P

### Adrenergic control of lymphocyte recirculation via formation of heteromeric complexes between the $\beta_2$ -adrenergic receptor and chemokine receptors

○ Akiko Nakai<sup>1,2</sup>, Kazuhiro Suzuki<sup>1,2,3</sup>

<sup>1</sup>Laboratory of Immune Response Dynamics, WPI Immunology Frontier Research Center, Osaka University, Osaka, Japan, <sup>2</sup>Department of Immune Response Dynamics, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan, <sup>3</sup>Center for Infectious Disease Education and Research, Osaka University

WS06-15-O/P

### IL-18: immune mediator from maternal uterus to placental development

○ Hajime Ino<sup>1,2</sup>, Yasuyuki Negishi<sup>1,2</sup>, Yumi Horii<sup>1,2</sup>, Eri Koike<sup>1</sup>, Richard A. Flavell<sup>3</sup>, Shunji Suzuki<sup>2</sup>, Rimpei Morita<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2</sup>Department of Obstetrics and Gynecology, Nippon Medical School, <sup>3</sup>Section of Immunobiology, Yale University School of Medicine

WS06-20-O/P

### Identification and characterization of putative enhancer regions that direct *IL6* transcription in murine macrophages

○ Norisuke Kano, Takeo Miki, Yurina Uehara, Daisuke Ori, Taro Kawai

Nara Institute science and technology

WS06-24-O/P

### A Computational model of IL-6-dependent disease progression in arthritis model (F759) mice

○ Hiroki Tanaka<sup>1</sup>, Reiji Yamamoto<sup>1,2</sup>, Satoshi Yamada<sup>3</sup>, Toru Atsumi<sup>1</sup>, Kaoru Murakami<sup>1</sup>, Ari Hashimoto<sup>2</sup>, Seiichiro Naito<sup>1</sup>, Akihiko Yoshimura<sup>4</sup>, Daisuke Kamimura<sup>1</sup>, Shintaro Hojo<sup>1</sup>, Shigeru Hashimoto<sup>1</sup>, Masaaki Murakami<sup>1,5,6</sup>

<sup>1</sup>Institute for Genetic Medicine, Hokkaido University, <sup>2</sup>Faculty of Medicine and Graduate School of Medicine, Hokkaido University, <sup>3</sup>Faculty of Information science and Engineering, Okayama University of Science, <sup>4</sup>School of Medicine, Keio University, <sup>5</sup>National Institute for Quantum and Radiological Science and Technology, <sup>6</sup>National Institute for Physiological Science, National Institute of Natural Science

WS06-27-O/P

### Fibroblast growth factor 18 stimulates the proliferation of hepatic stellate cells, thereby inducing liver fibrosis

○ Takao Seki<sup>1</sup>, Yuichi Tsuchiya<sup>2</sup>, Shigeyuki Shichino<sup>3</sup>, Takashi Nishina<sup>1</sup>, Soh Yamazaki<sup>1</sup>, Kouji Matsushima<sup>3</sup>, Hideo Yagita<sup>5</sup>, Ko Okumura<sup>6</sup>, Minoru Tanaka<sup>4</sup>, Hiroyasu Nakano<sup>1</sup>

<sup>1</sup>Department of Biochemistry, Faculty of Medicine, Toho University, <sup>2</sup>Department of Biochemistry, Faculty of Pharmaceutical Science, Toho University, <sup>3</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, <sup>4</sup>Department of Regenerative Medicine, Research Institute, National Center for Global Health and Medicine, <sup>5</sup>Department of Immunology, Faculty of Medicine and Graduate School of Medicine, Juntendo University, <sup>6</sup>Atopy Research Center, Faculty of Medicine and Graduate School of Medicine, Juntendo University

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## WS07 Tolerance and immune suppression-1

15:30 ~ 16:45 Room G

Chairpersons: Takashi Sekiya, Noriko Komatsu

Identification of various cell types and molecules involved in tolerance and immune suppression has innovated the therapies against intractable inflammatory diseases and cancers. Although the extensive researches in the field of tolerance and immune suppression have been fueling the modern therapies, represented by the development of cell-based therapies and biologics, there still remains an infinite space for their advancement. This session, focusing on tolerance and immune suppression, covers hot topics in this research area, as diverse as the functions of immune checkpoint molecules, intracellular regulatory events, development of a novel experimental strategy, and novel functions of immune regulatory cells. All of the works in this session have potentials to further advance the current medicine, thus, active discussion is welcomed.

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WS07-01-O/P

### Regulatory T cells tonically inhibit spontaneous activation of naturally arising memory-phenotype CD4<sup>+</sup> T lymphocytes

○ Jing Li, Ziyang Yang, Akihisa Kawajiri, Kosuke Sato, Shunichi Tayama, Naoto Ishii, Takeshi Kawabe

Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine

WS07-02-O/P

### Inhibition of AKT-mTOR signaling contributes to Foxp3-dependent induction of endogenous *Foxp3* transcription *in vivo*

○ Yuxi Wei, Hinako Ago, Shotaro Funatsu, Ryuichi Murakami, Akira Nakajima, Shohei Hori  
Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS07-03-O/P

### Single cell suppression profiling of human regulatory T cells

○ Jonas Nørskov Søndergaard<sup>1)</sup>, Janyerkye Tulyeu<sup>1)</sup>, David Priest<sup>2)</sup>, Shimon Sakaguchi<sup>3,4)</sup>, James B Wing<sup>1,2)</sup>  
<sup>1)</sup>Human Immunology Team, Center for Infectious Disease Education and Research (CIDER), Osaka University, Suita, Japan, <sup>2)</sup>Laboratory of Human Immunology (Single Cell Immunology), WPI Immunology Frontier Research Center (IFReC), Osaka University, Suita, Japan, <sup>3)</sup>Laboratory of Experimental Immunology, WPI Immunology Frontier Research Center (IFReC), Osaka University, Suita, Japan, <sup>4)</sup>Department of Experimental Pathology, Institute for Frontier Medical Sciences, Kyoto University, Kyoto, Japan

WS07-04-O/P

### Runx3/Cbfb $\beta$ regulates Ror $\gamma$ <sup>+</sup> Treg differentiation through Ror $\gamma$ <sup>+</sup> Thetic APCs in the gut

○ Chihiro Ogawa, Chengcheng Zou, Ichiro Taniuchi  
RIKEN Center for Integrative Medical Sciences, Laboratory for Transcriptional Regulation

WS07-05-O/P

### MHC class II limits microbiota-dependent activation of colonic CD8 T cells in a CD4 T cell- and LAG-3-dependent manner

○ Tomoya Sengiku<sup>1)</sup>, Masato Kubo<sup>2,3)</sup>, Shohei Hori<sup>1)</sup>, Ruka Setoguchi<sup>1)</sup>  
<sup>1)</sup>Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo, <sup>2)</sup>Research Institute for Biomedical Science, Tokyo University of Science, <sup>3)</sup>Research Center for Integrative Medical Science (IMS), RIKEN Yokohama Institute

WS07-06-O/P

### A novel mechanism for LAG-3-mediated cell-extrinsic suppression of CD4<sup>+</sup> T cell activation through trogocytosis of MHC class II

○ Ei Wakamatsu, Hiroaki Machiyama, Hiroko Toyota, Masae Furuhashi, Hitoshi Nishijima, Arata Takeuchi, Tadashi Yokosuka  
Tokyo Medical Univ.

WS07-07-O/P

### Mbd3 facilitates thymic regulatory T precursor cell development and Treg lineage commitment by altering the Treg-specific CD25 enhancer landscape

○ Jia Long<sup>1,2)</sup>, Kenji Ichiyama<sup>1,2)</sup>, Shimon Sakaguchi<sup>1,2,3)</sup>  
<sup>1)</sup>Immunology Frontier Research Center, <sup>2)</sup>Osaka Univ., <sup>3)</sup>Kyoto Univ.

## January 18

### WS08 Tumor immunity-1; Effector cell therapy

14:05 ~ 15:20 Room A

Chairpersons: Hiroaki Ikeda, Naoko Ohtani

The spectacular results of CAR-T cell therapy for blood cancers have surprised us, but on the other hand, CAR-T has not been shown to be effective against solid tumors. Why is CAR-T ineffective against solid tumors? What should I do to make it work? Many of the topics in this WS are related to CAR-T, and we would like to discuss all the strategies to overcome solid cancers. We also discuss not only TCR-T, which has been shown to be effective against some solid tumors in the past, but also how to generate CD8-positive killer T cells (CTL) with high antitumor activity. Of course, NK cells and NKT cells must not be forgotten as important effector cell therapy tools. Let's all discuss what we can do to defeat solid cancers using effector cell therapy.

WS08-01-O/P

### Elucidating Tissue-Specific Metabolisms in Chimeric Antigen Receptor T-Cell Therapy

○ Ari Itoh-Nakadai<sup>1,2)</sup>, Mariko Murasawa-Tomizawa<sup>1)</sup>, Masashi Matsuda<sup>3)</sup>, Haruhiko Koseki<sup>3)</sup>, Fumihiko Ishikawa<sup>1)</sup>  
<sup>1)</sup>Laboratory for Human Disease Models, IMS, Riken, Yokohama, Japan, <sup>2)</sup>Hygiene & public Health, Nippon Medical School, Tokyo, Japan, <sup>3)</sup>Developmental Genetics, IMS,RIKEN, Yokohama, Japan

WS08-02-O/P

### Trogocytosis controlled CAR-T cells show enhanced anti-tumor activity

○ Atsutaka Minagawa, Shin Kaneko  
Kyoto University iPS Cell Research and Application

WS08-03-O/P

**Genetically engineered induced pluripotent stem cell-derived T cells with drastically improved anti-tumor efficacy against solid tumor**

○ Akihiro Ishikawa, Masazumi Waseda, Tomoko Ishii, Yohei Kawai, Shin Kaneko  
Kaneko-Lab, Center for iPS Cell Research and Application, Kyoto University

WS08-05-O/P

**Dissecting the roles of STAT3 and STAT5 in antitumor T cells**

○ Haosong Zhang<sup>1,2,3</sup>, Zhiwen Wu<sup>2</sup>, Yuki Kagoya<sup>1,2</sup>

<sup>1</sup>Division of Tumor Immunology, Institute for Advanced Medical Research, Keio University School of Medicine, <sup>2</sup>Division of Immune Response, Aichi Cancer Center Research Institute, <sup>3</sup>Department of Cancer Diagnostics and Therapeutics, Nagoya University Graduate School of Medicine

WS08-06-O/P

**Efficient activity of CAR T cell targeting pMHC depends on binding affinity**

○ Hiratsuka Hiroyuki<sup>1</sup>, Yasushi Akahori<sup>1</sup>, Shingo Maeta<sup>2</sup>, Daisuke Ejima<sup>2</sup>, Yuriko Egashira<sup>2</sup>, Atsushi Fukunaga<sup>2</sup>, Hiroshi Shiku<sup>1,3</sup>

<sup>1</sup>Department of Personalized Cancer Immunotherapy, Mie University graduate School of medicine, <sup>2</sup>Bio-Diagnostic Reagent Technology Center, Sysmex Corporation, <sup>3</sup>deceased 4 September 2022

WS08-07-O/P

**Development of HLA-A2 restricted GPC3 TCR-T cells for cancer immunotherapy**

○ Manami Shimomura<sup>1</sup>, Kayoko Shoda<sup>1</sup>, Toshiaki Yoshikawa<sup>1</sup>, Toshihiro Suzuki<sup>1</sup>, Kazunobu Ohnuki<sup>1</sup>, Kaho Takeichi<sup>2</sup>, Sachiko Okamoto<sup>2</sup>, Tetsuya Nakatsura<sup>1</sup>

<sup>1</sup>National Cancer Center, EPOC, Cancer immunology, <sup>2</sup>Takara Bio. Inc.

WS08-09-O/P

**Evaluation of tumor infiltrating lymphocytes (TILs)-derived MR1 restricted TCRs of breast cancer patients**

○ Abdul Hayee<sup>1</sup>, Eiji Kobayashi<sup>1</sup>, Hiroshi Hamana<sup>2</sup>, Satoshi Yamaguchi<sup>1</sup>, Ha Thi Viet My<sup>1</sup>, Tatsuhiko Ozawa<sup>1</sup>, Hiroyuki Kishi<sup>1</sup>

<sup>1</sup>Department of Immunology, Faculty of Medicine, Academic Assembly, University of Toyama, <sup>2</sup>Thyas Co., Ltd., Kyoto, Japan

**WS09 Infection immunity 2**

14:05 ~ 15:20 Room B

Chairpersons: Saya Moriyama, Hideo Negishi

Respiratory virus infection and HIV infection are huge global health issues. To protect against viral infection, understanding the interaction of virus-host immune responses and developing therapeutics and preventatives are essential. This session will focus on respiratory virus infections such as SARS-CoV-2 and influenza virus, HIV, and therapeutics/vaccines.

WS09-01-O/P

**A bivalent SARS-CoV-2 mRNA vaccine encoding the SARS-CoV-2 receptor-binding domain broadly protects mice against infection with various SARS-CoV-2 omicron variants**

○ Ryuta Uraki<sup>1,2</sup>, Masaki Imai<sup>1,2</sup>, Mutsumi Ito<sup>2</sup>, Seiya Yamayoshi<sup>1,2</sup>, Maki Kiso<sup>2</sup>, Nao Jounai<sup>3</sup>, Kazuki Miyaji<sup>3</sup>, Kiyoko Iwatsuki-Horimoto<sup>2</sup>, Fumihiko Takeshita<sup>3</sup>, Yoshihiro Kawaoka<sup>1,2,4</sup>

<sup>1</sup>National Center for Global Health and Medicine, <sup>2</sup>The University of Tokyo, <sup>3</sup>Daiichi Sankyo Co., Ltd., <sup>4</sup>University of Wisconsin-Madison

WS09-03-O/P

**Understanding of SARS-CoV-2 pathogenicity in COVID-19 cynomolgus macaque model and consideration of its reinfection; contribute to the vaccine development**

○ Emiko Urano, Tomotaka Okamura, Yasuhiro Yasutomi

National Institutes of Biomedical Innovation, Health and Nutrition

WS09-06-O/P

**Interclonal B-cell competition for SARS-CoV-2 spike receptor-binding site limits cross-neutralizing memory B cell reactivation**

○ Yu Adachi, Ryutarō Kotaki, Saya Moriyama, Keisuke Tonouchi, Taishi Onodera, Kazutaka Terahara, Tomohiro Takano, Ayae Nishiyama, Takayuki Matsumura, Masanori Isogawa, Yoshimasa Takahashi

Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Japan

WS09-08-O/P

**Comprehensive analysis of nasal IgA antibodies induced by intranasal administration of the SARS-CoV-2 spike protein**

○ Nobuyuki Kurosawa<sup>1</sup>, Hideki Tan<sup>2</sup>, Seiichi Koike<sup>1</sup>, Masaharu Isobe<sup>1</sup>

<sup>1</sup>University of Toyama, <sup>2</sup>Toyama Institute of Health

WS09-09-O/P

**Molecular basis of SARS-CoV-2 spike escape from HLA-A\*24:02-restricted T cell receptor**○ Chihiro Motozono<sup>1)</sup>, Aaron Wall<sup>2)</sup>, Mako Toyoda<sup>1)</sup>, Hiroshi Hamana<sup>2)</sup>, Keiko Udaka<sup>3,4)</sup>, Pierre J Rizkallah<sup>2)</sup>, Hiroyuki Kishi<sup>2)</sup>, Andrew K Sewell<sup>2)</sup>, Takamasa Ueno<sup>1)</sup><sup>1)</sup>Kumamoto University, Joint research center for Human Retrovirus infection, Division of Infection and Immunity, <sup>2)</sup>Cardiff University, School of Medicine, Division of Infection and Immunity, <sup>3)</sup>Toyama University, Academic Assembly, Faculty of Medicine, Department of Immunology, <sup>4)</sup>Kochi University, Department of Immunology

WS09-14-O/P

**ARNAX is a desirable adjuvant for a prophylactic vaccine against COVID-19 to enhance antigen-specific CD4<sup>+</sup> and CD8<sup>+</sup> T cell responses and neutralizing antibody induction**○ Tomomi Kawakita<sup>1,2)</sup>, Toshiki Sekiya<sup>2,3,4)</sup>, Yayoi Kameda<sup>5)</sup>, Naoki Nomura<sup>3,6)</sup>, Marumi Ohno<sup>2,3)</sup>, Chimuka Handabile<sup>2,3)</sup>, Masashi Shingai<sup>1,2,3,4)</sup>, Yasuhiko Suzuki<sup>2,5)</sup>, Hiroshi Kida<sup>1,2,3,4)</sup>, Misako Matsumoto<sup>1,7,8)</sup>, Tsukasa Seya<sup>1,7,8)</sup><sup>1)</sup>Division of Vaccine Immunology, International Institute for Zoonosis Control, Hokkaido University, <sup>2)</sup>Institute for Vaccine Research and Development (HU-IVReD), Hokkaido University, <sup>3)</sup>Division of Biologics Development, International Institute for Zoonosis Control, Hokkaido University, <sup>4)</sup>International Collaboration Unit, International Institute for Zoonosis Control, Hokkaido University, <sup>5)</sup>Division of Bioresources, International Institute for Zoonosis Control, Hokkaido University, <sup>6)</sup>Division of International Research Promotion, International Institute for Zoonosis Control, Hokkaido University, <sup>7)</sup>Department of Vaccine Immunology, Graduate School of Medicine, Hokkaido University, <sup>8)</sup>Nebuta Research Institute for Life Sciences, Aomori University

WS09-22-O/P

**High levels of Gas6 induced by cellular senescence in aged mice cause severe infections**○ Yukie Kure, Takehiko Shibata  
Tokyo Medical University

WS09-23-O/P

**Modulation of lipid metabolism by regulating SCD2 activation induced augmentation of anti-viral response**○ Toshio Kanno, Yusuke Endo, Keisuke Miyako  
Kazusa DNA Research Institute, Laboratory of Medical Omics Research**WS10 Effector differentiation and function of T cells**

14:05 ~ 15:20 Room C

Chairpersons: Tadashi Yokosuka, Eri Ishikawa

T cell activation is triggered by TCR-MHC-peptide binding, and small structural changes in the TCR/CD3 complex are transmitted to the cytoplasm as specific signal transductions. The first kinase Lck phosphorylates TCR/CD3 complexes, followed by activation and assembly of downstream enzymes and adapter proteins. In this cascade, TCR signaling crosstalks with those by various costimulatory and coinhibitory receptors, and further overlaps with glucose, amino acid, and lipid metabolism pathways, modifying the output more complex and diverse. Innate T cells are known to recycle certain receptors used in innate immunity. These receptors coordinate T-helper differentiation, and some of them function after effector differentiation. Through 8 lectures (6-minute talks and 2-minute discussions) and 19 posters, we look forward to active participation and discussion.

WS10-02-O/P

**CD4/CD8 coreceptor binding to MHCs positively regulate CAR-T cell response via translocation of Lck into CAR microclusters**○ Hiroaki Machiyama<sup>1)</sup>, Ei Wakamatsu<sup>1)</sup>, Arata Takeuchi<sup>1)</sup>, Hitoshi Nishijima<sup>1)</sup>, Maksim Mamonkin<sup>2)</sup>, Malcolm K Brenner<sup>2)</sup>, Tadashi Yokosuka<sup>1)</sup><sup>1)</sup>Department of Immunol, Tokyo Medical University, <sup>2)</sup>Center for Cell and Gene Therapy, Baylor College of Medicine

WS10-08-O/P

**Rap1-GAPs Rasa3 and Sipa1 are required for pulmonary transit and egress from the lymph nodes in T cells**○ Shunsuke Horitani, Yoshihiro Ueda, Yuji Kamioka, Naoyuki Kondo, Makoto Naganuma, Tatsuo Kinashi  
Kansai Medical Univ.

WS10-09-O/P

**miRNA-200c-3p controls alpha4beta7 integrin-mediated T-cell adhesion and migration**○ Khwanchanok Mokmued, Gideon Obeng, Eri Matsuo, Arong Gaowa, Motomu Shimaoka, Eun Jeong Park  
Mie University Graduate School of Medicine

WS10-13-O/P

### **CD47 promotes peripheral T cell survival by preventing dendritic cell-mediated T cell necroptosis**

○ Satomi Komori<sup>1)</sup>, Yasuyuki Saito<sup>2)</sup>, Tania Afroj<sup>2)</sup>, Tomoko Takai<sup>1)</sup>, Okechi S Oduori<sup>1)</sup>, Takenori Kotani<sup>2)</sup>, Yoji Murata<sup>2)</sup>, Takashi Matozaki<sup>1)</sup>

<sup>1)</sup>Division of Biosignal Regulation, Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine, <sup>2)</sup>Division of Molecular and Cellular Signaling, Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine

WS10-14-O/P

### **Epitranscriptomic shaping of signal transduction controls the development, activation and survival of T cells**

○ Taku Kureha, Vigo Heissmeyer

Ludwig-Maximilians-Universität in Munich

WS10-16-O/P

### **Stress-induced glucocorticoids exacerbate inflammatory diseases by promoting Th17 cell differentiation**

○ Akihiro Shimba<sup>1)</sup>, Koichi Ikuta<sup>2)</sup>

<sup>1)</sup>Department of Human Health Sciences, Graduate School of Medicine, Kyoto University, <sup>2)</sup>Laboratory of Immune Regulation, Department of Virus Research, Institute for Life and Medical Sciences, Kyoto University

WS10-26-O/P

### **Sulfated bile acid is a self-antigen for MAIT cells required for their development and maintenance**

○ Emi Ito<sup>1,2)</sup>, Ami Takeyama<sup>1,2)</sup>, Eri Ishikawa<sup>1,2)</sup>, Sho Yamasaki<sup>1,2)</sup>

<sup>1)</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Japan, <sup>2)</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center, Osaka University, Suita, Japan

WS10-27-O/P

### **An unconventional death: Impact of necroptotic cell death machinery on mucosal-associated invariant T cell abundance**

○ Timothy Patton<sup>1)</sup>, Zhe Zhao<sup>1)</sup>, Nazli Somuncuoglu<sup>1)</sup>, Eleanor Eddy<sup>1)</sup>, Huimeng Wang<sup>1)</sup>, Jeremy Le<sup>1)</sup>, Sidonia B G Eckle<sup>1)</sup>, Michael N T Souter<sup>1)</sup>, James McCluskey<sup>1)</sup>, Zhenjun Chen<sup>1)</sup>, Kate E Lawlor<sup>2,3,4,5)</sup>, Alexandra J Corbett<sup>1)</sup>

<sup>1)</sup>Department of Immunology and Microbiology, University of Melbourne at the Peter Doherty Institute for Infection and Immunity, Melbourne, Australia, <sup>2)</sup>Centre for Innate Immunity and Infectious Diseases, Hudson Institute of Medical Research, Department of Molecular and Translational Science, Monash University, Clayton, Australia, <sup>3)</sup>Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, <sup>4)</sup>Department of Medical Biology, University of Melbourne, Parkville, Australia, <sup>5)</sup>Department of Molecular and Translational Science, Monash University, Clayton, Australia

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## **WS11 Cellular basis for the development of pathogenic or tissue-resident macrophages**

14:05 ~ 15:20 Room D

Chairpersons: Satoshi Ishido, Kanako Shimizu

Macrophages are key cellular components for maintenance of immune system. Dysregulated development of macrophages poses a threat to us through the onset of degenerative diseases (e.g. autoimmune diseases, osteoporosis). In this session, we would discuss about what of aberrant development is related to the disease, what is cellular basis behind the disease onset. Furthermore, how are tissue-resident macrophages maintained in immune system will be discussed. The presentation and discussion could fill the gaps in "Macrophage biology".

WS11-01-O/P

### **Identification of osteal macrophages subset with pathological function in bone as a potential target for treatment of postmenopausal osteoporosis**

○ Alaa Terukawa, Yoshio Nishida, Norimasa Iwasaki

Department of Orthopedic Surgery, School of Medicine, Hokkaido University

WS11-02-O/P

### **PCBP1 acts as a regulator of CCL2 expression in macrophages to induce recruitment of monocyte-derived macrophages into the inflamed colon**

○ Nobuyuki Onai<sup>1)</sup>, Xinquan Yang<sup>1)</sup>, Toshiki Yabe-Wada<sup>1)</sup>, Jia Han<sup>2)</sup>, Fumiji Saito<sup>1)</sup>, Chie Ogasawara<sup>1)</sup>, Sohsuke Yamada<sup>2)</sup>

<sup>1)</sup>Department of Immunology, Kanazawa Medical University, <sup>2)</sup>Department of Pathology and Laboratory Medicine, Kanazawa Medical University

WS11-03-O/P

### **Polarization of M2 macrophages and development of renal fibrosis are caused by transglutaminase, a protein cross-linking enzyme**

○ Hideki Tatsukawa, Yoshiki Shinoda, Kiyotaka Hitomi

Cellular Biochemistry Lab., Graduate School of Pharmaceutical Sciences, Nagoya University



WS11-05-O/P

**EGR2 plays a pivotal role in the differentiation of Ly6C<sup>hi</sup> monocytes into fibrosis-promoting macrophages in non-alcoholic steatohepatitis**

○ Ayaka Iwata, Natsuki Shibata, Kenichi Asano, Masato Tanaka  
Laboratory of Immune Regulation, School of Life Sciences, Tokyo University of Pharmacy and Life Sciences

WS11-10-O/P

**RANKL-expressing cells in the primary ossification center functions as an osteoclast niche during early bone marrow development**

○ Eriko Sumiya<sup>1,2</sup>, Shinichiro Sawa<sup>2</sup>  
<sup>1</sup>University of Tokyo, <sup>2</sup>Kyushu University

WS11-11-O/P

**Identification of CSF1-producing cells required for the maintenance of intestinal macrophages**

○ Daichi Nonaka<sup>1</sup>, Soichiro Yoshida<sup>1</sup>, Eriko Sumiya<sup>2</sup>, Shinichiro Sawa<sup>1</sup>  
<sup>1</sup>Division of Mucosal Immunology, Research Center for Systems Immunology, Medical Institute of Bioregulation, Kyushu University, <sup>2</sup>Department of Orthopedic Surgery, Faculty of Medicine, The University of Tokyo, Tokyo, Japan

WS11-14-O/P

**Characterization of bone marrow-derived macrophages induced in a CSFRs-independent but TREM2-dependent manner**

○ Shin-ei Matsumoto, Hiromitsu Hara  
Department of Immunology, Kagoshima University Graduate School of Medical and Dental Sciences

WS11-17-O/P

**Development of a novel VeDTR mice for labelling and removal of alveolar macrophages**

○ Yuki Nakayama, Masahiro Yamamoto  
Department of Infectious Diseases, Research Institute for Microbial Diseases, Osaka University, Japan

**WS12 Autoimmunity in arthritis and fibrosis**

14:05 ~ 15:20 Room E

Chairpersons: Shinsuke Yasuda, Akemi Sakamoto

In the research field of systemic autoimmune diseases including rheumatoid arthritis, interaction between immune cells and resident non-immune cells increasingly draw attention of researchers as well as physicians. Behavior of fibroblasts in rheumatoid arthritis as well as pulmonary fibrosis has also now recognized to be affected by immune cells and cytokines/growth factors in the microenvironment. In the current workshop, outstanding researchers will discuss from small molecules like transcription factors and MHC to T cell subsets, myeloid cells, and fibroblasts that participate in antigen presentation, arthritis and fibrosis.

WS12-01-O/P

**Function of ectopic MHC class II expression on non-immune cells in immune response**

○ Wataru Nakai<sup>1,2</sup>, Yuta Shimizu<sup>1,2</sup>, Masako Kohyama<sup>1,3</sup>, Hisashi Arase<sup>1,2,3</sup>  
<sup>1</sup>Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University, <sup>2</sup>Laboratory of Immunochemistry, WPI Immunology Frontier Research Center, Osaka University, <sup>3</sup>Regulation of Host Defense Team, Center for Infectious Disease Education and Research, Osaka University

WS12-05-O/P

**Synovial regulatory T cells expressing ST2 deteriorate joint inflammation**

○ Koto Hattori<sup>1</sup>, Shigeru Tanaka<sup>1</sup>, Jun Tamura<sup>1</sup>, Keishi Etori<sup>1</sup>, Steven F. Ziegler<sup>2</sup>, Hiroshi Nakajima<sup>1</sup>  
<sup>1</sup>Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, <sup>2</sup>Immunology Program, Benaroya Research Institute

WS12-07-O/P

**Parsing synovial pathology related to treatment resistance in Japanese rheumatoid arthritis patients by single-cell analysis**

○ Risa Yoshihara<sup>1</sup>, Haruka Tsuchiya<sup>1</sup>, Yasunori Omata<sup>2</sup>, Kazuyoshi Ishigaki<sup>3</sup>, Takahiro Itamiya<sup>1,4</sup>, Hiroaki Harada<sup>1</sup>, Hirofumi Shoda<sup>1</sup>, Kazuhiko Yamamoto<sup>3</sup>, Sakae Tanaka<sup>2</sup>, Tomohisa Okamura<sup>4</sup>, Keishi Fujio<sup>1</sup>  
<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, <sup>2</sup>Department of Orthopaedic Surgery, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, <sup>3</sup>Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences, <sup>4</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan



WS12-08-O/P

### Dysregulated *NUB1* and Neddylation Enhances Rheumatoid Arthritis Fibroblast-Like Synovioocyte Inflammatory Responses via NF- $\kappa$ B Pathway

○ Sho Sendo<sup>1,2</sup>, Camilla R.L. Machado<sup>1</sup>, David L Boyle<sup>1</sup>, Gary S Firestein<sup>1</sup>

<sup>1</sup>University of California, San Diego, <sup>2</sup>Kobe University Hospital

WS12-14-O/P

### Myeloid-derived suppressor cells from the inflamed joints of arthritic SKG mice differentiate into osteoclasts and exacerbate arthritis

○ Alfonso del Peral Fanjul<sup>1</sup>, Sho Sendo<sup>1</sup>, Yoshikazu Fujikawa<sup>1</sup>, Takumi Nagamoto<sup>1</sup>, Hirotaka Yamada<sup>1</sup>, Akio Morinobu<sup>1,2</sup>, Jun Saegusa<sup>1</sup>

<sup>1</sup>Kobe University Graduate School of Medicine Department of Rheumatology and Clinical Immunology, <sup>2</sup>Department of Rheumatology and Clinical Immunology, Kyoto University Graduate School of Medicine

WS12-15-O/P

### Differential TCR affinities for self antigens between Treg and arthritogenic Th17 cells shape the functional imbalance that cause autoimmune arthritis

○ Yusuke Takeuchi<sup>1,2</sup>, Daiya Ohara<sup>1</sup>, Hitomi Watanabe<sup>1</sup>, Gen Kondoh<sup>1</sup>, Akio Morinobu<sup>2</sup>, Keiji Hirota<sup>1</sup>

<sup>1</sup>Laboratory of Integrative Biological Science, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Department of Rheumatology and Clinical Immunology, Graduate School of Medicine, Kyoto University

WS12-17-O/P

### Identification of ETS1 as the common activator for polarization of tissue-remodeling fibroblasts

○ Noriko Komatsu<sup>1</sup>, Minglu Yan<sup>1</sup>, Masayuki Tsukasaki<sup>2</sup>, Hiroshi Takayanagi<sup>1</sup>

<sup>1</sup>Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, <sup>2</sup>Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan

WS12-20-O/P

### TNF $\alpha$ -induced adipose-related protein (TIARP) suppresses the pathogenesis of bleomycin-induced pulmonary fibrosis

○ Haruka Miki, Ayaka Miyamoto, Hiroto Tsuboi, Fumika Honda, Ayako Oyama, Saori Abe, Ayako Kitada, Hiromitsu Asashima, Yuya Kondo, Isao Matsumoto

Department of Rheumatology, Institute of Medicine, University of Tsukuba

## WS13 Tolerance and Immune suppression-2

14:05 ~ 15:20 Room F

Chairpersons: Naganari Ohkura, Ruka Setoguchi

Immune responses are controlled by various mechanisms of tolerance and immune suppression. These mechanisms are critical for the maintenance of homeostasis. Here in this workshop, we will discuss new molecular mechanisms of regulatory T cell development and differentiation as well as other novel mechanisms of immune suppression. Each oral presentation will consist of an 8-minute talk and a 2-minute discussion. We invite you to join us for an active discussion of all oral and poster presentations.

WS13-01-O/P

### Overexpression of BATF enhances proliferative and suppressive activities of Treg cells *in vivo*

○ Kohta Matsuura, Ryuichi Murakami, Shohei Hori

Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS13-02-O/P

### Preferential Induction of Regulatory T Cells by Ubiquitinated MHC II

○ Yuko Kozono, Baicheng Fan, Satoshi Ueha, Haruo Kozono

Research Institute for BioMedical Sciences, Tokyo University of Sciences

WS13-03-O/P

### Oral tolerance inhibits DTH in the sensitization phase by Treg-mediated suppression of DC functions in skin dLNs

○ Arisa Akagi<sup>1</sup>, Rintaro Shibuya<sup>2</sup>, Sho Hanakawa<sup>3</sup>, Akihiko Kitoh<sup>1</sup>, Kenji Kabashima<sup>1,3</sup>

<sup>1</sup>Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>2</sup>Kimberly and Eric J. Waldman Department of Dermatology, Icahn School of Medicine at Mount Sinai, New York City, NY, United States, <sup>3</sup>Skin Research Labs, Agency for Science, Technology and Research (A\*STAR), Singapore

WS13-04-O/P

### Temporal and spatial dynamics of immune cells in mouse liver transplantation revealed by mass cytometry and Single-cell RNA sequencing

○ Xin Hu<sup>1</sup>, Weitao Que<sup>2,3</sup>, Yifang Shui<sup>2</sup>, Masayuki Fujino<sup>1</sup>, Xiao-Kang Li<sup>1</sup>

<sup>1</sup>National Research Institute for Child Health and Development, <sup>2</sup>The First Affiliated Hospital of Zhengzhou University, <sup>3</sup>Shanghai General Hospital, Shanghai Jiao Tong University School of Medicine

WS13-05-O/P

### VISTA regulates monocyte adhesion via TGF-beta; a targetable mechanism for hyper-adhesive monocytes in psoriasis?

○ Kentaro Ohko<sup>1</sup>, Kozo Nakai<sup>1</sup>, Thomas McCormick<sup>2</sup>, Kevin Cooper<sup>2,3</sup>

<sup>1</sup>Department of Dermatology, Kochi Medical School, <sup>2</sup>Department of Dermatology, Case Western Reserve University, <sup>3</sup>University Hospitals Cleveland Medical Center

WS13-06-O/P

### Foxp3<sup>A384T</sup> mutation represses *Myc* transcription without globally affecting chromatin accessibility in effector Treg cells

○ Suzu Kawagoe, Ryuichi Murakami, Shohei Hori

Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

## WS14 Allergy-2

14:05 ~ 15:20 Room G

Chairpersons: Tomoaki Ando, Chiharu Nishiyama

Allergy is an undesired condition where the exposure to essentially non-hazardous substances causes excess immune responses in the sensitized individuals. Immune systems of the body surfaces have intrinsic suppression mechanisms to avoid potentially harmful inflammation, in addition to the systemic alert mechanism to fight against the pathogens. The mechanisms may be cell-intrinsic or involve interactions between innate and acquired immunity. Dysregulations of these mechanisms lead to the development of allergic disorders. In this session, we have chosen topics on how cellular and molecular mechanisms regulate immune systems before, during, and at the end of the allergic inflammation. These insights will allow us to discuss new means to take control of the immune responses and to further prevent and treat the allergic disorders.

WS14-01-O/P

### Functional role of Signal-transducing adaptor protein-1 for regulation of FcεRI-mediated mast cell activation

○ Jun-ichi Kashiwakura<sup>1</sup>, Sumihito Togi<sup>2</sup>, Kenji Oritani<sup>3</sup>, Tadashi Matsuda<sup>4</sup>

<sup>1</sup>Department of Life Science, Faculty of Pharmaceutical Sciences, Hokkaido University of Science, <sup>2</sup>Division of Genomic Medicine, Department of Advanced Medicines, Medical Research Institute, Kanazawa Medical University, <sup>3</sup>Department of Hematology, International University of Health and Welfare, <sup>4</sup>Department of Immunology, Graduate School of Pharmaceutical Sciences, Hokkaido University

WS14-03-O/P

### Annexin A5 inhibits IgE-mediated mast cells activation via Allergin-1 inhibitory immunoreceptor

○ Mariana Silva Almeida<sup>1,3</sup>, Satoko Tahara-Hanaoka<sup>1,2</sup>, Shiro Shibayama<sup>4</sup>, Akira Shibuya<sup>1,2</sup>

<sup>1</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, <sup>2</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, <sup>3</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba, <sup>4</sup>Research Center of Immunology, Tsukuba Institute, ONO Pharmaceutical Company, Ltd.

WS14-05-O/P

### The C-type lectin receptor Clec12b suppresses mast cell activation in the skin and regulates house dust mite-induced dermatitis

○ Ayana Iijima<sup>1,2</sup>, Kenshiro Matsuda<sup>2,3</sup>, Kazuko Shibuya<sup>2,4</sup>, Akira Shibuya<sup>2,4</sup>

<sup>1</sup>Ph. D. Program in Human Biology, University of Tsukuba, <sup>2</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, <sup>3</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba, <sup>4</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS14-08-O/P

### Classical monocyte-derived macrophages display high efferocytic ability and contribute to the resolution of basophil-dependent skin allergic inflammation

○ Kensuke Miyake<sup>1</sup>, Junya Ito<sup>1</sup>, Kazufusa Takahashi<sup>1</sup>, Jun Nakabayashi<sup>2</sup>, Shigeyuki Shichino<sup>3</sup>, Hajime Karasuyama<sup>1</sup>

<sup>1</sup>Inflammation, Infection and Immunity Laboratory, Advanced Research Institute, Tokyo Medical and Dental University (TMDU), <sup>2</sup>College of Liberal Arts and Sciences, Tokyo Medical and Dental University (TMDU), <sup>3</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute of Biomedical Sciences, Tokyo University of Science

WS14-09-O/P

**The role of IL-13 on dendritic cells is critical for type 2 immune responses**○ Yasuyo Harada<sup>1)</sup>, Takanori Sasaki<sup>4)</sup>, Takeshi Watanabe, Satoshi Ueha<sup>3)</sup>, Shuhei Ogawa<sup>5)</sup>, Masato Kubo<sup>1,2)</sup><sup>1)</sup>Tokyo University of Science, Research Institute for Biological Science, Division of Molecular Pathology, <sup>2)</sup>RIKEN Center for Integrative Medical Sciences, Laboratory for Cytokine Regulation, <sup>3)</sup>Tokyo University of Science, Research Institute for Biological Science, Division of Molecular Regulation of Inflammatory and Immune Diseases, <sup>4)</sup>Keio University School of Medicine, Department of Internal Medicine, Division of Rheumatology, <sup>5)</sup>Tokyo University of Science, Research Institute for Biological Science, Division of Experimental Animal Immunology

WS14-11-O/P

**An aluminum-containing food additive causes cleavage of IL-18, IL-33 and gasdermin D in intestinal epithelial cells under antibiotic treatment**○ Ayako Wakabayashi<sup>1)</sup>, Atsuko Owaki<sup>1)</sup>, Ken Iwatsuki<sup>2)</sup>, Etsuko Toda<sup>3)</sup>, Yasuhiro Nishiyama<sup>4)</sup>, Shoji Matsune<sup>5)</sup>, Rimpei Morita<sup>1)</sup><sup>1)</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2)</sup>Department of Nutritional Science and Food Safety, Faculty of Applied Bioscience, Tokyo University of Agriculture, <sup>3)</sup>Department of Analytic Human Pathology, Nippon Medical School, <sup>4)</sup>Department of Neurological Science, Nippon Medical School, <sup>5)</sup>Department of Otolaryngology, Nippon Medical School Musashi Kosugi Hospital

WS14-12-O/P

**Impaired suppressive function of Tregs promotes continuous bone loss in food-allergic enteropathy model mice**○ Kohei Soga<sup>1,2)</sup>, Tomohiro Hoshino<sup>3)</sup>, Kosuke Nishitsuji<sup>1,2)</sup>, Michio Tomura<sup>4)</sup>, Shigeru Kakuta<sup>5,6)</sup>, Satoshi Hachimura<sup>1,2)</sup>, Haruyo Nakajima-Adachi<sup>1,2,7)</sup><sup>1)</sup>Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, <sup>2)</sup>Research Center for Food Safety, Graduate School of Agricultural and Life Sciences, The University of Tokyo, <sup>3)</sup>Division of Biochemistry, Faculty of Pharmacy and Graduate School of Pharmaceutical Science, Keio University, <sup>4)</sup>Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, <sup>5)</sup>Laboratory of Biomedical Science, Graduate School of Agricultural and Life Sciences, The University of Tokyo, <sup>6)</sup>Collaborative Research Institute for Innovative Microbiology (CRIIM), The University of Tokyo, <sup>7)</sup>Department of Immunobiology and Biofunctional Research, Graduate School of Agricultural and Life Sciences, The University of Tokyo

WS14-16-O/P

**The USP7-STAT3-granzyme-Par-1 axis regulates allergic inflammation by promoting differentiation of IL-5-producing Th2 cells**

○ Masahiro Kiuchi, Kota Kokubo, Hiroyuki Yagyu, Masahiro Nemoto, Kaori Tsuji, Takahisa Hishiya, Miki Onoue, Rie Shinmi, Yuri Sonobe, Toshinori Nakayama, Kiyoshi Hirahara

Graduate School of Medicine and School of Medicine, Chiba University, Immunology

**WS15 Tumor immunity-2; Various immunotherapy**

15:30 ~ 16:45 Room A

Chairpersons: Keiko Udaka, Tetsuya Nakatsura

We will discuss about various strategies to combat tumors. Immune arsenals include T cells, NK, NKT cells and antibodies. Investigation into tumor cell biology and tumor microenvironment has helped develop various modality of immunotherapies. An expanded panel is exploited such as mRNAs, peptides, proteins to whole cells. Delivery of immunogens is also critical. Nanogel technique, jet injection will be presented. Recombinant virus and intracellular pathogens carrying tumor antigens are presented. Deliberate destruction of tumor cells induced epitope spreading. Antibody-mediated therapies target immune checkpoint molecules and inhibitory co-receptor and cytokine. A sophisticated recombinant antibody technique allowed development of di- or tri-specific antibodies. Novel technique and pathogenesis of irAE are also in the scope. New ideas and critics are welcome.

WS15-01-O/P

**Development of peptide immunotherapy targeting CAF**○ Keiko Udaka<sup>1)</sup>, Toshihiro Komatsu<sup>1)</sup>, Yuki Tanaka<sup>2)</sup>, Kousuke Onoue<sup>2)</sup>, Yoshiko Yamashita<sup>2)</sup>, Kazuhide Onoguchi<sup>2)</sup>, Ryo Tanaka<sup>3)</sup>, Yoichiro Iwase<sup>3)</sup>, Naoki Sakaguchi<sup>3)</sup><sup>1)</sup>Department of Immunology, School of Medicine, Kochi University, <sup>2)</sup>AI Drug Development Division, NEC Corporation, <sup>3)</sup>Pharmaceutical Solutions Division, R&D, TERUMO Corporation

WS15-02-O/P

**A novel cancer vaccine based on hyaluronic acid nanogel drives a potent antitumor immunity against metastatic- and ICI resistant-tumors with long lasting memory CD8<sup>+</sup> T cells**○ Fumiyasu Momose<sup>1)</sup>, Takashi Nakai<sup>2)</sup>, Kohei Yabuuchi<sup>2)</sup>, Makiko Yamane<sup>1)</sup>, Tae Hayashi<sup>1)</sup>, Linan Wang<sup>1)</sup>, Yoshiyuki Nakagawa<sup>2)</sup>, Shogo Aso<sup>2)</sup>, Toru Katsumata<sup>2)</sup>, Tsuyoshi Shimoboji<sup>2)</sup>, Yoshihiro Miyahara<sup>1)</sup><sup>1)</sup>Department of Personalized Cancer Immunotherapy, Mie University Graduate School of Medicine, <sup>2)</sup>New Product Development Office, Functional Additives Division, Asahi Kasei Corporation

WS15-03-O/P

### Epitope spreading elicited by a multivalent cellular vaccine against prostate cancer, aAVC-PROS

○ Satoru Yamasaki<sup>1</sup>, Kanako Shimizu<sup>1,2</sup>, Shin-ichiro Fujii<sup>1,2</sup>

<sup>1</sup>Lab for Immunotherapy, RIKEN IMS, <sup>2</sup>RIKEN Program for Drug Discovery and Medical Technology Platforms (DMP)

WS15-04-O/P

### CD69 regulates tumor-specific CD8 T cell differentiation in tumor-draining lymph nodes

○ Ryo Nasu, Wang Yangsong, Yukihiro Endo, Ichita Hasegawa, Yukiyo Mita, Shinichiro Motohashi, Toshinori Nakayama, Motoko Y Kimura

Graduate School of Medicine, Chiba University

WS15-05-O/P

### Which subset of dendritic cells is critical to the effect of HSV-1 oncolytic virus therapy?

○ Shumpei Uchida<sup>1</sup>, Tsukasa Seya<sup>2</sup>, Shizuo Akira<sup>3</sup>, Katsuaki Sato<sup>4</sup>, Tsuneyasu Kaisho<sup>5</sup>, Ryutarō Fukui<sup>6</sup>, Kensuke Miyake<sup>6</sup>, Tomoki Todo<sup>7</sup>, Norimitsu Kadowaki<sup>1</sup>

<sup>1</sup>Division of Hematology, Rheumatology and Respiratory Medicine, Faculty of Medicine, Kagawa University, <sup>2</sup>Nebraska Research Institute for Life Sciences, Aomori University, Aomori, Japan, <sup>3</sup>Immunology Frontier Research Center, Osaka University, Osaka, Japan, <sup>4</sup>Division of Immunology, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan, <sup>5</sup>Department of Physiological Regulation Mechanisms, Wakayama Medical University, Wakayama, Japan, <sup>6</sup>Division of Infectious Genetics, Institute of Medical Science, the University of Tokyo, Tokyo, Japan, <sup>7</sup>Division of Innovative Cancer Therapy, Institute of Medical Science, the University of Tokyo, Tokyo, Japan

WS15-06-O/P

### A DLL3-targeting trispecific T cell engager with CD3/CD137 dual specific Fabs shows potent antitumor activity in small cell lung cancer models

○ Ryutarō Iwabuchi<sup>1</sup>, Hirofumi Mikami<sup>1</sup>, Shu Feng<sup>2</sup>, Sotaro Naoi<sup>2</sup>, Yumiko Azuma<sup>1</sup>, Yoko Kayukawa<sup>1</sup>, Toshiaki Tsunenari<sup>1</sup>, Junko Shinozuka<sup>1</sup>, Masaki Yamazaki<sup>1</sup>, Kenji Kashima<sup>1</sup>, Mika Kamata-Sakurai<sup>1</sup>, Takehisa Kitazawa<sup>1</sup>

<sup>1</sup>Chugai Pharmaceutical Co., Ltd., <sup>2</sup>Chugai Pharmabody Research Pte. Ltd.

WS15-07-O/P

### SAIL66, CLDN6-targeting next generation T-cell redirecting antibody, demonstrates a potent antitumor efficacy

○ Naoki Kimura, Takayuki Kamikawa, Shinya Ishii, Masaru Muraoka, Kenji Taniguchi, Ryo Uchikawa, Moe Yoshimoto, Sho Akai, Mei Shimada, Mika Kamata-Sakurai, Takehisa Kitazawa, Tomoyuki Igawa

Chugai Pharmaceutical Co.,Ltd

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## WS16 Infection immunity 3

15:30 ~ 16:45 Room B

Chairpersons: Kouetsu Ogasawara, Shinobu Suzuki

This session focuses on bacterial infections. We would like to introduce and discuss new findings on sensing and signals in first-line infection protection, and research on how first-line infection defense malfunction is involved in diseases.

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WS16-01-O/P

### Circadian Dysregulation in HaCaT keratinocytes Upon *Candida albicans* Infection

○ Jayshree Low, Kanami Orihara, Susumu Kajiwara

Tokyo Institute of Technology

WS16-02-O/P

### *Tannerella forsythia* induces inflammasome activation by triggering both NLRP3 and Caspase-4

○ Chenwei Hsu, Tokuju Okano, Tosihiko Suzuki

Tokyo Medical and Dental Univ.

WS16-03-O/P

### Identification of PILRA and PILRB as novel $\beta$ -glucan receptors that bind to pathogenic fungus, *Aspergillus* spp

○ Yasunobu Miyake, Hiroki Yoshida

Saga University, Faculty of Medicine

WS16-04-O/P

### Defining the molecular mechanisms by which histone deacetylase 7 (HDAC7) orchestrates immunometabolic responses in macrophages

○ Rishika Abrol, Kaustav Das Gupta, James E.B. Curson, Syeda Farhana Afroz, Karoline Raven, Divya Ramnath, Matthew J. Sweet

Institute for Molecular Bioscience, The University of Queensland, Australia

WS16-05-O/P

***Mycobacterium leprae* deactivates a potent PAMP to achieve immune evasion**○ Shigenari Ishizuka<sup>1,2</sup>, Yuji Miyamoto<sup>3</sup>, Tomomi Kawakita<sup>3</sup>, Yumi Maeda<sup>3</sup>, Masamichi Goto<sup>4</sup>, Manabu Ato<sup>3</sup>, Masamichi Nagae<sup>1,2</sup>, Sho Yamasaki<sup>1,2,5</sup><sup>1</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases (RIMD), Osaka University, <sup>2</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center (IFReC), Osaka University, <sup>3</sup>Department of Mycobacteriology, Leprosy Research Center, National Institute of Infectious Diseases (NIID), <sup>4</sup>Department of Pathology, Kagoshima University Graduate School of Medical and Dental Sciences, <sup>5</sup>Center for Infectious Disease Education and Research (CiDER), Osaka University

WS16-06-O/P

***Pseudomonas aeruginosa* Hijacks Host Nitric Oxide Metabolic Pathway to Evade Killing by Neutrophils in the Lung**○ Yoshinari Nakatsuka, Masanori Matsumoto, Naohiro Inohara, Gabriel Núñez  
University of Michigan

WS16-07-O/P

**Secreted Phospholipase PLA2G5 Acts as a Self-Venom in Sepsis by Mediating Hemolysis**○ Michihiro Takahama<sup>1,2</sup>, Nicolas Chevrier<sup>2</sup><sup>1</sup>Graduate School of Pharmaceutical Sciences, Osaka University, <sup>2</sup>Pritzker School of Molecular Engineering, the University of Chicago

WS16-08-O/P

**Chronic kidney disease increases bacterial susceptibility in mice due to reduced bactericidal activity of Kupffer cells**○ Kazuma Mori<sup>1</sup>, Hiroyuki Nakashima<sup>1</sup>, Hiroyasu Goto<sup>2</sup>, Keiko Tanoue<sup>2</sup>, Seigo Ito<sup>3</sup>, Azusa Kato<sup>1</sup>, Masahiro Nakashima<sup>1</sup>, Bradley M Kearney<sup>1,4</sup>, Manabu Kinoshita<sup>1</sup><sup>1</sup>Department of Immunology and Microbiology, National Defense Medical College, <sup>2</sup>Department of Nephrology and Endocrinology, National Defense Medical College, <sup>3</sup>Department of Internal Medicine, Self-Defense Force Iruma Hospital, <sup>4</sup>US Army Japan Engineer and Scientist Exchange Program**WS17 T cell biology in diseases and environments**

15:30 ~ 16:45 Room C

Chairpersons: Koji Yasutomo, Kazuko Shibuya

T cells control the adaptive immune system defending against a wide variety of pathogens while retaining the ability to discriminate between self- and non-self-antigens. Recent studies using scRNA-seq have revealed that functional T cells are more heterogeneous than previously expected. Although these studies have improved our understanding of T cell biology, those have raised many new questions about the mechanism of T cell differentiation. In addition, COVID-19 pandemic has provided us with the great opportunity to assess the human T cell activation and differentiation mechanisms. Under this recent background, we here aim to discuss the molecular mechanisms of effector/memory T cell differentiation and environments supporting T cell functions by using rodent models and human samples. We hope for a constructive discussion not only in the workshop but also in the poster presentation.

WS17-01-O/P

**Dysfunction of proteasomes in T cells causes immunodeficiency**○ Erkhembayar Shinebaatar, Junko Morimoto, Hiroyuki Kondo, Koji Yasutomo  
Tokushima university

WS17-05-O/P

**Neo-self antigens are the primary target of autoreactive T cells in lupus patients**○ Shunsuke Mori<sup>1</sup>, Hisashi Arase<sup>1,2</sup><sup>1</sup>Laboratory of Immunochemistry, World Premier International Immunology Frontier Research Centre, Osaka University, <sup>2</sup>Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University

WS17-08-O/P

**Thioredoxin-interacting protein is essential for memory T cell formation via the regulation of the redox metabolism**○ Kota Kokubo<sup>1</sup>, Kiyoshi Hirahara<sup>1</sup>, Masahiro Kiuchi<sup>1</sup>, Kaori Tsuji<sup>1</sup>, Yuri Sonobe<sup>1</sup>, Rie Shinmi<sup>1</sup>, Takahisa Hishiya<sup>1</sup>, Chiaki Iwamura<sup>1</sup>, Atsushi Onodera<sup>2</sup>, Toshinori Nakayama<sup>1,3</sup><sup>1</sup>Department of Immunology, Graduate School of Medicine, Chiba University, <sup>2</sup>Institute for Advanced Academic Research, Chiba University, <sup>3</sup>Core Research for Evolutionary Science and Technology, Japan Agency for Medical Research and Development

WS17-15-O/P

**Age-associated cytotoxic CD4<sup>+</sup> T cells in patients with autoimmune diseases**

○ Hideyuki Takahashi<sup>1</sup>, Manaka Goto<sup>1</sup>, Ryochi Yoshida<sup>1</sup>, Takahiro Itamiya<sup>1,2</sup>, Masahiro Nakano<sup>3,4</sup>, Meiko Maeda<sup>5</sup>, Akatsuki Kubota<sup>5</sup>, Tatsushi Toda<sup>5</sup>, Kazuyoshi Ishigaki<sup>3</sup>, Mineto Ota<sup>1</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, <sup>3</sup>Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences, <sup>4</sup>Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences, <sup>5</sup>Department of Neurology, Graduate School of Medicine, The University of Tokyo

WS17-21-O/P

**An antigen-specific therapeutic strategy using stabilized iTreg for pemphigus**

○ Miho Mukai<sup>1</sup>, Hayato Takahashi<sup>1</sup>, Norihisa Mikami<sup>2</sup>, Shimon Sakaguchi<sup>2</sup>, Masayuki Amagai<sup>1</sup>

<sup>1</sup>Dermatology, Keio University School of Medicine, Tokyo, <sup>2</sup>Experimental Immunology, Immunology Frontier Research Center, Osaka University, Osaka

WS17-22-O/P

**VeDTR mice employing an intersectional genetic method specifically delineate Th1-type Treg cells and their roles in tumor immunity**

○ Masaaki Okamoto<sup>1</sup>, Masahiro Yamamoto<sup>1,2,3</sup>

<sup>1</sup>Department of Immunoparasitology, Research Institute for Microbial Diseases, <sup>2</sup>Laboratory of Immunoparasitology, WPI Immunology Frontier Research Center, <sup>3</sup>Department of Immunoparasitology, Center for Infectious Disease Education and Research

WS17-23-O/P

**The effects of immune response and Oxytocin on ischemic resistance**

○ Ako Matsui, Yoshihiro Harada, Mio Kawazoe, Minako Ito

Division of Allergy and Immunology, Medical Institute of Bioregulation, Kyushu University

WS17-26-O/P

**Naïve-like Follicular Tregs (nTfr) in human blood are primed for differentiation into mature Tfr and disrupted during severe infections**

○ Janyerkye Tulyeu<sup>1</sup>, Jonas Noerskov Soendergaard<sup>1</sup>, David Priest<sup>2</sup>, Yuki Togami<sup>3</sup>, Takeshi Ebihara<sup>3</sup>, Hisatake Matsumoto<sup>3</sup>, Hiroshi Ogura<sup>3</sup>, Shimon Sakaguchi<sup>4,5</sup>, James Badger Wing<sup>1,2</sup>

<sup>1</sup>Human Single Cell Immunology Team, CiDER, Osaka University, <sup>2</sup>Laboratory of Human Single Cell Immunology, IFRc, Osaka University,

<sup>3</sup>Department of Traumatology and Acute Critical Medicine, Osaka University Graduate School of Medicine, <sup>4</sup>Laboratory of Experimental Immunology IFRc, Osaka University, <sup>5</sup>Department of Experimental Pathology, Institute for Frontier Medical Sciences, Kyoto University

**WS18 Dendritic cells & Macrophages: development, function and regulation of immune response and disease**

15:30 ~ 16:45 Room D

Chairpersons: Katsuaki Sato, Noriko Sorimachi

Dendritic cells (DCs) and macrophages comprise various subsets with phenotypic and functional heterogeneity. DCs and macrophage are considered as essential antigen (Ag)-presenting cells (APCs) that play critical roles in orchestrating immune system. Furthermore, their functions can be controlled by various intrinsic elements, including transcriptional factors as well as extrinsic stimulations through pattern recognition receptors. In this session, we highlight the development and function of DCs and macrophage as well as the regulation of immune response and disease. We hope that all participants have an active discussion in this session and poster presentation. Each oral presentation should take 9 min (7 min for presentation and 2 min for discussion).

WS18-01-O/P

**Functional analysis of transcription factors PU.1 and SpiB in the determination of dendritic cell fate**

○ Naoto Ito<sup>1</sup>, Mayumi Hirakawa<sup>2</sup>, Natsuki Minamikawa<sup>1</sup>, Mayuka Katagiri<sup>1</sup>, Kazuki Nagata<sup>1</sup>, Tomokatsu Ikawa<sup>2</sup>, Chiharu Nishiyama<sup>1</sup>

<sup>1</sup>Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science, <sup>2</sup>Research Institute for Biomedical Sciences, Tokyo University of Science

WS18-02-O/P

**Direct reprogramming of fibroblasts into functional dendritic cells by defined factors**

○ Yutaro Kumagai

Department of Life Science and Biotechnology, National Institute of Advanced Industrial Science and Technology

WS18-03-O/P

**Analysis of transcriptomes of rat dendritic cell subsets and newly discovered CD103<sup>+</sup> DC-like cells**

○ Yasushi Sawanobori, Hisashi Ueta, Yusuke Kitazawa, Nobuko Tokuda

Anatomy, Dokkyo Medical University

WS18-04-O/P

### Sequential Notch2 and retinoic acid signals license IL-23 expression by EpCAM+ DCIR2+ CD103- cDC2 in gut-associated lymphoid tissues

○ Daiya Ohara<sup>1</sup>, Yusuke Takeuchi<sup>1</sup>, Hitomi Watanabe<sup>1</sup>, Yoonha Lee<sup>1</sup>, Hiroki Mukoyama<sup>1</sup>, Toshiaki Ohteki<sup>2</sup>, Gen Kondoh<sup>1</sup>, Keiji Hirota<sup>1</sup>

<sup>1</sup>Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Medical Research Institute Tokyo Medical and Dental University

WS18-05-O/P

### FBXO11 constitutes a major negative regulator of MHC class II

○ Yusuke Kasuga<sup>1</sup>, Ryota Ouda<sup>1</sup>, Masashi Watanabe<sup>2</sup>, Xin Sun<sup>1</sup>, Miki Kimura<sup>1</sup>, Shigetsugu Hatakeyama<sup>2</sup>, Koichi Kobayashi<sup>1,3</sup>

<sup>1</sup>Department of Immunology, Hokkaido University Graduate School of Medicine, <sup>2</sup>Department of Medical Chemistry, Hokkaido University Graduate School of Medicine, <sup>3</sup>Hokkaido University Institute for Vaccine Research and Development

WS18-06-O/P

### NR4A3 deficiency deteriorates psoriasis by amplifying TLR7-mediated activation of dendritic cells

○ Mayuka Katagiri<sup>1</sup>, Naoto Ito<sup>1</sup>, Natsuki Minamikawa<sup>1</sup>, Kazuki Nagata<sup>1</sup>, Akihiko Yoshimura<sup>2</sup>, Chiharu Nishiyama<sup>1</sup>

<sup>1</sup>Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science, <sup>2</sup>Department of Microbiology and Immunology, Keio University School of Medicine

WS18-07-O/P

### Kaempferol exhibits an anti-inflammatory effect through AhR-mediated upregulation of RALDH2 in dendritic cells

○ Miki Takahashi, Kazuki Nagata, Yumi Watanuki, Masaki Yamaguchi, Takuya Yashiro, Sakura Noguchi, Chiharu Nishiyama

Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science

WS18-14-O/P

### Role of CCR2-dependent MHCII<sup>high</sup> interstitial macrophages in ILC2 regulation during asthma

○ Naoto Fujioka<sup>1,2</sup>, Tetsuro Kobayashi<sup>1</sup>, Kazuyo Moro<sup>1,2,3</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, RIKEN IMS, <sup>2</sup>Laboratory for Innate Immune Systems, Department of Immunology and Microbiology, Osaka University Graduate School of Medicine, <sup>3</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center

## WS19 Mucosal-skin immunity 1

15:30 ~ 16:45 Room E

Chairpersons: Saeko Nakajima, Ryu Okumura

In the barrier organs such as gastrointestinal tract, lung, and skin, innate/adaptive immune cells, stromal and epithelial cells cooperatively interact and function as a barrier system for maintaining homeostasis of the barrier interface. Resident microbes and their metabolites interact with host barrier system and contribute to maintaining its homeostasis. Peripheral nerve emerges as an important player to regulate immune system in the barrier organs. This workshop aims to discuss recent findings on molecular and cellular machineries of the mucosal and skin immunity. Presentation will be 7 min followed by 2 min Q and A.

WS19-01-O/P

### Inducible loss of claudin-1 in keratinocytes leads to the induction of itch transmitted by multiple types of sensory nerves

○ Susumu Toshima<sup>1,2</sup>, Sonoko Takahashi<sup>1</sup>, Akiharu Kubo<sup>2,3</sup>, Masayuki Amagai<sup>2,4</sup>, Takaharu Okada<sup>1</sup>

<sup>1</sup>Laboratory for Tissue Dynamics, Center for Integrative Medical Science, RIKEN, <sup>2</sup>Department of Dermatology, Keio University School of Medicine, <sup>3</sup>Division of Dermatology, Department of Internal Related, Kobe University Graduate School of Medicine, <sup>4</sup>Laboratory for Skin Homeostasis, Center for Integrative Medical Science, RIKEN

WS19-03-O/P

### Constipation enhances gut-skin axis imbalance and worsens acne in the novel constipation-acne mouse model

○ Masakazu Tamai<sup>1</sup>, Takashi Sugihira<sup>1,2</sup>, Yuriko Yamazaki<sup>1,3</sup>, Seitaro Nakagawa<sup>1,2</sup>, Manabu Fujimoto<sup>1,4</sup>, Yumi Matsuoka-Nakamura<sup>1,2,3</sup>

<sup>1</sup>Department of Dermatology, Graduate School of Medicine, Osaka University, <sup>2</sup>Department of Cutaneous Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>3</sup>Cutaneous Allergy and Host Defense, Immunology Frontier Research Center, Osaka University, <sup>4</sup>Cutaneous Immunology, Immunology Frontier Research Center, Osaka University



WS19-05-O/P

### **Skin-resident ILC1s coordinate epithelial stress surveillance**

○ Tetsuro Kobayashi<sup>1)</sup>, Menglu Li<sup>2)</sup>, Daisuke Asanuma<sup>3)</sup>, Shigeyuki Namiki<sup>3)</sup>, Kenzo Hirose<sup>3)</sup>, Katsumasa Fujita<sup>2)</sup>, Kazuyo Moro<sup>1,4,5)</sup>

<sup>1)</sup>Laboratory for Innate Immune Systems, RIKEN IMS, <sup>2)</sup>Department of Applied Physics, Graduate School of Engineering, Osaka University, <sup>3)</sup>Department of Pharmacology, Graduate School of Medicine, The University of Tokyo, <sup>4)</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>5)</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC)

WS19-07-O/P

### **Differentiation and function of iBALT M cells induced by influenza infection**

○ Shingo Kawai<sup>1)</sup>, Shunsuke Kimura<sup>1)</sup>, Takahiro Yamada<sup>1,2)</sup>, Yutaka Nakamura<sup>1,3)</sup>, Shinichiro Sawa<sup>4)</sup>, Koji Hase<sup>1)</sup>

<sup>1)</sup>Division of Biochemistry, Faculty of Pharmacy, Keio University, <sup>2)</sup>Department of Immunology, Yale School of Medicine, <sup>3)</sup>Department of Microbiology and Immunology, School of Pharmaceutical Sciences, Wakayama Medical University, <sup>4)</sup>Division of Mucosal Immunology, Research Center for Systems Immunology, Medical Institute of Bioregulation, Kyushu University

WS19-14-O/P

### **Decoding Interactions between Environmental Small Molecules and Host GPCRs/Olfactory Receptors in the Gut**

○ Motohiko Kadoki<sup>1,2,3)</sup>, Daniel B Graham<sup>1,2,3)</sup>, Ramnik J Xavier<sup>1,2,3)</sup>

<sup>1)</sup>Massachusetts General Hospital, <sup>2)</sup>Broad Institute, <sup>3)</sup>Harvard Medical School

WS19-15-O/P

### **GPR31 signaling enhances immune responses in Peyer's patches by inducing dendrite protrusion of CX3CR1<sup>+</sup> phagocytes to M cells**

○ Katsuhiko Nakanishi, Takayuki Ajiro, Yuki Tsukamoto, Kaito Yukishima, Eiji Umemoto

Laboratory of Microbiology and Immunology, School of Pharmaceutical Sciences, University of Shizuoka

WS19-16-O/P

### **The pyruvate-GPR31 axis promotes transepithelial dendrite formation in human intestinal cDC1**

○ Eri Oguro-Igashira<sup>1,2)</sup>, Mari Murakami<sup>1)</sup>, Atsushi Kumanogoh<sup>2)</sup>, Kiyoshi Takeda<sup>1)</sup>

<sup>1)</sup>Laboratory of Immune Regulation, Graduate School of Medicine, Osaka University, Japan, <sup>2)</sup>Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University, Japan

WS19-17-O/P

### **Unveiling the crucial role of tuft cells in the amelioration of ulcerative colitis through appendectomy**

○ Shunya Hatai<sup>1)</sup>, Yasutaka Motomura<sup>1,2,3)</sup>, Koji Hosomi<sup>4)</sup>, Kiyoshi Takeda<sup>5)</sup>, Jun Kunisawa<sup>4)</sup>, Kazuyo Moro<sup>1,2,3,6)</sup>

<sup>1)</sup>Laboratory for Innate Immune Systems, Department of Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>2)</sup>Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Sciences (IMS), <sup>3)</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center, <sup>4)</sup>Laboratory of Vaccine Materials, National Institutes of Biomedical Innovation, Health and Nutrition, <sup>5)</sup>Laboratory of Immune Regulation, Department of Microbiology, and Immunology, Graduate School of Medicine, Osaka University, <sup>6)</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Osaka University Graduate School of Frontier Biosciences

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## **WS20 Innate lymphocytes**

15:30 ~ 16:45 Room F

Chairpersons: Naoko Satoh-Takayama, Takashi Ebihara

Innate lymphocytes, including innate lymphoid cells (ILCs), NK, NKT, and MAIT, are the key immune mediators between innate and adaptive immunity. Innate lymphocytes do not express antigen-specific receptors but are involved in immune regulation via surface receptors or cytokines. Recent dramatic updates in the function of these innate lymphocytes have revealed their involvement in many diseases. Therefore, understanding the differentiation and regulation of these innate lymphocytes may lead to new insight into the control of many diseases. In this session, we would like to discuss the regulation of innate lymphocytes differentiation and its pathogenesis in disease control. We welcome active discussion and communication from all participants.

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WS20-01-O/P

### **Themis2 regulates natural killer cell memory function and formation**

○ Tsukasa Nabekura<sup>1,2,3)</sup>, Elfira Amalia Deborah<sup>2,4)</sup>, Akira Shibuya<sup>1,2,3)</sup>

<sup>1)</sup>Life Science Center for Survival Dynamics, University of Tsukuba, <sup>2)</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, <sup>3)</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba, <sup>4)</sup>Doctoral Program in Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba



WS20-02-O/P

### **Mechanisms underlying perturbed NK cell activation during pregnancy**

○ Jennifer Habel<sup>1</sup>, Oanh Nguyen<sup>1</sup>, Anastasia Minervina<sup>2</sup>, E. Kaitlynn Allen<sup>2</sup>, Jeremy Chase Crawford<sup>2</sup>, Ilariya Tarasova<sup>1</sup>, Jan Schroeder<sup>1</sup>, Martha Lappas<sup>3</sup>, Susan Walker<sup>3</sup>, Paul G Thomas<sup>2</sup>, Louise Rowntree<sup>1</sup>, Katherine Kedzierska<sup>1,4</sup>

<sup>1</sup>Department of Microbiology and Immunology, University of Melbourne at the Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia, <sup>2</sup>Department of Immunology, St. Jude Children's Research Hospital, Memphis, Tennessee, USA, <sup>3</sup>Department of Obstetrics and Gynaecology, University of Melbourne, Heidelberg, Victoria, Australia, <sup>4</sup>Global Institution for Collaborative Research and Education (GI-CoRE), Hokkaido University, Sapporo, Japan

WS20-05-O/P

### **The metabolic adaptation is necessary for iNKT cells to differentiate into the follicular subset, which is regulated by Gr-1<sup>+</sup> cells**

○ Koji Hayashizaki<sup>1</sup>, Yasuhiro Kamii<sup>1</sup>, Toshio Kanno<sup>2</sup>, Masato Kubo<sup>3</sup>, Toshiaki Ohteki<sup>4</sup>, Kazuyoshi Kawakami<sup>5</sup>, Yusuke Endo<sup>2</sup>, Yuki Kinjo<sup>1</sup>

<sup>1</sup>Department of Bacteriology, The Jikei University School of Medicine, <sup>2</sup>Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, <sup>3</sup>Division of Molecular Pathology, Research Institute for Biomedical Sciences (RIBS), Tokyo University of Science, <sup>4</sup>Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University, <sup>5</sup>Department of Medical Microbiology, Mycology and Immunology, Tohoku University Graduate School of Medicine

WS20-06-O/P

### **Zeb2 regulates differentiation of memory invariant NKT cells**

○ Tomonori Iyoda<sup>1</sup>, Kanako Shimizu<sup>1,2,3</sup>, Takaho Endo<sup>4</sup>, Hiroshi Nakazato<sup>1</sup>, Satoru Yamasaki<sup>1</sup>, Shin-ichiro Fujii<sup>1,2,3</sup>

<sup>1</sup>Laboratory for Immunotherapy, RIKEN Center for Integrative Medical Sciences, <sup>2</sup>aAVC Drug Translational Unit, RIKEN Center for Integrative Medical Sciences, <sup>3</sup>Program for Drug Discovery and Medical Technology Platforms, RIKEN, <sup>4</sup>Laboratory for Integrative Genomics, RIKEN Center for Integrative Medical Sciences

WS20-07-O/P

### **Type 1 innate lymphoid cells protect the liver from ischemia-reperfusion injury in mice**

○ Kenshiro Matsuda<sup>1,2,3</sup>, Akira Shibuya<sup>1,2,3</sup>

<sup>1</sup>Department of Immunology, Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba, <sup>2</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, <sup>3</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS20-09-O/P

### **ILC2s exacerbate endometriosis via amphiregulin**

○ Kentaro Kubota<sup>1,2</sup>, Tsuyoshi Kuniwa<sup>1</sup>, Kazuyo Moro<sup>1,2,3</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, RIKEN IMS, <sup>2</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>3</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC)

WS20-12-O/P

### **Age-dependent expansion of group 3 innate lymphoid cells contributes to neutrophilic acute lung injury**

○ Masato Asaoka<sup>1,2</sup>, Tetsuro Kobayashi<sup>1</sup>, Tommy Walter Terooatea<sup>3</sup>, Jen Chien Chang<sup>3</sup>, Aki Minoda<sup>3</sup>, Koichi Fukunaga<sup>2</sup>, Hiroki Kabata<sup>2</sup>, Kazuyo Moro<sup>1,4,5</sup>

<sup>1</sup>Laboratory for Innate Immune systems, Center for Integrative Medical Sciences, RIKEN, <sup>2</sup>Division of Pulmonary Medicine, Department of Medicine, Keio University School of Medicine, <sup>3</sup>Laboratory for Cellular Epigenomics, Center for Integrative Medical Sciences, RIKEN, <sup>4</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>5</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC)

WS20-13-O/P

### **Cnot3 differentially regulates development and function of innate lymphoid cells**

○ Megumi Tatematsu<sup>1</sup>, Akane Fuchimukai<sup>1</sup>, Shunsuke Takasuga<sup>1</sup>, Toshiki Yamada<sup>1</sup>, Kenji Ishiwata<sup>2</sup>, Ichiro Taniuchi<sup>3</sup>, Shinichiro Sawa<sup>4</sup>, Keiji Kuba<sup>5</sup>, Takashi Ebihara<sup>1</sup>

<sup>1</sup>Department of Medical Biology, Akita University Graduate School of Medicine, <sup>2</sup>Department of Tropical Medicine, The Jikei University School of Medicine, <sup>3</sup>Laboratory for Transcriptional Regulation, RIKEN Center for Integrative Medical Sciences, <sup>4</sup>Division of Mucosal Immunology, Research Center for Systems Immunology, Kyushu University, <sup>5</sup>Department of Pharmacology, Kyushu University Graduate School of Medical Sciences

Production of B cells occurs initially during embryogenesis and then continuously throughout life, with the diversification of antigen receptors brought by successive rearrangements of the Ig locus, somatic hypermutation, and class-switch recombination. Each of these processes is precisely regulated by specific molecular machinery, which is linked to the potential of each B cell to proliferate and differentiate, further determining the humoral immunity. Dysregulation of those mechanisms can lead to diseases such as immunodeficiency, allergy, autoimmunity, and tumors. In this session, we would like to discuss new findings on the regulation of B cells from birth to death.

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WS21-01-O/P

**A multimorphic mutation in IRF4 causes human autosomal dominant combined immunodeficiency**

○ Zhijia Yu<sup>1</sup>, Oriol Fornes<sup>2</sup>, Alicia Jia<sup>2</sup>, Hye Sun Kuehn<sup>3</sup>, Qing Min<sup>4</sup>, Ulrich Pannicke<sup>5</sup>, Nikolai Schleussner<sup>6</sup>, Romane Thouenon<sup>7</sup>

<sup>1</sup>The Australian National University, <sup>2</sup>University of British Columbia, <sup>3</sup>NIH, <sup>4</sup>Fudan University, <sup>5</sup>University of Ulm, <sup>6</sup>MDC/ECRC, <sup>7</sup>Universite Paris Cite

WS21-02-O/P

**The origin of natural IgM-producing cells assessed by the RAG2-based cell fate tracking system**

○ Keiko Fujisaki<sup>1</sup>, Shogo Okazaki<sup>2</sup>, Ryo Goitsuka<sup>1</sup>

<sup>1</sup>Division of Cell Fate Regulation, Research Institute for Biomedical Sciences, Tokyo University of Science, <sup>2</sup>Department of Microbiology, Nihon University School of Dentistry

WS21-04-O/P

**Ago2 and a miRNA reduce DNA topoisomerase 1 (Top1) for enhancing DNA cleavage in antibody diversification by activation-induced cytidine deaminase (AID)**

○ Maki Kobayashi<sup>1</sup>, Hiroyuki Wakaguri<sup>2</sup>, Masakazu Shimizu<sup>2</sup>, Koichiro Higasa<sup>2</sup>, Fumihiko Matsuda<sup>2</sup>, Tasuku Honjo<sup>1</sup>

<sup>1</sup>Immunology and Genomic Medicine, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine, <sup>2</sup>Center for Genomic Medicine, Kyoto University Graduate School of Medicine

WS21-06-O/P

**Nucleolar protein NOP16 regulates AID induction and dictates the directionality of B-cell class switch recombination**

○ Yohana Silas Mtali, Ken Takashima, Hiroyuki Oshiumi

Department of Immunology, Graduate School of Medical Sciences, Kumamoto University

WS21-09-O/P

**Immunoglobulin A deficiency causes immunological and neurological disorders**

○ Takahiro Adachi<sup>1</sup>, Kiminori Nakamura<sup>2</sup>, Mayuko Hashimoto<sup>3</sup>, Yutaka Kusumoto<sup>3</sup>, Michio Tomura<sup>3</sup>

<sup>1</sup>Dept. Precision Health, MRI, TMDU, <sup>2</sup>Depart. Cell Biological Science, ALS, Hokkaido Univ. Graduate School of Life Science, <sup>3</sup>Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani Univ.

WS21-11-O/P

**Cytokine-induced IgE production from B1 cells exacerbates allergic inflammation**

○ Yasutaka Motomura<sup>1,2,4</sup>, Yohei Maeda<sup>3</sup>, Masaki Hayama<sup>3</sup>, Kazuyo Moro<sup>1,2,4</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University,

<sup>2</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC), <sup>3</sup>Department of Otorhinolaryngology-Head and Neck surgery, Graduate School of Medicine, Osaka University, Osaka, Japan, <sup>4</sup>Laboratory for Innate Immune Systems, RIKEN IMS

WS21-13-O/P

**Chronic BCR signaling shapes the generation and maintenance of age-associated B cells from anergic B cells**

○ Keisuke Imabayashi<sup>1</sup>, Hiroaki Niiro<sup>2</sup>, Yoshihiro Baba<sup>1</sup>

<sup>1</sup>Division of Immunology and Genome Biology, Medical Institute of Bioregulation, Kyushu University, <sup>2</sup>Department of Medical Education, Faculty of Medical Sciences, Kyushu University Graduate School of Medical Sciences

Although we were surprised by the effectiveness of immune checkpoint blocking antibodies, we still need more innovations and new treatments to overcome cancer. We have to work on how to enhance the antitumor activity of CD8-positive killer T cells (CTL), how to overcome cancer heterogeneity, how to overcome the immunosuppressive environment, and how to control various immune cells such as dendritic cells, macrophages, Treg, MDSCs, and monocytes. In this WS, we will discuss many research topics on Analysis of tumor immunity to overcome these issues.

WS22-01-O/P

**Identification of candidate target genes for maintaining TCF1<sup>high</sup> CD8<sup>+</sup> T cells under high IL-2 conditions**

○ Satsuki Okafuji<sup>1</sup>, Soyoko Morimoto<sup>2</sup>, Fumihiro Fujiki<sup>3</sup>, Akinori Nagata<sup>1</sup>, Jun Nakata<sup>1</sup>, Hiroko Nakajima<sup>4</sup>, Sumiyuki Nishida<sup>5,6</sup>, Yoshihiro Oka<sup>2</sup>, Yusuke Oji<sup>1</sup>, Haruo Sugiyama<sup>4</sup>

<sup>1</sup>Department of Clinical Laboratory and Biomedical Sciences, Osaka University Graduate School of Medicine, <sup>2</sup>Department of Cancer Stem Cell Biology, Osaka University Graduate School of Medicine, <sup>3</sup>Department of Cancer Immunotherapy, Osaka University Graduate School of Medicine, <sup>4</sup>Department of Cancer Immunology, Osaka University Graduate School of Medicine, <sup>5</sup>Strategic Global Partnership & X(Cross)-Innovation Initiative Graduate School of Medicine, Osaka University and Osaka University Hospital, <sup>6</sup>Department of Respiratory Medicine and Clinical Immunology Graduate School of Medicine, Osaka University

WS22-02-O/P

**Transcription factor Bach2 controls anti-tumor immunity via regulation of CD8 T cell innate immune function**

○ Yuko Matsuoka<sup>1</sup>, Junpei Suzuki<sup>2</sup>, Makoto Kuwahara<sup>2</sup>, Masakatsu Yamashita<sup>1,2</sup>

<sup>1</sup>Translational Research Center, Ehime University Hospital, Ehime University, <sup>2</sup>Department of Immunology, Graduate School of Medicine, Ehime University

WS22-03-O/P

**Characteristics of tumor antigen-reactive CD8<sup>+</sup> T cell population in tumor-infiltrating lymphocytes from gastric cancer**

○ Nobuo Tsukamoto<sup>1</sup>, Takafumi Okayama<sup>1,2</sup>, Toshihiro Suzuki<sup>1</sup>, Takahiro Kinoshita<sup>2</sup>, Tetsuya Nakatsura<sup>1</sup>

<sup>1</sup>Division of Cancer Immunotherapy, Exploratory Oncology Research & Clinical Trial Center, National Cancer Center, <sup>2</sup>Gastric Surgery Division, National Cancer Center Hospital East

WS22-04-O/P

**Fatty acid oxidation in CD8<sup>+</sup> T cells prevents terminally exhaustion and increases anti-tumor immunity**

○ Koji Kitaoka<sup>1</sup>, Yasuharu Haku<sup>1</sup>, Tomonori Yaguchi<sup>1,2</sup>, Tasuku Honjo<sup>1</sup>, Kenji Chamoto<sup>1,2</sup>

<sup>1</sup>Center for Cancer Immunotherapy and Immunobiology(CCI), Graduate School of Medicine, Kyoto University, <sup>2</sup>Department of Immunology PDT, Graduate School of Medicine Kyoto University

WS22-05-O/P

**Addressing Tumor Heterogeneity by Sensitizing Resistant Cancer Cells to T cell-secreted Cytokines**

○ Yoshinaga Ito<sup>1,2,3</sup>, Deng Pan<sup>2,3</sup>, Wubing Zhang<sup>4</sup>, Xixi Zhang<sup>2,3</sup>, Tiffany Juan<sup>2</sup>, Jason Pyrdol<sup>2</sup>, Oleksandr Kyrysyuk<sup>2</sup>, John Doench<sup>5</sup>, X. Shirley Liu<sup>4</sup>, Kai W. Wucherpfennig<sup>2,3</sup>

<sup>1</sup>Kyoto University, Institute for Life and Medical Sciences, <sup>2</sup>Department of Cancer Immunology and Virology, Dana-Farber Cancer Institute, <sup>3</sup>Department of Immunology, Harvard Medical School, <sup>4</sup>Department of Data Sciences, Dana-Farber Cancer Institute, <sup>5</sup>Genetic Perturbation Platform, Broad Institute of MIT and Harvard

WS22-06-O/P

**MAIT cells have a negative impact on glioblastoma**

○ Masaki Terabe<sup>1</sup>, Taijun Hana<sup>1</sup>, Seke Keretsu<sup>1</sup>, Nargis Malik<sup>1</sup>, Hye Kim<sup>1</sup>, Alexander Lee<sup>2</sup>, Matthew Watowich<sup>1</sup>, Masashi Watanabe<sup>1</sup>, Robert Prins<sup>2</sup>, Mark Gilbert<sup>1</sup>

<sup>1</sup>National Cancer Institute, NIH, <sup>2</sup>UCLA

### Analysis of intertumoral and intratumoral heterogeneity based on molecular subtypes in clear cell renal cell carcinoma reveals immune suppressive phenotype of the angiogenesis-related immune signatures

○ Katsuhiko Ito<sup>1,2</sup>, Tomonori Yaguchi<sup>1</sup>, Kenji Chamoto<sup>1</sup>, Takayuki Sumiyoshi<sup>2</sup>, Yuki Kita<sup>2</sup>, Takashi Kobayashi<sup>2</sup>, Tasuku Honjo<sup>1</sup>

<sup>1</sup>Kyoto University Graduate School of Medicine Department of Immunology and Genomic Medicine, <sup>2</sup>Kyoto University Graduate School of Medicine Department of Urology

## WS23 Organ specific autoimmunity

13:00 ~ 14:15 Room B

Chairpersons: Sachiko Miyake, Isao Matsumoto

Autoimmunity attacks a specific organ in patients with multiple sclerosis/neuromyelitis optica, inflammatory bowel diseases, thyroid diseases and type 1 diabetes. These organ-specific autoimmune diseases affect relatively large populations and constitute areas of unmet medical need. Recent advances in molecular targeted therapies as well as technologies including gene hunting, cell metabolism, microbiome analysis are shedding light on both clinical and research in this field. This session will cover a wide range of organs affected by human autoimmunity that could be manipulated by novel technologies.

### CLEC16A-driven mitophagy limits astrocyte proinflammatory activities

○ Atsushi Kadowaki<sup>1,2</sup>, Michael Wheeler<sup>1,3</sup>, Zhaolong Li<sup>1</sup>, Alain Ndayisaba<sup>1</sup>, Stephanie Zandee<sup>5</sup>, Himanish Basu<sup>4</sup>, Chun-Chei Chao<sup>1</sup>, Scott Soleimanpour<sup>6</sup>, Isaac Chiu<sup>4</sup>, Alexandre Prat<sup>5</sup>, Vikram Khurana<sup>1,7</sup>, Francisco Quintana<sup>1,3</sup>

<sup>1</sup>Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital, Harvard Medical School, <sup>2</sup>Department of Neurology, Osaka University, <sup>3</sup>Broad Institute of MIT and Harvard, Cambridge, <sup>4</sup>Department of Immunology, Harvard Medical School, <sup>5</sup>Neuroimmunology Research Lab, CRCHUM and Department of Neuroscience, Faculty of Medicine, Université de Montréal, <sup>6</sup>Division of Metabolism, Endocrinology and Diabetes and Department of Internal Medicine, University of Michigan Medical School, <sup>7</sup>Harvard Stem Cell Institute

### Ketogenic diet regulates central nervous inflammation via changes in small intestinal gut microbiota

○ Katsuki Yaguchi<sup>1,2</sup>, Tadashi Takeuchi<sup>1,3</sup>, Eiji Miyauchi<sup>1,4</sup>, Masami Kawasumi<sup>1</sup>, Yumiko Nakanishi<sup>1</sup>, Tamotsu Kato<sup>1</sup>, Jigen Sekine<sup>1</sup>, Shin Maeda<sup>2</sup>, Hiroshi Ohno<sup>1,5</sup>

<sup>1</sup>Laboratory for Intestinal Ecosystem, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan, <sup>2</sup>Department of Gastroenterology, Graduate School of Medicine, Yokohama City University, Yokohama, Japan, <sup>3</sup>Department of Microbiology and Immunology, Stanford University School of Medicine, California, USA, <sup>4</sup>Institute for Molecular and Cellular Regulation, Gunma University, Maebashi, Japan, <sup>5</sup>Immunobiology Laboratory, Department of Medical Life Science, Graduate School of Medical Life Science, Yokohama City University, Yokohama, Japan

### Mitochondrial cysteinyl-tRNA synthetase (CARS2) -dependent sulfur metabolism exacerbates a mouse model of multiple sclerosis through antigen presentation

○ Hibiki Suzuki<sup>1</sup>, Kyoga Hiraide<sup>1</sup>, Yuya Kitamura<sup>1</sup>, Shunichi Tayama<sup>1</sup>, Kosuke Sato<sup>1</sup>, Keita Koinuma<sup>1</sup>, Yuko Okuyama<sup>1</sup>, Takeshi Kawabe<sup>1</sup>, Takaaki Akaike<sup>2</sup>, Naoto Ishii<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, <sup>2</sup>Department of Environmental Health Sciences and Molecular Toxicology, Tohoku University Graduate School of Medicine

### Self-reactive Th cells express Neuropilin-1 (NRP1) following activation in autoimmune disease

○ Ben JE Raveney<sup>1,2</sup>, Atsuko Kimura<sup>1</sup>, Youwei Lin<sup>3</sup>, Tomoko Okamoto<sup>3</sup>, Atsuko Katsumoto<sup>3</sup>, Reiko Saika<sup>3</sup>, Shohei Hori<sup>4</sup>, Wakiro Sato<sup>1,3</sup>, Shinji Oki<sup>1</sup>, Takashi Yamamura<sup>1,3</sup>

<sup>1</sup>National Institute of Neuroscience; National Center of Neurology and Psychiatry, Kodaira, Tokyo, Japan, <sup>2</sup>RIKEN IMS, Yokohama, Kanagawa, Japan, <sup>3</sup>National Center Hospital, National Center of Neurology and Psychiatry, Kodaira, Tokyo, Japan, <sup>4</sup>Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan

### GM-CSF promotes long-term survival of myeloid cells of peripheral origin in the central nervous system for pain-induced relapse of neuroinflammation

○ Shintaro Hojyo<sup>1,3,7</sup>, Shiina Matsuyama<sup>1</sup>, Reiji Yamamoto<sup>1,2</sup>, Kaoru Murakami<sup>1,3</sup>, Junko Nio-Kobayashi<sup>4</sup>, Tadafumi Kawamoto<sup>5</sup>, Takeshi Yamasaki<sup>6,1</sup>, Rie Hasebe<sup>1,6</sup>, Daisuke Kamimura<sup>1</sup>, Shigeru Hashimoto<sup>1</sup>, Yuki Tanaka<sup>1,3</sup>, Masaaki Murakami<sup>1,3,6,7</sup>

<sup>1</sup>Division of Molecular Psychoneuroimmunology, Institute for Genetic Medicine and Graduate School of Medicine, Hokkaido University, Sapporo, Japan, <sup>2</sup>Department of Orthopaedic Surgery, Faculty of Medicine and Graduate School of Medicine, Hokkaido University, Sapporo, Japan, <sup>3</sup>Group of Quantum Immunology, Institute for Quantum Life Science, National Institute for Quantum and Radiological Science and Technology, Inage, Japan, <sup>4</sup>Laboratory of Histology and Cytology, Graduate School of Medicine, Hokkaido University, Sapporo, Japan, <sup>5</sup>Department of Dentistry, Tsurumi University, Yokohama, Japan, <sup>6</sup>Division of Molecular Neuroimmunology, National Institute for Physiological Sciences, National Institute for Natural Sciences, Okazaki, Japan, <sup>7</sup>Institute for Vaccine Research and Development, Hokkaido University, Sapporo, Japan

WS23-09-O/P

### Protective Effects of Inulin on Stress-Recurrent Inflammatory Bowel Disease

○ Kanami Orihara, Yao Du, Kanta Kusama, Xinyue Chen, Susumu Kajiwara  
Tokyo Institute of Technology, School of Life Science and Engineering

WS23-12-O/P

### Treg-mediated inhibition of protein translation in effector T cells is critical in maintaining peripheral tolerance in humans and mice

○ Kazushige Obata-Ninomiya<sup>1</sup>, Lomon So<sup>1,2</sup>, Jing Song<sup>1</sup>, Jane H Buckner<sup>1</sup>, Ram Savan<sup>1</sup>, Steven F Ziegler<sup>1</sup>  
<sup>1</sup>Benaroya Research Institute at Virginia Mason, <sup>2</sup>University of Washington

WS23-18-O/P

### Oral bacteria trigger the production of IgA autoantibodies in IgA nephropathy model mice

○ Mizuki Higashiyama<sup>1</sup>, Kei Haniuda<sup>2,1</sup>, Yoshihito Nihei<sup>3,1</sup>, Daisuke Kitamura<sup>1</sup>  
<sup>1</sup>Tokyo University of Science, Research Institute for Biomedical Sciences(RIBS), <sup>2</sup>Department of Immunology, University of Toronto, Toronto, Canada, <sup>3</sup>Department of Nephrology, Juntendo University Faculty of Medicine, Tokyo, Japan

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## WS24 T cell development and function

13:00 ~ 14:15 Room C

Chairpersons: Takeshi Nitta, Izumi Ohigashi

Immunocompetent and self-tolerant T cells are crucial for the proper functioning of the adaptive immune system. The development of functional T cells is regulated in a multilayered manner, including lineage specification, differentiation, repertoire selection, and activation. In this session, we will discuss recent progress in our understanding of the regulatory mechanisms in the development and function of conventional as well as non-conventional T cells. It also focuses on the evolution of the adaptive immune system. We welcome your active participation and discussion. [Each speaker is allotted 7 min for presentation and 3 min for discussion.]

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WS24-01-O/P

### Cytidine deaminase-based assembly of anticipatory antigen receptors in lamprey alternative adaptive immune system

○ Ryo Morimoto  
Max Planck Institute of Immunobiology and Epigenetics

WS24-03-O/P

### Single-cell Multiome analysis unravels the lineage choice of T-cell versus innate lymphoid cells mediated by E2A-Id2-Notch1 axis

○ Masaki Miyazaki<sup>1</sup>, Kazuko Miyazaki<sup>1</sup>, Kenta Horie<sup>2,3</sup>, Taishin Akiyama<sup>2</sup>, katsuto Hozumi<sup>4</sup>, Hiroshi Kawamoto<sup>1</sup>  
<sup>1</sup>Kyoto University, <sup>2</sup>RIKEN center for integrative medical sciences, <sup>3</sup>Chiba University, <sup>4</sup>Tokai University School of Medicine

WS24-11-O/P

### Understanding of Lck functions during thymocyte differentiation

○ Junji Harada<sup>1,2</sup>, Ichiro Taniuchi<sup>1</sup>  
<sup>1</sup>Laboratory for Transcriptional Regulation, Center for Integrative Medical Sciences, RIKEN, <sup>2</sup>Department of RIKEN Molecular and Chemical Somatology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University

WS24-13-O/P

### T cell receptor repertoires of regulatory and conventional T cells converge during differentiation into effector or memory states

○ Reiko Tsukazaki, Ryuichi Murakami, Shohei Hori  
Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS24-19-O/P

### (Pro)renin receptor controls immune responses by promoting the survival of naive T and iNKT cells

○ Satoru Munakata<sup>1,2</sup>, Akihiro Shimba<sup>1,3</sup>, Koichi Ikuta<sup>1</sup>  
<sup>1</sup>Laboratory of Immune Regulation, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Graduate School of Biostudies, Kyoto University, <sup>3</sup>Department of Human Health Sciences, Graduate School of Medicine, Kyoto University

WS24-20-O/P

### Vitamin C treatment enhances the immune responses of CD8<sup>+</sup> T cells by upregulation of Batf3

○ Kenta Kondo, Koji Terada, Yasutoshi Agata  
Department of Biochemistry and Molecular Biology, Shiga University of Medical Science

**Unique structural basis of the recognition of bulky mycobacterial glycolipid by a novel CD1-restricted TCR**○ Minoru Asa<sup>1,2</sup>, Yuki Sakai<sup>1,2</sup>, Wakana Kusuhara<sup>1,2</sup>, Sho Yamasaki<sup>1,2</sup><sup>1</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, <sup>2</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center (iFReC), Osaka University**WS25 Mucosal-skin immunity2**

13:00 ~ 14:15 Room D

Chairpersons: Yumi Matsuoka, Yoshiyuki Goto

Skin and mucosal surfaces serve as physical and immunological barriers against environmental antigens. Constitutive exposure to innumerable antigens gives unique features to the host skin and mucosal immune systems. A complex network of innate and adaptive immune cells—including innate lymphoid cells, dendritic cells, eosinophils, IgA+ B cells, and T cells—resides in the skin and mucosal tissues. These cells interact with one another as well as with fibroblasts and epithelial cells to create a protective and homeostatic platform against environmental antigens. Aberrant behavior of immune cells can predispose to inflammatory diseases and infection. This workshop aims to discuss and exchange recent findings on the molecular and cellular mechanism of skin and mucosal immune systems, as well as the development of immune cell-based therapeutic approaches, including mucosal vaccines.

**TRPV1<sup>+</sup> sensory neuron enhances dendritic cell migration to lymph nodes by a CGRP-RAMP1 axis in contact hypersensitivity**○ Masafumi Yamanaka<sup>1</sup>, Otagiri Tomoki<sup>1</sup>, Daisuke Kamako<sup>1</sup>, Kohta Kurohane<sup>1</sup>, Michio Tomura<sup>2</sup>, Gyohei Egawa<sup>3</sup>, Kenji Kabashima<sup>3</sup>, Eiji Umemoto<sup>1</sup><sup>1</sup>Laboratory of Microbiology and Immunology, School of Pharmaceutical Sciences, University of Shizuoka, <sup>2</sup>Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, <sup>3</sup>Department of Dermatology, Kyoto University Graduate School of Medicine**Role of cutaneous free fatty acids in the pathogenesis of acne vulgaris**○ Takashi Sugihira<sup>1,2,3</sup>, Seitaro Nakagawa<sup>1,3</sup>, Manabu Fujimoto<sup>3</sup>, Yumi Matsuoka-Nakamura<sup>1,3,4</sup><sup>1</sup>Department of Cutaneous Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>2</sup>Basic Research Development Division, Rohto Pharmaceutical Co., Ltd., <sup>3</sup>Department of Dermatology, Graduate School of Medicine, Osaka University, <sup>4</sup>Cutaneous Allergy and Host Defense, Immunology Frontier Research Center, Osaka University**Analyses of CD8<sup>+</sup> gd T cells observed in mouse psoriasis model with imiquimod application**

○ Himawari Matsunaga, Koichi Sudo, Kazuhiko Takahara

Laboratory of Immunobiology, Graduate school of Biostudies, Kyoto University

**Sensory neuronal STAT3 is critical for IL-31 receptor expression and inflammatory itch**○ Sonoko Takahashi<sup>1</sup>, Sotaro Ochiai<sup>1,2</sup>, Jianshi Jin<sup>3</sup>, Noriko Takahashi<sup>1</sup>, Susumu Toshima<sup>1,4</sup>, Harumichi Ishigame<sup>1,5</sup>, Kenji Kabashima<sup>6</sup>, Masato Kubo<sup>1,7</sup>, Manabu Nakayama<sup>8</sup>, Katsuyuki Shiroguchi<sup>9</sup>, Takaharu Okada<sup>1,10</sup><sup>1</sup>RIKEN IMS, <sup>2</sup>Malaghan Institute of Medical Research, <sup>3</sup>Chinese Academy of Sciences, <sup>4</sup>Keio University, <sup>5</sup>Kansai Medical University, <sup>6</sup>Kyoto University, <sup>7</sup>Tokyo University of Science, <sup>8</sup>Kazusa DNA Research Institute, <sup>9</sup>RIKEN BDR, <sup>10</sup>Yokohama City University**Deubiquitinase OTUD3 prevents progression of ulcerative colitis by modulating microbiota-mediated STING activation in intestinal fibroblasts**○ Bo Li<sup>1</sup>, Taiki Sakaguchi<sup>1</sup>, Hisako Kayama<sup>1,2,3</sup>, Kiyoshi Takeda<sup>1,2,4</sup><sup>1</sup>Laboratory of Immune Regulation, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>2</sup>WPI Immunology Frontier Research Center, Osaka University, <sup>3</sup>Institute for Advanced Co-Creation Studies, Osaka University, <sup>4</sup>Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University**Microbiota-dependent activation of CD4<sup>+</sup> T cells induces CTLA-4 blockade-associated colitis via Fcγ receptors**

○ Bernard Lo, Gabriel Núñez

University of Michigan

WS25-07-O/P

**Bacterial induction of B cell senescence promotes age-related changes in the gut microbiota**○ Shimpei Kawamoto<sup>1</sup>, Ken Uemura<sup>1</sup>, Nozomi Hori<sup>1</sup>, Kazutaka Katoh<sup>1</sup>, Takahiro Adachi<sup>2</sup>, Naoko Ohtani<sup>3</sup>, Standley M. Daron<sup>1,4,5</sup>, Wataru Suda<sup>6</sup>, Shinji Fukuda<sup>7,8,9,10</sup>, Eiji Hara<sup>1,4,5</sup><sup>1</sup>Research Institute for Microbial Diseases, Osaka University, <sup>2</sup>Medical Research Institute, Tokyo Medical and Dental University, <sup>3</sup>Graduate School of Medicine, Osaka Metropolitan University, <sup>4</sup>Immunology Frontier Research Center, Osaka University, <sup>5</sup>Center for Infectious Disease Education and Research, Osaka University, <sup>6</sup>RIKEN Center for Integrative Medical Sciences, <sup>7</sup>Institute for Advanced Biosciences, Keio University, <sup>8</sup>Kanagawa Institute of Industrial Science and Technology, <sup>9</sup>Transborder Medical Research Center, University of Tsukuba, <sup>10</sup>Juntendo University Graduate School of Medicine

WS25-08-O/P

**Commensal microorganisms cooperatively promote polyreactive S-IgA production by inducing follicular helper T cells in Peyer's patch**

○ Kisara Hattori, Daisuke Takahashi, Koji Hase

Graduate School of Pharmaceutical Science, Keio University

WS25-09-O/P

**Disentangling the Connection between Oral and Gut During the Intestinal Tumorigenesis**

○ Sho Kitamoto

WPI Immunology Frontier Research Center Osaka University

**WS26 Human immunology and immunogenetics**

13:00 ~ 14:15 Room E

Chairpersons: Kazuyoshi Ishigaki, Ai Kawana-Tachikawa

Immunology experiences great success using animal disease models. However, no animal model can completely mimic the human immune system. Therefore, we need to boost human-oriented immunological investigation in addition to model animal-oriented immunology. Moreover, human immunology is becoming an urgent topic to tackle, considering the current and future pandemics. This session highlights i) antigen-specific immune responses in the context of vaccination, infection, and autoimmunity and ii) immunogenetics based on large-scale genetics studies and transcriptome datasets using human samples.

WS26-01-O/P

**CD62L expression marks SARS-CoV-2 memory B-cell subset with preference for neutralizing epitopes**○ Taishi Onodera<sup>1</sup>, Yu Adachi<sup>1</sup>, Ryutaro Kotaki<sup>1</sup>, Takeshi Inoue<sup>2</sup>, Ryo Shinnakasu<sup>2</sup>, Saya Moriyama<sup>1</sup>, Takayuki Matsumura<sup>1</sup>, Masanori Isogawa<sup>1</sup>, Masaharu Shinkai<sup>5</sup>, Tomohiro Kurosaki<sup>2,3</sup>, Kazuo Yamashita<sup>4</sup>, Yoshimasa Takahashi<sup>1</sup><sup>1</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, <sup>2</sup>Center for Infectious Diseases Education and Research, Osaka University; Osaka, Japan, <sup>3</sup>Laboratory of Lymphocyte Differentiation, WPI Immunology Frontier Research Center, Osaka University; Osaka, Japan., <sup>4</sup>KOTAI Biotechnologies, Inc., <sup>5</sup>Tokyo Shinagawa Hospital; Tokyo, Japan

WS26-02-O/P

**CD8<sup>+</sup> T-cell memory induced by SARS-CoV-2 mRNA vaccination is maintained by clonal replenishment**○ Satoshi Ueha<sup>1</sup>, Hiroyasu Aoki<sup>1</sup>, Masahiro Kitabatake<sup>2</sup>, Shigeyuki Shichino<sup>1</sup>, Atsushi Hara<sup>2</sup>, Noriko Uji-Sageshima<sup>2</sup>, Toshihiro Ito<sup>2</sup>, Kouji Matsushima<sup>1</sup><sup>1</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, <sup>2</sup>Department of Immunology, Nara Medical University

WS26-09-O/P

**Lethal Cytokine Storm and Microthrombosis Post-mRNA Booster Vaccination**○ Yuki Masuo<sup>1,2</sup>, Hiroyuki Yoshitomi<sup>1</sup>, Takao Hashiguchi<sup>2,4</sup>, Sachiko Minamiguchi<sup>5</sup>, Takamoto Hirota<sup>6</sup>, Kinta Hatakeyama<sup>7</sup>, Yoshihiko Ikeda<sup>7</sup>, Keiko Ohta-Ogo<sup>7</sup>, Masanori Matsumoto<sup>8</sup>, Tomoya Hayashi<sup>9</sup>, Ken J. Ishii<sup>9</sup>, Hideki Ueno<sup>1,2,3</sup><sup>1</sup>Department of Immunology, Graduate School of Medicine, Kyoto University, <sup>2</sup>Kyoto University Immunomonitoring Center, Kyoto University, <sup>3</sup>ASHBi Institute for the Advanced Study of Human Biology, Kyoto University, <sup>4</sup>Laboratory of Medical Virology, Institute for Life and Medical Sciences, Kyoto University, <sup>5</sup>Department of Diagnostic Pathology, Kyoto University Hospital, <sup>6</sup>Department of Cardiology, Osaka Saiseikai Noe Hospital, <sup>7</sup>Department of Pathology, National Cerebral and Cardiovascular Center Hospital, <sup>8</sup>Department of Hematology, Nara Medical University, <sup>9</sup>Division of Vaccine Science, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo

WS26-10-O/P

**Profound increase of a-synuclein-specific Th17 responses in Parkinson's disease is associated with adjuvant effects of a-synuclein aggregates to dendritic cells**○ Emi Nishii<sup>1</sup>, Soichiro Yoshikawa<sup>1</sup>, Asako Chiba<sup>1</sup>, Ayami Okuzumi<sup>2</sup>, Shin-ichi Ueno<sup>2</sup>, Yasunobu Hoshino<sup>2</sup>, Taku Hatano<sup>2</sup>, Nobutaka Hattori<sup>2</sup>, Sachiko Miyake<sup>1</sup><sup>1</sup>Department of Immunology Juntendo University Faculty of Medicine, <sup>2</sup>Department of Neurology Juntendo University Faculty of Medicine



WS26-11-O/P

### Quantification of the escape from X chromosome inactivation with the million cell-scale human blood single-cell RNA-seq datasets reveals heterogeneity of escape across immune cells

○ Yoshihiko Tomofuji<sup>1,3</sup>, Ryuya Edahiro<sup>1,3</sup>, Yuya Shirai<sup>1</sup>, Kyuto Sonehara<sup>1,2,3</sup>, Qingbo Wang<sup>1,2,3</sup>, Atsushi Kumanogoh<sup>1</sup>, Yukinori Okada<sup>1,2,3</sup>

<sup>1</sup>Osaka University Graduate School of Medicine, <sup>2</sup>Graduate School of Medicine, The University of Tokyo, <sup>3</sup>RIKEN Center for Integrative Medical Science

WS26-12-O/P

### A gene expression regulatory variant in *CD58* confers susceptibility to human autoimmune diseases

○ Yuki Hitomi<sup>1</sup>, Yoshihiro Aiba<sup>2</sup>, Minoru Nakamura<sup>2,3</sup>

<sup>1</sup>Department of Human Genetics, Research Institute, National Center for Global Health and Medicine, <sup>2</sup>Clinical Research Center, National Hospital Organization (NHO) Nagasaki Medical Center, <sup>3</sup>Department of Hepatology, Nagasaki University Graduate School of Biomedical Sciences

WS26-13-O/P

### A simultaneous examination of transcriptome, mucin protein expression, and histology in Japanese childhood ulcerative colitis patients

○ Kosuke Kashiwagi<sup>1,2</sup>, Tomoaki Ando<sup>1</sup>, Masanori Toda<sup>1,2</sup>, Ayako Kaitani<sup>1</sup>, Kumi Izawa<sup>1</sup>, Keisuke Jimbo<sup>2</sup>, Takahiro Kudo<sup>2</sup>, Toshiaki Shimizu<sup>1,2</sup>, Jiro Kitaura<sup>1</sup>

<sup>1</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2</sup>Department of Pediatrics, Juntendo University Graduate School of Medicine

## WS27 Hematopoiesis and immune environment

13:00 ~ 14:15 Room F

Chairpersons: Koichi Ikuta, Ai Kotani

Immune cells develop in the primary lymphoid organs, such as the bone marrow and thymus, and immune responses are initiated in the secondary lymphoid organs, such as the lymph nodes and spleen. In addition, recent studies have revealed that immune cell homeostasis and function are regulated in peripheral tissues, where actual injury and infection occur and cancer develops. In this session, we will discuss the cellular and molecular mechanisms involved in the immune cell development and evolution and their regulation by the tissue microenvironment.

WS27-01-O/P

### Evolutionary anlage of T cells and thymus in invertebrate ancestors

○ Yosuke Nagahata<sup>1</sup>, Ryota Kaitani<sup>1</sup>, Izumi Oda<sup>2</sup>, Yutaka Satou<sup>2</sup>, Hiroshi Kawamoto<sup>1</sup>

<sup>1</sup>Laboratory of Immunology, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Department of Zoology, Graduate School of Science, Kyoto University

WS27-05-O/P

### Single cell genomics revealed critical molecules affecting cell fate of human stem/progenitor cells

○ Makoto Iwasaki<sup>1,2</sup>, Luginbuehl Joachim<sup>1</sup>, Yoriko Saito<sup>1</sup>, Ari Itoh-Nakada<sup>1</sup>, Leonard Shultz<sup>3</sup>, Akifumi Takaori-Kondo<sup>2</sup>, Jay Shin<sup>1</sup>, Fumihiko Ishikawa<sup>1</sup>

<sup>1</sup>RIKEN Center for Integrative Medical Sciences, Yokohama, Japan, <sup>2</sup>Department of Hematology and Oncology, Kyoto University, Kyoto, Japan, <sup>3</sup>The Jackson Laboratory

WS27-07-O/P

### Manipulation of HSPC lineage priming via antisense-oligonucleotide-mediated expression of *Nfkbiz*

○ Shinnosuke Yamada<sup>1</sup>, Takuya Uehata<sup>1</sup>, Kazunori Toratani<sup>1</sup>, Daisuke Ori<sup>2</sup>, Osamu Takeuchi<sup>1</sup>

<sup>1</sup>Department of Medical Chemistry, Graduate School of Medicine, Kyoto University, <sup>2</sup>Laboratory of Molecular Immunobiology, Graduate School of Biological Sciences, Nara Institute of Science and Technology

WS27-08-O/P

### Interaction of *Bcl11b* with *Cxnc1* is required for the establishment of the chromatin structure in thymocytes

○ Kazuki Okuyama, Ichiro Taniuchi

Lab for Transcriptional Regulation, RIKEN IMS

WS27-09-O/P

### Polycomb group proteins *PCGF2* and *PCGF4* work together during erythrocyte and megakaryocyte differentiation

○ Mayumi Hirakawa, Yutaro Ohashi, Mizuki Sakihara, Tomokatsu Ikawa

Tokyo University of Science



WS27-12-O/P

**Semaphorin 6D maintains amygdalar neural integrity to coordinate emotional, metabolic and inflammatory outputs**

○ Mayuko Izumi, Yoshimitsu Nakanishi, Atsushi Kumanogoh

Department of Respiratory Medicine and Clinical Immunology, Graduate School of medicine, Osaka University

WS27-13-O/P

**DNAM-1 immunoreceptor protects mice from concanavalin A-induced acute liver injury by reducing neutrophil infiltration**○ Soichi Matsuo<sup>1,2</sup>, Tsukasa Nabekura<sup>3,4</sup>, Kenshiro Matsuda<sup>3,4</sup>, Kazuko Shibuya<sup>1,4</sup>, Akira Shibuya<sup>1,3,4</sup><sup>1</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, Japan, <sup>2</sup>Doctoral Program in Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan, <sup>3</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan, <sup>4</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba, Japan

WS27-14-O/P

**Bone marrow microenvironment for NK cell differentiation and localization**○ Shinya Abe<sup>1</sup>, Akihiro Shimba<sup>1</sup>, Shizue Tani-ichi<sup>1</sup>, Takashi Nagasawa<sup>2,3,4</sup>, Koichi Ikuta<sup>1</sup><sup>1</sup>Laboratory of Immune Regulation, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Laboratory of Stem Cell Biology and Developmental Immunology, Graduate School of Frontier Biosciences, Osaka University, <sup>3</sup>Laboratory of Stem Cell Biology and Developmental Immunology, Graduate School of Medicine, Osaka University, <sup>4</sup>Laboratory of Stem Cell Biology and Developmental Immunology, WPI Immunology Frontier Research Center, Osaka University**WS28 B cell (2)- fight against infectious diseases**

13:00 ~ 14:15 Room G

Chairpersons: Tomoharu Yasuda, Saya Moriyama

B cells mediate humoral immune responses by secreting antibodies against foreign antigens and thus play a critical role in protective immunity against various pathogens. When B cells encounter antigens in peripheral lymphoid organs, they undergo a complex series of activation and maturation processes to generate germinal center B cells, memory B cells, and antibody-secreting plasma cells. In this session, we will discuss how B cells respond to foreign antigens and contribute to protective immunity, particularly focusing on SARS-CoV-2 infection and immune responses against pathogens including vaccines, which has greatly progressed in recent years.

WS28-07-O/P

**The contribution of IL-9 receptors on peritoneal B cells in T cell-independent immune responses**

○ Mari Tenno, Takumi Umezu, Kei Kato, Daisuke Kitamura

Toyo University of Science, Research Institute of Biological Sciences (RIBS)

WS28-10-O/P

**Deciphering antibody-antigen specificity by clustering complementarity determining regions**○ Dianita Susilo Saputri<sup>1</sup>, Hendra Saputra Ismanto<sup>1</sup>, Dendi Krisna Nugraha<sup>1</sup>, Zichang Xu<sup>2</sup>, Yasuhiko Horiguchi<sup>1,3</sup>, Shuhei Sakakibara<sup>2,4</sup>, Daron Michaelangelo Standley<sup>1,2,3</sup><sup>1</sup>RIMD, Osaka Univ., <sup>2</sup>iFReC, Osaka Univ., <sup>3</sup>CiDER, Osaka Univ., <sup>4</sup>Jikei Univ. of Health Care Sciences

WS28-11-O/P

**Multimodal analysis of COVID-19, Bacterial Sepsis and mRNA vaccination cohorts reveals SARS-CoV2 specific subpopulations of activated memory B-cells**○ David G. Priest<sup>1</sup>, Janyerkye Tulyeu<sup>2</sup>, Jonas Sondergaard<sup>2</sup>, Yuki Togami<sup>3</sup>, Yumi Mitsuyama<sup>4</sup>, Shuhei Sakakibara<sup>5</sup>, Takeshi Ebihara<sup>3</sup>, Hisatake Matsumoto<sup>3</sup>, Hiroshi Ogura<sup>3</sup>, James B. Wing<sup>1,2</sup><sup>1</sup>Laboratory of Human Single Cell Immunology, iFReC, Osaka University, <sup>2</sup>Human Single Cell Immunology Team, CiDER, Osaka University, <sup>3</sup>Department of Traumatology and Acute Critical Medicine, Osaka University Graduate School of Medicine, <sup>4</sup>Division of Trauma and Surgical Critical Care, Osaka General Medical Center, <sup>5</sup>Laboratory of Immune Regulation, iFReC, Osaka University

WS28-12-O/P

**Sequential exposure to different SARS-CoV-2 antigens induces broadly neutralizing antibodies in mice and humans**○ Hitoshi Azuma<sup>1</sup>, Yohei Kawano<sup>1</sup>, Akifumi Higashiura<sup>2</sup>, Yasuo Kitajima<sup>1</sup>, Shun Ohki<sup>1</sup>, Tomoharu Yasuda<sup>1</sup><sup>1</sup>Department of Immunology, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, 734-8551, Japan,<sup>2</sup>Department of Virology, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, 734-8551, Japan

WS28-13-O/P

### **Longitudinal profiling of humoral immune memory elicited by inactivated rabies virus vaccine**

○ Mizuki Fujisawa<sup>1,2)</sup>, Taishi Onodera<sup>2)</sup>, Michihito Sasaki<sup>3,6)</sup>, Yukari Itakura<sup>6)</sup>, Daisuke Kuroda<sup>2)</sup>, Kohei Yumoto<sup>2)</sup>, Chidchamai Kewcharoenwong<sup>4)</sup>, Arnone Nithichanon<sup>4)</sup>, Ganjana Lertmemongkolchai<sup>4)</sup>, Tadaki Suzuki<sup>5)</sup>, Hirofumi Sawa<sup>6,7)</sup>, Yoshimasa Takahashi<sup>2)</sup>

<sup>1)</sup>Department of Life Science and Medical Bioscience, Graduate School of Advanced Science and Engineering, Waseda University (TWIns), Japan, <sup>2)</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Japan, <sup>3)</sup>Division of Molecular Pathobiology, International Institute for Zoonosis Control (IIZC), Hokkaido University, Japan, <sup>4)</sup>Department of Medical Technology, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand, <sup>5)</sup>Department of Pathology, National Institute of Infectious Diseases, Japan, <sup>6)</sup>Institute for Vaccine Research and Development, Hokkaido University, Japan, <sup>7)</sup>One Health Research Center, Hokkaido University, Japan

WS28-14-O/P

### **Repeated exposure to SARS-CoV-2 Omicron antigens alleviates immunological imprinting and develops Omicron-specific B cells with phenotypically distinctive features**

○ Ryutaro Kotaki<sup>1)</sup>, Saya Moriyama<sup>1)</sup>, Yu Adachi<sup>1)</sup>, Eita Sasaki<sup>1)</sup>, Kota Ishino<sup>1)</sup>, Miwa Morikawa<sup>2)</sup>, Hiroaki Takei<sup>2)</sup>, Hidenori Takahashi<sup>2)</sup>, Masanori Isogawa<sup>1)</sup>, Takayuki Matsumura<sup>1)</sup>, Masaharu Shinkai<sup>2)</sup>, Yoshimasa Takahashi<sup>1)</sup>

<sup>1)</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, <sup>2)</sup>Tokyo Shinagawa Hospital

WS28-15-O/P

### **In silico evolution of SARS-CoV-2 antibodies in humans increases the resilience against emerging Omicron subvariants**

○ Daisuke Kuroda, Saya Moriyama, Kohei Yumoto, Yu Adachi, Taishi Onodera, Yoshimasa Takahashi  
Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases

WS28-16-O/P

### **The epigenetic modifier BMI-1 drives both protective and pathogenic B cell responses to malaria**

○ Ke Wang<sup>1)</sup>, Francis Claessens<sup>1)</sup>, Kim Good-Jacobson<sup>2)</sup>, Ian Cockburn<sup>1)</sup>

<sup>1)</sup>Immunology and Infectious Disease Division, John Curtin School of Medical Research, the Australian National University, Canberra, ACT, Australia, <sup>2)</sup>Department of Biochemistry and Molecular Biology, Monash University, Clayton, Victoria, Australia

# Poster

○ : Presenter



## WS01 Infection immunity 1

WS01-01-P

### **Transcriptional state of circulating neutrophils as a prediction factor for the survival fate upon lethal viral infection**

○ Riho Saito<sup>1</sup>, Tomohiko Okazaki<sup>2</sup>, Yukiko Gotoh<sup>1</sup>

<sup>1</sup>Lab. of Mol. Biol., Grad. Sch. of Pharm. Sci., Univ. of Tokyo, <sup>2</sup>Lab. of Mol. Cell Biol., Inst. for Gen. Med., Hokkaido Univ.

WS01-02-O/P

### **Immunosuppression by CXCR2+ MDSC-like cells exacerbates defense responses of the central nervous system after viral infection**

○ Akisawa Satomi<sup>1</sup>, Tomohiko Okazaki<sup>2</sup>, Yukiko Gotoh<sup>1</sup>

<sup>1</sup>Tokyo Univ., <sup>2</sup>Hokkaido Univ.

WS01-03-P

### **The expression of atypical type I interferon subsets is associated with cellular cholesterol levels and primes antiviral innate immune responses in a cell-type-specific manner**

○ Tasuku Nishimura, Takahisa Kouwaki, Hiroyuki Oshiumi

Department of Immunology, Graduate School of Medical Sciences, Kumamoto University

WS01-04-P

### **Lupus brain antigen-1 (LBA1) is essential for the expression of chemokines in the innate immune responses**

○ Takahisa Kouwaki, Hiroyuki Oshiumi

Kumamoto Univ.

WS01-05-O/P

### **A protective role of Regnase-4 in HSV-1 infection in mice**

○ Junichi Aoki<sup>1,2</sup>, Keiko Yasuda<sup>1</sup>, Kotaro Tanaka<sup>1</sup>, Osamu Takeuchi<sup>1</sup>

<sup>1</sup>Department of Medical Chemistry, Graduate School of Medicine, Kyoto University, <sup>2</sup>Orthopaedic Surgery, Osaka University Graduate School of Medicine

WS01-06-P

### **Identification of hepatitis B viral envelope pre-S epitopes for broadly neutralizing antibodies from convalescent individuals**

○ Saya Moriyama<sup>1</sup>, Sun Lin<sup>1</sup>, Sachiyo Yoshio<sup>2</sup>, Taishi Onodera<sup>1</sup>, Ryosuke Suzuki<sup>3</sup>, Takanobu Kato<sup>3</sup>, Masanori Isogawa<sup>1</sup>, Tatsuya Kanto<sup>2</sup>, Yoshimasa Takahashi<sup>1</sup>

<sup>1</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, <sup>2</sup>Department of Liver Diseases, The Research Center for Hepatitis and Immunology, National Center for Global Health and Medicine, <sup>3</sup>Department of Virology II, National Institute of Infectious Diseases

WS01-07-P

### **Induction of apoptosis and inflammation by nonstructural proteins of enterovirus A71 in human neuroblastoma SH-SY5Y cells**

○ Jeeraphong Thanongsaksrikul<sup>1,2</sup>, Potjane Srimanote<sup>1,2</sup>, Onruedee Khantisitthiporn<sup>2,3</sup>, Oratai Supasorn<sup>1</sup>, Kittisak Suanpan<sup>1</sup>, Patthaya Rattanakomol<sup>1</sup>

<sup>1</sup>Graduate Program in Biomedical Sciences, Faculty of Allied Health Sciences, Thammasat Univ., Pathum Thani, 12120, Thailand, <sup>2</sup>Thammasat University Research Unit in Molecular Pathogenesis and Immunology of Infectious Diseases, Thammasat Univ., Pathum Thani, 12120, Thailand, <sup>3</sup>Department of Medical Technology, Faculty of Allied Health Sciences, Thammasat Univ., Pathum Thani, 12120, Thailand

WS01-08-O/P

### **Functional heterogeneity and clonal alterations of cytomegalovirus-specific T cell response during pregnancy**

○ Ayumi Taguchi<sup>1,2</sup>, Shuhei Sakakibara<sup>1</sup>, Fumi Misumi<sup>2</sup>, Shunsuke Teraguchi<sup>3</sup>, Takeshi Nagamatsu<sup>2,4</sup>, Mari Ichinose<sup>2</sup>, David Priest<sup>1</sup>, Janyerkye Tulyeu<sup>1</sup>, Jonas Nørskov Søndergaard<sup>1,5</sup>, Takayuki Iriyama<sup>2</sup>, Yutaka Osuga<sup>2</sup>, James Wing<sup>1,5</sup>

<sup>1</sup>WPI Immunology Frontier Research Center, Osaka University, <sup>2</sup>Department of Obstetrics and Gynecology, Graduate School of Medicine, The University of Tokyo, <sup>3</sup>Faculty of Data Science, Shiga University, <sup>4</sup>Department of Obstetrics and Gynecology, International University of Health and Wealth, <sup>5</sup>Center for Infectious Disease Education and Research, Osaka University

WS01-09-O/P

### Single-cell transcriptomics revealed the expansion of skin-homing lymphocytes in natural dengue infection one day before defervescence

○ Anunya Opasawatchai<sup>1,2,3,4</sup>, Jantarika Kumar Arora<sup>5</sup>, Tiraput Poonpanichakul<sup>6</sup>, Natnicha Jiravejchakul<sup>6</sup>, Waradon Sungnak<sup>3,4,6</sup>, Denfree Consortium, Oranart Matangkasombut<sup>7</sup>, Sarah A. Teichmann<sup>8</sup>, Ponpan Matangkasombut<sup>4,6</sup>, Varodom Charoensawan<sup>3,4,5</sup>

<sup>1</sup>Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences, Japan, <sup>2</sup>Department of Oral Microbiology, Faculty of Dentistry, Mahidol University, Thailand, <sup>3</sup>Integrative Computational Bioscience (ICBS) Center, Mahidol University, Thailand, <sup>4</sup>Systems Biology of Diseases Research Unit, Faculty of Science Mahidol University, Thailand, <sup>5</sup>Department of Biochemistry, Faculty of Science, Mahidol University, Thailand, <sup>6</sup>Department of Microbiology, Faculty of Science, Mahidol University, Thailand, <sup>7</sup>Department of Microbiology and Center of Excellence on Oral Microbiology and Immunology, Faculty of Dentistry, Chulalongkorn University, Thailand, <sup>8</sup>Wellcome Sanger Institute, Wellcome Trust Genome Campus, UK

WS01-10-P

### Analysis of type 2 immune response against tick skin infestation in mice

○ Maki Mizumura<sup>1,2</sup>, Tetsuro Kobayashi<sup>1</sup>, Kayoko Yamaji<sup>3</sup>, Hirotaka Kanuka<sup>3</sup>, Kazuyo Moro<sup>1,4,5</sup>

<sup>1</sup>Laboratory for Innate Immune systems, Center for Integrative Medical Sciences, RIKEN, <sup>2</sup>Department of Medical Life Science, Graduate School of Medial Life Science, Yokohama City University, <sup>3</sup>Department of Tropical Medicine, Jikei University School of Medicine, <sup>4</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>5</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC)

WS01-11-P

### Investigation of *Plasmodium* transcription factors as a druggable target

○ Rashmi Dash<sup>1,2</sup>, Hideo Negishi<sup>3,4</sup>, Michelle SJ Lee<sup>1,4</sup>, Ken J. Ishii<sup>3,4</sup>, Shiroh Iwanaga<sup>5</sup>, Cevayir Coban<sup>1,2,4</sup>

<sup>1</sup>Division of Malaria Immunology, Institute of Medical Science (IMSUT), University of Tokyo, <sup>2</sup>Graduate School of Frontier Science, The University of Tokyo, <sup>3</sup>Division of Vaccine Science, IMSUT, <sup>4</sup>International Vaccine Design Center, IMSUT, <sup>5</sup>Department of Protozoology, RIMD, Osaka University

WS01-12-O/P

### Temporal changes in gastrointestinal mucosal immune system during *Plasmodium* infection

○ Mariko Kamioka<sup>1,2</sup>, Julia Matsuo-Dapaah<sup>1,3</sup>, Michelle Sue Jann Lee<sup>1,4</sup>, Cevayir Coban<sup>1,3,4</sup>

<sup>1</sup>Division of Malaria Immunology, Department of Microbiology and Immunology, Institute of Medical Science, University of Tokyo (IMSUT), <sup>2</sup>JSPS Research Fellowship for Young Scientists, Japan Society for the Promotion of Science, <sup>3</sup>Graduate School of Medicine, The University of Tokyo, <sup>4</sup>International Vaccine Design Center, Institute of Medical Science, The University of Tokyo (IMSUT)

WS01-13-P

### Effects of malaria on bone marrow lymphopoietic niche

○ Michelle Sue Jann Lee<sup>1,2</sup>, Camila del Rosario Zorilla<sup>1</sup>, Julia Matsuo Dapaah<sup>1</sup>, Yoshiki Omatsu<sup>3,4</sup>, Takashi Nagasawa<sup>3,4</sup>, Ken J. Ishii<sup>2,5</sup>, Cevayir Coban<sup>1,2</sup>

<sup>1</sup>Division of Malaria Immunology, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>International Vaccine Design Center, The Institute of Medical Science, The University of Tokyo, <sup>3</sup>Laboratory of Stem Cell Biology and Developmental Immunology, WPI Immunology Frontier Research Center, Osaka University, <sup>4</sup>Laboratory of Stem Cell Biology and Developmental Immunology, Graduate School of Frontier Biosciences and Graduate School of Medicine, Osaka University, <sup>5</sup>Division of Vaccine Science, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo

WS01-14-O/P

### CD4+ T cells specific for the *Plasmodium falciparum* circumsporozoite protein form resident memory population in the liver and may directly kill liver stage parasites in vivo

○ Hannah Gabrielle Kelly<sup>1</sup>, Xin (Andy) Gao<sup>1</sup>, Patricia Carreira<sup>1</sup>, Ines Atmosukarto<sup>2</sup>, Mireille Lahoud<sup>3</sup>, Irene Caminschi<sup>3</sup>, Lynette Beattie<sup>4</sup>, Ian Cockburn<sup>1</sup>

<sup>1</sup>Department of Immunology and Infectious Disease, John Curtin School of Medical Research, The Australian National University, Canberra, ACT 2601, Australia, <sup>2</sup>Lipotek Pty Ltd, Canberra, ACT 2601, Australia, <sup>3</sup>Department of Biochemistry and Molecular Biology, Monash Biomedicine Discovery Institute, Monash University, VIC 3800, Australia, <sup>4</sup>Department of Microbiology and Immunology, Peter Doherty Institute for Infection and Immunity, Parkville, VIC 3010, Australia

WS01-15-P

### Transcriptomic analysis identified cell autonomous immunity genes in the olfactory bulb during experimental cerebral malaria

○ Julia Matsuo-Dapaah<sup>1,2</sup>, Michelle Sue Jann Lee<sup>1,3</sup>, Manabu Ozawa<sup>4</sup>, Masahiro Yamamoto<sup>5</sup>, Ken J Ishii<sup>3,6</sup>, Cevayir Coban<sup>1,2,3</sup>

<sup>1</sup>Division of Malaria Immunology, Institute of Medical Science, University of Tokyo, <sup>2</sup>Graduate School of Medicine, University of Tokyo, <sup>3</sup>International Vaccine Design Center, Institute of Medical Science, University of Tokyo, <sup>4</sup>Laboratory of Reproductive Systems Biology, Institute of Medical Science, University of Tokyo, <sup>5</sup>Department of Immunoparasitology, WPI Immunology Frontier Research Center, Osaka University, <sup>6</sup>Division of Vaccine Science, Institute of Medical Science, The University of Tokyo

WS01-16-O/P

### Microbial-ligand independent regulation of lymphopoiesis by NOD1

○ Chiaki Iwamura<sup>1,2</sup>, Toshinori Nakayama<sup>1</sup>, Alan Sher<sup>2</sup>, Dragana Jankovic<sup>2</sup>

<sup>1</sup>Chiba University, <sup>2</sup>National Institute of Health

WS01-17-P

### Induction of liver resident memory CD8<sup>+</sup> T cells and protection against liver stage malaria by mRNA contained lipid nanoparticles

○ Sayuri Nakamae<sup>1,2</sup>, Satoshi Miyagawa<sup>2,3</sup>, Koki Ogawa<sup>4</sup>, Jiun-Yu Jian<sup>2</sup>, Awet Alem Teklemichael<sup>2</sup>, Mayumi Taniguchi<sup>2</sup>, Tomonari Masuda<sup>4</sup>, Takeshi Annoura<sup>5</sup>, Katsuyuki Yui<sup>6</sup>, Kenji Hirayama<sup>7</sup>, Shigeru Kawakami<sup>4</sup>, Shusaku Mizukami<sup>2,7</sup>

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WS01-18-P

### Distinct T helper Cell Responses as the Defense Strategies of *Opisthorchis viverrini* infected BALB/c Mice and Golden Syrian Hamsters

○ Pattaraporn Srisai<sup>1,2</sup>, Amonrat Jumnainsong<sup>3</sup>, Sujittra Chaiyadet<sup>1,2</sup>, Chanvit Leelayuwat<sup>3</sup>, Sutas Suttiaprapa<sup>1,2</sup>, Prasert Saichua<sup>1,2</sup>

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WS01-19-O/P

### Unveiling *Opisthorchis viverrini* Tetraspanins: Key player in Extracellular Vesicle-Mediated Host-Parasite interaction

○ Sujittra Chaiyadet<sup>1</sup>, Wuttipong Phumrattanapapin<sup>2</sup>, Javier Sotillo<sup>3</sup>, Michael Smout<sup>4</sup>, Thewarach Laha<sup>2</sup>, Alex Loukas<sup>4</sup>

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WS01-20-P

### The Degradation of Human IgG by *Opisthorchis viverrini*

○ Prasert Saichua<sup>1,2</sup>, Mantana Panpoom<sup>1,2</sup>, Pattaraporn Srisai<sup>1,2</sup>, Amonrat Jumnainsong<sup>3</sup>, Sutas Suttiaprapa<sup>1,2</sup>, Banchob Sripa<sup>1,2</sup>

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WS01-21-P

### The age-related decline in Th2 immune response begins in mice at six months of age

○ Motoko Morimoto<sup>1</sup>, Wakako Ikeda-Ohtsubo<sup>2</sup>

<sup>1</sup>School of Food Industrial Sciences, Miyagi University, <sup>2</sup>Graduate School of Agricultural Sciences, Tohoku University

WS01-22-P

### New insights into the role of adiponectin during helminth infection

○ Siranart Jeerawattanawat<sup>1,2</sup>, Adithap Hansakon<sup>3</sup>, Sittiruk Roytrakul<sup>4</sup>, Pornpimon Angkasekwina<sup>2,5</sup>

<sup>1</sup>Graduate Program in Biomedical Sciences, Faculty of Allied Health Sciences, Thammasat University, Pathum Thani 12120 Thailand, <sup>2</sup>Department of Medical Technology, Faculty of Allied Health Sciences, Thammasat University, Pathum Thani 12120 Thailand, <sup>3</sup>Chulabhorn International College of Medicine, Thammasat University, Pathum Thani 12120 Thailand, <sup>4</sup>Functional Proteomics Technology Laboratory, National Science and Technology Development Agency, Pathum Thani 12120 Thailand, <sup>5</sup>Research Unit in Molecular Pathogenesis and Immunology of Infectious Diseases, Thammasat University, Pathum Thani 12120 Thailand.

WS01-23-P

### *Schistosoma mansoni* alleviates collagen-induced arthritis in an IL-5 dependent manner

○ Yoshio Osada, Kentaro Morita, Shoichi Shimizu

Dept. of Immunology and Parasitology, Univ. of Occupational and Environmental Health, Japan

WS01-24-P

### Induction of *Anisakis*-specific IgE dependent on commensal bacteria in stomach during gastric *Anisakis* infection

○ Chikako Shimokawa<sup>1</sup>, Tadashi Takeuchi<sup>2</sup>, Tamotsu Kato<sup>2</sup>, Hiromu Sugiyama<sup>1</sup>, Hiroshi Ohno<sup>2</sup>, Hajime Hisaeda<sup>1</sup>

<sup>1</sup>Department of Parasitology, National Institute of Infectious Diseases, <sup>2</sup>Laboratory for Intestinal Ecosystem, RIKEN Center for Integrative Medical Sciences

WS01-25-P

### ***Plasmodium berghei* ANKA infected C57BL/6N mice suffer from pathological lesions and lymphopenia in the intestine**

○ Tomoyo Taniguchi<sup>1,2,3,4</sup>, Momo Hasunuma<sup>3</sup>, Izumi Ikezawa<sup>2</sup>, Jun Saitoh<sup>2</sup>, Hiromu Toma<sup>1</sup>, Hiroshi Suzuki<sup>2</sup>, Hajime Hisaeda<sup>5</sup>, Hidehiro Kishimoto<sup>1</sup>

<sup>1</sup>Department of Immunology and Parasitology, Graduate School of Medicine, University of the Ryukyus, <sup>2</sup>Functional genomics, NRCPD, Obihiro University of Agriculture and Veterinary Medicine, <sup>3</sup>Department of Parasitology, Graduate School of Medicine, Gunma University, <sup>4</sup>Center for Medical Education, Graduate School of Medicine, Gunma University, <sup>5</sup>Department of Parasitology, NIID

## January 17

### WS02 Systemic autoimmune diseases

WS02-01-O/P

#### **Immunophenotypic Categorization: A New Approach to Systemic Immune-Mediated Diseases**

○ Shinji Izuka<sup>1</sup>, Toshihiko Komai<sup>1</sup>, Takahiro Itamiya<sup>1</sup>, Mineto Ota<sup>1,2</sup>, Saeko Yamada<sup>1</sup>, Yasuo Nagafuchi<sup>1,2</sup>, Hirofumi Shoda<sup>1</sup>, Kosuke Matsuki<sup>3</sup>, Kazuhiko Yamamoto<sup>4</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, Japan, <sup>3</sup>Research Division, Chugai Pharmaceutical Co., Ltd., Yokohama, Kanagawa, Japan., <sup>4</sup>Laboratory for Autoimmune Diseases, Center for Integrative Medical Sciences, the Institute of Physical and Chemical Research (RIKEN), Japan

WS02-02-P

#### **Precision Medicine Advancements in Systemic Lupus Erythematosus: Unveiling Disease Heterogeneity through Gene Modules and Advanced Machine Learning**

○ Rifaldy Fajar, Sahnaz Vivinda Putri, Asfirani Hasan Umarullah  
Computational Biology and Medicine Laboratory, Yogyakarta State University, Indonesia

WS02-03-P

#### **Lack of MASP-1 results in delayed onset of renal dysfunction and prolonged survival in lupus-prone MRL/*lpr* mice**

○ Takeshi Machida, Hiroto Monoe, Yumi Ishida, Teizo Fujita, Hideharu Sekine  
Department of Immunology, Fukushima Medical University

WS02-04-O/P

#### **Pathogenetic role of IFN $\gamma$ producing CD4<sup>+</sup>T cells in lupus model mice induced by TLR7 agonist imiquimod**

○ Reona Tanimura, Yuya Kondo, Ryota Sato, Hiromitsu Asashima, Haruka Miki, Hiroto Tsuboi, Takayuki Sumida, Isao Matsumoto  
Department of Rheumatology, Institute of Medicine, University of Tsukuba

WS02-05-P

#### **Pathogenic relevance of transcription factor T-bet in lupus model mice induced by Toll-like receptor 7 agonist imiquimod**

○ Ryota Sato, Yuya Kondo, Reona Tanimura, Hiromitsu Asashima, Haruka Miki, Hiroto Tsuboi, Isao Matsumoto  
Department of Rheumatology, Institute of Medicine, University of Tsukuba

WS02-06-O/P

#### **Identification of a novel age-associated CD4<sup>+</sup> T cell subset involved in the pathogenesis of systemic lupus erythematosus**

○ Manaka Goto<sup>1</sup>, Hideyuki Takahashi<sup>1</sup>, Ryochi Yoshida<sup>1</sup>, Takahiro Itamiya<sup>1,2</sup>, Masahiro Nakano<sup>3,4</sup>, Kazuyoshi Ishigaki<sup>3</sup>, Mineto Ota<sup>1</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, <sup>3</sup>Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences, Yokohama, Kanagawa, Japan, <sup>4</sup>Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences, Yokohama, Kanagawa, Japan

WS02-07-P

#### **NRP-1<sup>+</sup> helper T cells promote the expansion of CD11c<sup>+</sup> B cells and orchestrate IgG antibody-mediated autoimmune diseases**

○ Eiichiro Amano<sup>1,2</sup>, Ben JE Raveney<sup>1</sup>, Takashi Yamamura<sup>1</sup>, Shinji Oki<sup>1</sup>

<sup>1</sup>Department of Immunology, National Institute of Neuroscience, National Center of Neurology and Psychiatry, <sup>2</sup>Tokyo Medical and Dental University, Department of Neurology and Neurological Science



WS02-08-P

### **Analysis of the relationship between changes in the gut microbiota and the production of autoantibodies**

○ Kunihiro Hayakawa, Maki Fujishiro

Institute for Environmental and Gender-Specific Medicine, Juntendo University Graduate School of Medicine

WS02-09-P

### **Human umbilical cord mesenchymal stem cells dose-dependently improve lupus nephritis in a mouse model**

○ Shogo Matsuda, Takuya Kotani, Tohru Takeuchi

Division of Rheumatology, Osaka Medical and Pharmaceutical University

WS02-10-P

### **Inhibitory anti-TLR7 ameliorates autoimmune diseases in various mouse models**

○ Ryutaro Fukui<sup>1</sup>, Yusuke Murakami<sup>1,2</sup>, Reika Tanaka<sup>1</sup>, Atsuo Kanno<sup>1</sup>, Yuji Motoi<sup>1</sup>, Kensuke Miyake<sup>1</sup>

<sup>1</sup>Division of Innate Immunity, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>Faculty of Pharmacy, Department of Pharmaceutical Sciences & Research Institute of Pharmaceutical Sciences, Musashino University

WS02-11-O/P

### **Analysis of patrolling monocytes that drive lupus nephritis**

○ Reika Tanaka<sup>1</sup>, Yusuke Murakami<sup>1,2</sup>, Ryutaro Fukui<sup>1</sup>, Shigeru Kakuta<sup>3</sup>, Kensuke Miyake<sup>1</sup>

<sup>1</sup>Division of Innate Immunity, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>Faculty of Pharmacy, Department of Pharmaceutical Sciences & Research Institute of Pharmaceutical Sciences, Musashino University, <sup>3</sup>Laboratory of Biomedical Science, Graduate School of Agricultural and Life Sciences, The University of Tokyo

WS02-12-P

### **Role of the interaction of CD72 with C1q in the regulation of B cell responses to apoptotic cells in SLE**

○ Takahiro Tsuneshige<sup>1,2,3</sup>, Chiuru Akatsu<sup>2</sup>, Hideharu Sekine<sup>4</sup>, Nobutoshi Ito<sup>2</sup>, Takeshi Tsubata<sup>1,2,3</sup>

<sup>1</sup>Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University, <sup>2</sup>Department of Structural Biology, Medical Research Institute, Tokyo Medical and Dental University, <sup>3</sup>Department of Pathology, Nihon University School of Dentistry, <sup>4</sup>Department of Immunology, Fukushima Medical University School of Medicine

WS02-13-O/P

### **The COMMD3/8 complex drives plasmablast differentiation of age-associated B cells in lupus**

○ Taiichiro Shirai<sup>1,2</sup>, Kentaro Kuzuya<sup>1</sup>, Kazuhiro Suzuki<sup>1,2,3</sup>

<sup>1</sup>Laboratory of Immune Response Dynamics, Immunology Frontier Research Center, Osaka University, Japan, <sup>2</sup>Department of Immune Response Dynamics, Research Institute for Microbial Diseases, Osaka University, Japan, <sup>3</sup>Center for Infectious Disease Education and Research, Osaka University, Japan

WS02-14-P

### **Pathophysiology of a mouse model of fulminant pneumonitis with increased anti-MDA5 antibodies**

○ Ayae Tanaka<sup>1</sup>, Takayoshi Owada<sup>2</sup>, Nobuhide Tsuruoka<sup>3</sup>, Toshibumi Taniguchi<sup>4</sup>, Hirokuni Hirata<sup>2</sup>, Kazuhiro Kurasawa<sup>1</sup>, Kei Ikeda<sup>1</sup>, Masafumi Arima<sup>1</sup>

<sup>1</sup>Department of Rheumatology, Dokkyo Medical University School of Medicine, <sup>2</sup>Department of Respiratory Medicine and Clinical Immunology, Dokkyo Medical University Saitama Medical Center, <sup>3</sup>Department of Reproductive Medicine, Graduate School of Medicine, Chiba University, <sup>4</sup>Department of Infectious Diseases Chiba University Hospital

WS02-15-O/P

### **Single-cell multi-omics analysis identifies two distinct phenotypes of newly-onset MPO-ANCA associated vasculitis**

○ Masayuki Nishide<sup>1,2,3</sup>, Masashi Narazaki<sup>1,3</sup>, Atsushi Kumanogoh<sup>1,2</sup>

<sup>1</sup>Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine, <sup>2</sup>Department of Immunopathology, World Premier International Research Center Initiative (WPI), Immunology Frontier Research Center (IFReC), Osaka University, <sup>3</sup>Department of Advanced Clinical and Translational Immunology, Osaka University Graduate School of Medicine

WS02-16-O/P

### **Immunological signature shared by Adult-onset Still's disease and other autoinflammatory diseases revealed by transcriptome analysis**

○ Ikuo Takazawa<sup>1</sup>, Haruka Tsuchiya<sup>1</sup>, Takahiro Itamiya<sup>1,2</sup>, Harumi Shirai<sup>1</sup>, Yumi Tsuchida<sup>1</sup>, Yasuo Nagafuchi<sup>1,2</sup>, Hirofumi Shoda<sup>1</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo

WS02-17-P

### **CD153<sup>+</sup> CD4<sup>+</sup> T cells and CD30<sup>+</sup> cells exacerbate the autoimmune pathology in salivary glands of Sjögren's syndrome**

○ Kunihiro Otsuka<sup>1,2</sup>, Hiroyuki Kondo<sup>1</sup>, Shin-ichi Tsukumo<sup>1</sup>, Aya Ushio<sup>2</sup>, Naozumi Ishimaru<sup>2</sup>, Koji Yasutomo<sup>1</sup>

<sup>1</sup>Department of Immunology and Parasitology, Tokushima University Graduate School of Biomedical Sciences, <sup>2</sup>Department of Oral Molecular Pathology, Tokushima University Graduate School of Biomedical Sciences

WS02-18-P

### **Pathological analysis of nasal lesions with aging in murine models of Sjögren's syndrome**

○ Kai Tamura<sup>1</sup>, Yuki Kawahito<sup>1</sup>, Mami Sato<sup>2</sup>, Kunihiro Otsuka<sup>2</sup>, Aya Ushio<sup>2</sup>, Takaaki Tsunematsu<sup>2</sup>, Naozumi Ishimaru<sup>2</sup>

<sup>1</sup>Department of Oral Molecular pathology, Faculty of Dentistry, Tokushima University, <sup>2</sup>Department of Oral Molecular pathology, Graduate school of Biomedical Sciences, Tokushima University

WS02-19-P

### **The Relation between the Reduction of Mucin 19 and the Onset of Sjögren's Syndrome in a Mouse Model**

○ Yuki Kawahito<sup>1</sup>, Kai Tamura<sup>1</sup>, Mami Sato<sup>2</sup>, Kunihiro Otsuka<sup>2</sup>, Aya Ushio<sup>2</sup>, Takaaki Tsunematsu<sup>2</sup>, Naozumi Ishimaru<sup>2</sup>

<sup>1</sup>Department of Oral Molecular Pathology, Faculty of Dentistry, Tokushima University, <sup>2</sup>Department of Oral Molecular Pathology, Graduate School of Biomedical Sciences, Tokushima University

WS02-20-P

### **Analysis of the suppression mechanism for activated T cells via co-inhibitory receptors in Sjögren's syndrome**

○ Ruka Nagao<sup>1</sup>, Akiko Yamamoto<sup>2</sup>, Aya Ushio<sup>1</sup>, Kunihiro Otsuka<sup>1</sup>, Hiroaki Tawara<sup>1</sup>, Shigefumi Matsuzawa<sup>3</sup>, Kai Tamura<sup>4</sup>, Yuhki Kawahito<sup>4</sup>, Takaaki Tsunematsu<sup>1</sup>, Naozumi Ishimaru<sup>1</sup>

<sup>1</sup>Graduate School of Biomedical Sciences, Department of Oral Molecular Pathology, Tokushima Univ., <sup>2</sup>Department of Pathology, Nihon Univ. School of Dentistry, <sup>3</sup>Oral and Maxillofacial Radiology, Division of Maxillofacial Diagnostic and Surgical Sciences, Faculty of Dental Science, Kyushu Univ., <sup>4</sup>Department of Dentistry, Faculty of Dentistry, Tokushima Univ.

WS02-21-P

### **Functional analysis of autoreactive T cell and autoantibody participated in the pathogenesis of Sjögren's syndrome**

○ Mana Iizuka<sup>1</sup>, Satoru Takahashi<sup>2,3</sup>, Isao Matsumoto<sup>4</sup>, Takayuki Sumida<sup>4</sup>, Akihiko Yoshimura<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Keio University School of Medicine, <sup>2</sup>Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba, <sup>3</sup>Laboratory Animal Resource Center, University of Tsukuba, <sup>4</sup>Department of Internal Medicine, Faculty of Medicine, University of Tsukuba

WS02-22-O/P

### **Signaling pathways via TLR4 are involved in elevated expression of BAFF receptor, BR3, in peripheral monocytes of patients with primary Sjögren's syndrome**

○ Keiko Yoshimoto, Yumi Ikeda, Katsuya Suzuki, Hiroyuki Fukui, Kotaro Matsumoto, Masaru Takeshita, Tsutomu Takeuchi, Yuko Kaneko

Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine

## January 17

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### **WS03 Macrophages and other innate immune cells in homeostasis**

WS03-01-O/P

#### **MAFB in macrophages suppress inflammation via ALOX15 in Acute Kidney Injury**

○ Maho Kanai<sup>1</sup>, Teppei Nishino<sup>1</sup>, Akari Kimura<sup>1</sup>, Toshiaki Usui<sup>1,2</sup>, Naoki Morito<sup>1,2</sup>, Michito Hamada<sup>1</sup>, Satoru Takahashi<sup>1</sup>

<sup>1</sup>Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba, <sup>2</sup>Department of Nephrology, Faculty of Medicine, University of Tsukuba

WS03-02-O/P

#### **Clathrin heavy chain regulates NLRP3 inflammasome formation via endocytosis in macrophages**

○ Hung Hiep Huynh<sup>1</sup>, Fumiyuki Sasaki<sup>1</sup>, Masumi Shimizu<sup>1</sup>, Akihiko Yoshimura<sup>2</sup>, Rimpei Morita<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2</sup>Keio University School of Medicine

WS03-03-P

#### **Gelsolin negatively regulates NLRP3 inflammasome activation by stabilizing mitochondria**

○ Rimpei Morita<sup>1</sup>, Jiyeon Lee<sup>2</sup>, Masumi Shimizu<sup>1</sup>, Fumiyuki Sasaki<sup>1</sup>, Akihiko Yoshimura<sup>3</sup>, Lark Kyun Kim<sup>2</sup>

<sup>1</sup>Nippon Medical School, <sup>2</sup>Yonsei University College of Medicine, <sup>3</sup>Keio University School of Medicine

WS03-04-P

#### **Gelsolin from macrophages is required for fibroblast migration during skin wound healing**

○ Eri Toyohara<sup>1,2</sup>, Fumiyuki Sasaki<sup>2</sup>, Teruyuki Dohi<sup>1</sup>, Rei Ogawa<sup>1</sup>, Rimpei Morita<sup>2</sup>

<sup>1</sup>Department of Plastic, Reconstructive and Regenerative Surgery, Nippon Medical School, Tokyo, Japan, <sup>2</sup>Department of Microbiology and Immunology, Nippon Medical School, Tokyo, Japan

WS03-05-O/P

### **FoxO1 regulates the number of basophils in the peripheral tissues and basophil-dependent allergic inflammation**

○ Junya Ito<sup>1</sup>, Kensuke Miyake<sup>1</sup>, Kazufusa Takahashi<sup>1</sup>, Shigeyuki Shichino<sup>2</sup>, Hajime Karasuyama<sup>1</sup>

<sup>1</sup>Inflammation, Infection and Immunity Laboratory, Advanced Research Institute, Tokyo Medical and Dental University, <sup>2</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute of Biomedical Sciences, Tokyo University of Science

WS03-06-P

### **Roles of C/EBP $\alpha$ , GATA2, TGF- $\beta$ -signaling, and epigenetic regulation in expression of basophil-specific protease genes, *Mcpt8* and *Mcpt11***

○ Ryotaro Tojima, Takahiro Arai, Tomoka Ito, Naoto Ito, Kazumi Kasakura, Kazuki Nagata, Chiharu Nishiyama

Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science

WS03-07-O/P

### **CD300a immunoreceptor exacerbates acute kidney injury and fibrosis after renal ischemia and reperfusion in mice**

○ Hitoshi Koizumi<sup>1,2</sup>, Chigusa Nakahashi-Oda<sup>1,4</sup>, Kazuko Shibuya<sup>1,4</sup>, Akira Shibuya<sup>1,3,4</sup>

<sup>1</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, <sup>2</sup>Doctoral Program in Graduate School of Comprehensive Human Sciences, University of Tsukuba, <sup>3</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, <sup>4</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS03-08-O/P

### **Sphingosine-1-phosphate lyase SGPL1 is required for NLRP3 inflammasome activation via the dynamic organization of endoplasmic reticulum and microtubules**

○ Furniyuki Sasaki, Masumi Shimizu, Rimpei Morita

Department of Microbiology and Immunology, Nippon Medical School, Tokyo, Japan

WS03-09-P

### **“Immunosuppressive” Cannabinoid CB2 receptors take “Immunoactive” role in high-fat diet evoked systemic inflammatory response**

○ Chihiro Nozaki<sup>1</sup>, Haruka Hosoki<sup>2</sup>, Andreas Zimmer<sup>3</sup>

<sup>1</sup>Waseda University, Faculty of Science and Engineering, Global Center for Science and Engineering, <sup>2</sup>Waseda University, Faculty of Science and Engineering, Department of Advanced Science and Engineering, <sup>3</sup>University of Bonn, Institute of Molecular Psychiatry

WS03-10-O/P

### **The onset of parturition is delayed in fetal macrophage-deficient mice**

○ Sunao Matsuzaka, Haruta Mogami, Yosuke Kawamura, Yu Matsuzaka, Eriko Yasuda, Asako Inohaya, Masahito Takakura, Yoshitsugu Chigusa, Masaki Mandai

Department of Gynecology and Obstetrics, Kyoto University Graduate School of Medicine

WS03-11-O/P

### **CD300a immunoreceptor exacerbates heart injury and adverse remodeling after myocardial infarction and reperfusion in mice**

○ Nanako Nishiyama<sup>1</sup>, Chigusa Nakahashi-Oda<sup>1,3</sup>, Akira Shibuya<sup>1,2,3</sup>, Kazuko Shibuya<sup>1,3</sup>

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WS03-12-O/P

### **A stress sensor IRE1 $\alpha$ is required for bacterial exotoxin-induced inflammasome activation in tissue-resident macrophages**

○ Izumi Sasaki<sup>1</sup>, Yuri Fukuda-Ohta<sup>1</sup>, Shuhei Morita<sup>2</sup>, Daisuke Okuzaki<sup>3</sup>, Takashi Kato<sup>1</sup>, Koichi Furukawa<sup>4</sup>, Tsuneyasu Kaisho<sup>1</sup>

<sup>1</sup>Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Wakayama, Japan, <sup>2</sup>First Department of Medicine, Wakayama Medical University, Wakayama, Japan, <sup>3</sup>Genome Information Research Center, Research Institute for Microbial Diseases, Osaka University, Suita, Japan, <sup>4</sup>Department of Lifelong Sports and Health Sciences, Chubu University College of Life and Health Sciences, Kasugai, Japan

WS03-13-P

### **Proteasome dysfunction in adipocytes induces lipodystrophy and autoinflammation**

○ Rinna Koga, Junko Morimoto, Kunihiro Otsuka, Koji Yasutomo

Department of Immunology and Parasitology, Graduate School of Medicine, Tokushima University

WS03-14-P

### **Murine model identifies tropomyosin as IgE cross-reactive protein between house dust mite and coho salmon that possibly promotes the development of the related allergy**

○ Ayako Kaitani<sup>1</sup>, Risa Yamamoto<sup>1</sup>, Kumi Izawa<sup>1</sup>, Tomoaki Ando<sup>1</sup>, Atsushi Tanabe<sup>1</sup>, Hiromichi Yamada<sup>1,2</sup>, Shino Uchida<sup>1</sup>, Akihisa Yoshikawa<sup>1,3</sup>, Akie Maehara<sup>1</sup>, Nobuhiro Nakano<sup>1</sup>, Ko Okumura<sup>1</sup>, Jiro Kitaura<sup>1</sup>

<sup>1</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2</sup>Department of Pediatrics and Adolescent Medicine, Juntendo University Graduate School of Medicine, <sup>3</sup>Department of Otorhinolaryngology, Juntendo University Graduate School of Medicine

WS03-15-P

### A DNA Repair Enzyme O<sup>6</sup>-Methylguanine DNA Methyltransferase (MGMT) Regulates Inflammatory Response, Autophagy and Innate Immune Memory in Macrophages

○ Palaga Tanapat<sup>1,2</sup>, Salisa Benjaskulluecha<sup>1,2,3</sup>, MdFazlul Haque<sup>1,2</sup>, Benjawan Wongprom<sup>1,2</sup>, Thitiporn Pattarakankul<sup>1,2</sup>, Kittitach Sri-ngern-ngam<sup>1,2</sup>, Atsadang Boonmee<sup>1,2</sup>

<sup>1</sup>Department of Microbiology, Faculty of Science, Chulalongkorn University, <sup>2</sup>Center of Excellence in Immunology and Immune-mediated Diseases, Chulalongkorn University, <sup>3</sup>Interdisciplinary Graduate Program in Medical Microbiology, Graduate School, Chulalongkorn University

WS03-16-P

### Glycolaldehyde derived advanced glycation end products suppress STING signaling in macrophage

○ Takashi Nishinaka<sup>1</sup>, Omer Faruk Hatipoglu<sup>1</sup>, Hidenori Wake<sup>1</sup>, Masahiro Watanabe<sup>2</sup>, Takao Toyomura<sup>2</sup>, Shuji Mori<sup>2</sup>, Masahiro Nishibori<sup>3</sup>, Hideo Takahashi<sup>1</sup>

<sup>1</sup>Department of Pharmacology, Kindai University, Faculty of Medicine, <sup>2</sup>Department of Pharmacology, School of Pharmacy, Shujitsu University, <sup>3</sup>Department of Translational Research & Drug Development, Faculty of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University

WS03-17-P

### The anti-TLR4 mAb Sa15-21 enhance the response of TLR ligands

○ Bristy Basak, Sajid Iftekhhar Chowdhury, Masanori Inui, Tatsuya Yamazaki, Susumu Tomono, Sachiko Akashi Takamura

Aichi Medical University, Microbiology and Immunology

WS03-18-P

### The effects of diazinon on cellular metabolism in macrophages

○ Nanami Yoshida, Miyoko Matsushima, Nodoka Shimasaki, Hinata Taniguchi, Hina Kawashima, Sayaka Takagi, Fuzuki Hayashi, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine, Tokai National Higher Education and Research System

WS03-19-P

### Functional analysis of Nitrated tryptophan proteins in M1-polarized macrophages

○ Eri Shimura<sup>1</sup>, Ayako Shigenaga<sup>2</sup>, Aiki Murayama<sup>1</sup>, Tomoya Nakagawa<sup>1</sup>, Ryo Ishihara<sup>1</sup>, Takeshi Baba<sup>1</sup>, Fumiyuki Yamakura<sup>3</sup>

<sup>1</sup>Faculty of Medicine, Juntendo University, <sup>2</sup>Institute of Health Sports Science & Medicine, Juntendo University, <sup>3</sup>Faculty of Health Science, Juntendo University

## January 17

### WS04 Innate immunity

WS04-01-O/P

### Microbiome ssRNA as an environmental cue to activate TLR13-dependent tissue-protective programs in CD5L/AIM<sup>hi</sup> hepatic macrophages

○ Ryota Sato<sup>1</sup>, Kaiwen Liu<sup>1</sup>, Takuma Shibata<sup>1</sup>, Ryutaro Fukui<sup>1</sup>, Katsuaki Hoshino<sup>2</sup>, Toshikazu Kondo<sup>3</sup>, Toru Miyazaki<sup>4</sup>, Tsuneyasu Kaisho<sup>5</sup>, Kensuke Miyake<sup>1</sup>

<sup>1</sup>Division of Innate Immunity, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>Department of Immunology, Faculty of Medicine, Kagawa University, <sup>3</sup>Department of Forensic, Wakayama Medical University, <sup>4</sup>The Institute for AIM Medicine, <sup>5</sup>Department of Immunology, Institute of Advanced Medicine

WS04-02-O/P

### Fine tuning of TLR9 signaling triggered by CpG DNA-CXCL14 complex is mediated by Immunoglobulin superfamily proteins and scavenger receptors

○ Kosuke Tanegashima<sup>1</sup>, Risa Saito<sup>1,2</sup>, Riku Takahashi<sup>1,2</sup>, Manaka Hasebe<sup>1,3</sup>, Takahiko Hara<sup>1,2,3</sup>

<sup>1</sup>Stem cell project, Tokyo Metropolitan Institute of Medical Science, <sup>2</sup>Grad. Sch. of Tokyo Medical and Dental Univ., <sup>3</sup>Grad. Sch. Tokyo Metropol. Univ.

WS04-03-O/P

### Nucleolus dysfunction-mediated DNA leaking forms innate immune priming under nutrition starvation and ribosomal diseases

○ Ken Takashima, Hiroyuki Oshiumi

Department of Immunology, Graduate School of Medical Sciences, Faculty of Life Science, Kumamoto University

WS04-04-O/P

### Human Dectin-1 is a ligand of CLEC-2 and regulates lymphatic development

○ Taiki Ito<sup>1,2</sup>, Shojiro Haji<sup>3</sup>, Masamichi Nagae<sup>1,2</sup>, Sho Yamasaki<sup>1,2</sup>

<sup>1</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, <sup>2</sup>Immunology Frontier Research Center (IFReC), Osaka University, <sup>3</sup>Department of Medicine and Bioregulatory Science, Graduate School of Medical Sciences, Kyushu University

WS04-05-O/P

### **TAK1-binding proteins (TAB) 2 and TAB3 are dispensable for TAK1 activation but redundantly required for TLR-induced cytokine production in macrophages**

○ Giichi Takaesu<sup>1,2,3</sup>, Tanveer Ali<sup>2</sup>, Osamu Takeuchi<sup>4</sup>, Goro Matsuzaki<sup>1,2,3</sup>

<sup>1</sup>Trop. Biosp. Res. Ctr., Univ. Ryukyus, <sup>2</sup>Dept. Host Defense, Grad. Sch. Med., Univ. Ryukyus, <sup>3</sup>Adv. Med. Res. Ctr, Univ. Ryukyus., <sup>4</sup>Dept. Med. Chem., Grad. Sch. Med., Kyoto Univ.

WS04-06-O/P

### **Distinct immune cell dynamics correlate with the immunogenicity and reactogenicity of COVID-19 vaccines**

○ Takayuki Matsumura, Tomohiro Takano, Ryutaro Kotaki, Yu Adachi, Saya Moriyama, Taishi Onodera, Kazutaka Terahara, Masanori Isogawa, Yoshimasa Takahashi

Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases

WS04-07-O/P

### **The behavioral duality of monocytes depends on the severity of inflammation-A new regulatory mechanism of inflammation by monocytes**

○ Masashi Kanayama, Megumi Akiyama, Toshiaki Ohteki

Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental Univ.

WS04-08-O/P

### **Immune checkpoint molecule Tim3 regulates microglial function and the development of Alzheimer's disease pathology**

○ Kimitoshi Kimura<sup>1,2,3,4</sup>, Ayshwarya Subramanian<sup>1,2,3,5</sup>, Zhuoran Yin<sup>1,2,3</sup>, Ahad Khalilnezhad<sup>1,2,3</sup>, Yufan Wu<sup>1,2,3,5</sup>, Danyang He<sup>1,2,3</sup>, Dennis J. Selkoe<sup>1,2,3</sup>, Aviv Regev<sup>5</sup>, Mario L. Suvà<sup>5,6</sup>, Oleg Butovsky<sup>1,2,3</sup>, Vijay K. Kuchroo<sup>1,2,3,5</sup>

<sup>1</sup>Evergrande Center for Immunologic Diseases, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA., <sup>2</sup>Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA., <sup>3</sup>Department of Neurology, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA., <sup>4</sup>Department of Neurology, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>5</sup>Broad Institute of MIT and Harvard, Cambridge, MA, USA., <sup>6</sup>Department of Pathology and Center for Cancer Research, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA.

WS04-09-P

### **The cytokine component Epstein-Barr virus induced 3 (EBI3) promotes systemic inflammation induced by TLR7 ligand**

○ Masanori Iseki<sup>1</sup>, Yuma Sakamoto<sup>1</sup>, Daiki Takezaki<sup>1,2</sup>, Shin Morizane<sup>2</sup>, Tomoyuki Mukai<sup>1</sup>

<sup>1</sup>Department of Immunology and Molecular Genetics, Kawasaki Medical School, <sup>2</sup>Department of Dermatology, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University

WS04-10-P

### **Newly identified WDFY4 is one of the promoting molecules for TLR7-induced lethal inflammation**

○ Yusuke Murakami<sup>1,2</sup>, Ryutaro Fukui<sup>2</sup>, Kiyoshi Yamaguchi<sup>3</sup>, Reika Tanaka<sup>2</sup>, Tomoya Narita<sup>1</sup>, Yoichi Furukawa<sup>3</sup>, Kensuke Miyake<sup>2</sup>, Keiki Kumano<sup>1</sup>

<sup>1</sup>Faculty of Pharmacy, Department of Pharmaceutical Sciences & Research Institute of Pharmaceutical Sciences, Musashino University,

<sup>2</sup>Division of Innate Immunity, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo,

<sup>3</sup>Division of Clinical Genome Research, Advanced Clinical Research Center, The Institute of Medical Science, The University of Tokyo

WS04-11-P

### **Using endotoxin preconditioning and MyD88-independent signaling to ameliorate lethal sepsis**

○ Takeshi Ono<sup>1</sup>, Bradley M. Kearney<sup>1,2</sup>, Yoko Yamaguchi<sup>1</sup>, Manabu Kinoshita<sup>1</sup>

<sup>1</sup>National Defense Medical College, <sup>2</sup>US Army Japan Engineer and Scientist Exchange Program

WS04-12-P

### **Involvement of a host factor in the innate immune response to HBV in hepatocytes**

○ Narumi Kawasaki<sup>1</sup>, Kazuhisa Murai<sup>1</sup>, Atsuya Ishida<sup>1</sup>, Ying Wang<sup>1</sup>, Rio Yasukawa<sup>1</sup>, Masao Honda<sup>1,2</sup>

<sup>1</sup>Department of Clinical Laboratory Medicine, Kanazawa University Graduate School of Health Medicine, Kanazawa, Japan, <sup>2</sup>Department of Gastroenterology, Kanazawa University Graduate School of Medicine, Kanazawa, Japan.

WS04-13-P

### **Exploring circular RNAs involved in inflammatory responses**

○ Shuya Hiroki, Daisuke Ori, Taro Kawai

Laboratory of Molecular Immunobiology, Graduate School of Science and Technology, Nara Institute of Science and Technology (NAIST)

WS04-14-P

### **Identification of RPL15 60S ribosomal protein as a novel topotecan target protein that correlates with DAMP secretion and antitumor immune activation**

○ Yuichi Kitai, Shunsuke Yamada, Tadashi Matsuda

Pharmaceutical Sciences, Hokkaido University

WS04-15-P

### **Monosodium urate crystals directly induce the inflammatory activation of human endothelial cells in hyperuricemia**

○ Motokazu Tsuneto<sup>1</sup>, Yuka Katsukura<sup>2</sup>, Naruomi Yamada<sup>2</sup>, Akika Fukawa<sup>2</sup>, Ichiro Hisatome<sup>3</sup>

<sup>1</sup>Division of regenerative medicine and therapeutics, Tottori university, <sup>2</sup>Food microbiology and function research laboratories, R&D division, Meiji Co.,Ltd, <sup>3</sup>Yonago medical center

WS04-16-P

### **Dasatinib suppresses particulate-induced pyroptosis and acute lung inflammation**

○ Naoki Takemura<sup>1</sup>, Yixi Pan<sup>1</sup>, Tatsuya Saitoh<sup>1,2,3</sup>

<sup>1</sup>Graduate School of Pharmaceutical Sciences, Osaka University, <sup>2</sup>Global Center for Medical Engineering and Informatics, Osaka University, <sup>3</sup>Center for Infectious Diseases for Education and Research (CiDER), Osaka University

WS04-17-P

### **Unveiling immune dynamics behind carboxyl vinyl polymer adjuvanticity for nasal vaccine**

○ Eita Sasaki<sup>1</sup>, Hideki Asanuma<sup>2</sup>, Takuo Mizukami<sup>3</sup>, Hideki Hasegawa<sup>2</sup>, Isao Hamaguchi<sup>3</sup>, Takashi Miyazaki<sup>4</sup>, Yoshimasa Takahashi<sup>1</sup>

<sup>1</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, <sup>2</sup>Center for Influenza and Respiratory Virus Research, National Institute of Infectious Diseases, <sup>3</sup>Research Center for Biological Products in the Next Generation, National Institute of Infectious Diseases, <sup>4</sup>Business Management Department, Toko Yakuhin Kogyo Co., Ltd.

WS04-18-P

### **NOD1 suppresses ER stress-induced inflammation by the decreased protein level of ASK1**

○ Yoshitaka Kimura<sup>1</sup>, Miyako Kimura<sup>2,3</sup>, Noriko Miura<sup>4</sup>, Yusuke Yoshino<sup>1</sup>, Hajime Kono<sup>2</sup>

<sup>1</sup>Department of Microbiology and Immunology, Teikyo University of Medicine, <sup>2</sup>Department of Internal Medicine, Teikyo University of Medicine, <sup>3</sup>Division of Regenerative Therapy, Graduate School of Medicine, Juntendo University, <sup>4</sup>Laboratory for Immunology of Microbial Products, School of Pharmacy, Tokyo University of Pharmacy and Life Science

WS04-19-P

### **The role of SAGA complex in the regulation of transcriptional activation of MHC class I genes**

○ Bingyu Ren<sup>1</sup>, Noyuri Zama<sup>1</sup>, Ryota Ouda<sup>1</sup>, Xin Sun<sup>1</sup>, Tsutomu Tanaka<sup>1</sup>, Koichi S Kobayashi<sup>1,2,3</sup>

<sup>1</sup>Department of Immunology, Hokkaido University Graduate School of Medicine, <sup>2</sup>Department of Microbial Pathogenesis and Immunology, <sup>3</sup>Hokkaido University Institute for Vaccine Research and Development

WS04-20-P

### **Role of Nuclear factor- $\kappa$ B in NLRC5-mediated MHC class I gene expression**

○ Zufang Wu<sup>1</sup>, Ryota Ouda<sup>1</sup>, Xin Sun<sup>1</sup>, Tsutomu Tanaka<sup>1</sup>, Koichi S Kobayashi<sup>1,2,3</sup>

<sup>1</sup>Department of Immunology, Hokkaido University Graduate School of Medicine, <sup>2</sup>Department of Microbial Pathogenesis and Immunology, <sup>3</sup>Hokkaido University Institute for Vaccine Research and Development

WS04-21-P

### **Proprotein convertase FURIN is involved in the activation process of group 2 innate lymphoid cells**

○ Takuya Yashiro<sup>1</sup>, Kazuyo Moro<sup>1,2</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>2</sup>Laboratory for Innate Immune Systems, RIKEN IMS

WS04-22-P

### **Memory-phenotype CD4<sup>+</sup> T lymphocytes rapidly accumulate in ischemic organs and exacerbate tissue injury in an innate manner**

○ Kosuke Sato<sup>1,2</sup>, Akihisa Kawajiri<sup>1</sup>, Jing Li<sup>1</sup>, Ziyang Yang<sup>1</sup>, Shunichi Tayama<sup>1</sup>, Kenshiro Matsuda<sup>3</sup>, Chigusa Oda<sup>3</sup>, Akira Shibuya<sup>3</sup>, Motoshi Wada<sup>2</sup>, Naoto Ishii<sup>1</sup>, Takeshi Kawabe<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Japan, <sup>2</sup>Department of Pediatric Surgery, Tohoku University Graduate School of Medicine, Sendai, Japan, <sup>3</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

WS04-23-P

### **Downregulation of innate immune cells in postmenopausal osteoporosis: A novel osteoimmunological perspective**

○ Yasuyuki Negishi<sup>1,2</sup>, Munehiro Naruo<sup>1,3</sup>, Lilika Higuchi<sup>2</sup>, Nozomi Ouchi<sup>2</sup>, Shunji Suzuki<sup>2</sup>, Rimpei Morita<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2</sup>Department of Obstetrics and Gynecology, Nippon Medical School, <sup>3</sup>Department of Orthopedic Surgery, Tomei Atsugi Hospital, Kanagawa, Japan

WS04-24-P

### **Unraveling lung epithelial cell injury and fibrosis: a robust *ex vivo* culture model for investigating molecular interactions and disease pathogenesis**

○ Bin Wu<sup>1,2</sup>, Shigeyuki Shichino<sup>1</sup>, Satoshi Ueha<sup>1</sup>, Toshihiro Ito<sup>3</sup>, Kouji Matsushima<sup>1</sup>

<sup>1</sup>Tokyo University of Science, Reserach Institute for Biomedical Science, Division of Molecular Regulation of Inflammatory and Immune Diseases, <sup>2</sup>ImmunoGene Teqs, <sup>3</sup>Nara Medical University, Department of Immunology



WS04-25-P

### Impact of the gut the microbiota and their metabolites on the development of non-alcoholic steatohepatitis in type 2 diabetic TSOD mice and their control TSNO mice

○ Naoya Igarashi<sup>1)</sup>, Yukihiro Furusawa<sup>1)</sup>, Koichi Tsuneyama<sup>2)</sup>, Yoshinori Nagai<sup>1)</sup>

<sup>1)</sup>Department of Pharmaceutical Engineering, Faculty of Engineering, Toyama Prefectural University, <sup>2)</sup>Department of Pathology and Laboratory Medicine, Tokushima University Graduate School

WS04-26-P

### Development of a thrombocytopenia risk assessment method using whole blood

○ Natsumi Maeda, Kosuke Harada, Tadahiro Shinozawa

Drug Safety Research and Evaluation, Research, Takeda Pharmaceutical Company Limited, 26-1, Muraoka-Higashi 2-chome, Fujisawa, Kanagawa 251-8555, Japan

## January 17

### WS05 Allergy-1

WS05-01-O/P

### Neonatal skin dysbiosis and altered Th2/Th17 signaling are associated with the development of infantile atopic dermatitis

○ Tomoka Ito<sup>1)</sup>, Reika Aoyama<sup>1)</sup>, Seitaro Nakgawa<sup>1,2)</sup>, Yuriko Yamazaki<sup>1,3)</sup>, Naohiro Inohara<sup>4)</sup>, Yoko Ichikawa<sup>5)</sup>, Naoki Shimojo<sup>6)</sup>, Takashi Sugihira<sup>1,2)</sup>, Manabu Fujimoto<sup>1,7)</sup>, Yumi Matsuoka Nakamura<sup>1,2,3)</sup>

<sup>1)</sup>Department of Dermatology, Graduate School of Medicine, Osaka University, <sup>2)</sup>Department of Cutaneous Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>3)</sup>Cutaneous Allergy and Host Defense, Immunology Frontier Research Center, Osaka University, <sup>4)</sup>Department of Pathology and Rogel Cancer Center, University of Michigan Medical School, <sup>5)</sup>Ichikawa Clinic, <sup>6)</sup>Center for Preventive Medical Sciences, Chiba University, <sup>7)</sup>Cutaneous Immunology, Immunology Frontier Research Center, Osaka University

WS05-02-O/P

### Staphylococcus aureus $\delta$ -toxin present on skin promotes the development of food allergy in an IL-1 $\alpha$ -dependent manner in murine model

○ Hiromichi Yamada<sup>1,2)</sup>, Ayako Kaitani<sup>1)</sup>, Kumi Izawa<sup>1)</sup>, Tomoaki Ando<sup>1)</sup>, Shino Uchida<sup>1)</sup>, Risa Yamamoto<sup>1)</sup>, Akie Maehara<sup>1)</sup>, Shun Toriumi<sup>1,2)</sup>, Naoko Negishi<sup>1)</sup>, Nobuhiro Nakano<sup>1)</sup>, Ko Okumura<sup>1)</sup>, Jiro Kitaura<sup>1)</sup>

<sup>1)</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2)</sup>Department of Pediatrics and Adolescent Medicine, Juntendo University Graduate School of Medicine

WS05-03-P

### Antigen protease activity with a detergent induces severe skin inflammation with itch and robust Th17/Th22 differentiation in mice

○ Seiji Kamijo<sup>1)</sup>, Tomoko Yoshimura<sup>2)</sup>, Yurie Masutani<sup>2)</sup>, Toru Kimitsu<sup>2)</sup>, Saori Ichikawa<sup>3)</sup>, Takasuke Ogawa<sup>2)</sup>, Mitsutoshi Tominaga<sup>4)</sup>, Hajime Suto<sup>1)</sup>, Kenji Takamori<sup>4)</sup>, Shigaku Ikeda<sup>1,2)</sup>, Ko Okumura<sup>1)</sup>, Toshiro Takai<sup>1)</sup>

<sup>1)</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2)</sup>Department of Allergology and Dermatology, Juntendo University Graduate School of Medicine, <sup>3)</sup>Department of Materials and Biological Sciences, Japan Women's University, <sup>4)</sup>Juntendo Itch Research Center (JIRC), Juntendo University Graduate School of Medicine

WS05-04-O/P

### Psychological stress enhances scratching behavior in atopic dermatitis by increasing sensitivity of sensory nerves

○ Kei Nagao<sup>1,2)</sup>, Soichiro Yoshikawa<sup>1)</sup>, Syuhei Sano<sup>1)</sup>, Toshiro Takai<sup>3)</sup>, Sachiko Miyake<sup>3)</sup>

<sup>1)</sup>Department of Immunology, Juntendo University Graduate School of Medicine, <sup>2)</sup>Department of Cellular Physiology Okayama University Graduate School of Medicine, <sup>3)</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine

WS05-05-P

### Considering the allergic march from the perspective of innate immunity

○ Hiroka Yamashita<sup>1)</sup>, Yasutaka Motomura<sup>1,2)</sup>, Kazuyo Moro<sup>1,2,3)</sup>

<sup>1)</sup>Laboratory for Innate Immune Systems, Department of Immunology and Microbiology, Osaka University Graduate School of Medicine, <sup>2)</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center, <sup>3)</sup>Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Sciences (IMS)

WS05-06-O/P

### Roles of GATA3 in LPS-induced cytokine expression in mast cells

○ Yuki Goto, Kazuki Nagata, Hiromi Takeuchi, Chiharu Nishiyama

Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science

WS05-07-P

### Antigen-IgE affinity is an important factor influencing Fc $\epsilon$ RI desensitization without mast cell activation

○ Yuka Nagata, Miyu Kimura, Atsushi Furukawa, Ryo Suzuki

Laboratory of Hygienic Chemistry, Faculty of Pharmaceutical Sciences, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University

WS05-08-P

**Estimation of allergen-specific peptides interfering mast cell degranulation**

○ Hina Kawashima, Miyoko Matsushima, Nodoka Shimasaki, Hinata Taniguchi, Sayaka Takagi, Fuzuki Hayashi, Nanami Yoshida, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine, Tokai National Higher Education and Research System

WS05-09-P

**Mucosal mast cell antigen presentation contributes to the development of intestinal mast cell hyperplasia in food allergy**

○ Nobuhiro Nakano<sup>1</sup>, Kenji Oishi<sup>1,2</sup>, Jiro Kitaura<sup>1</sup>, Hideoki Ogawa<sup>1</sup>, Ko Okumura<sup>1</sup>

<sup>1</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2</sup>Department of Pediatrics and Adolescent Medicine, Juntendo University Graduate School of Medicine

WS05-10-P

**Pathogenesis of allergic airway inflammation caused by DOCK2 deficiency**

○ Keisuke Matsubara, Yoshinori Fukui

Division of Immunogenetics, Medical Institute of Bioregulation, Kyushu University

WS05-11-O/P

**miR-451a containing EVs suppress delayed-type hypersensitivity by regulating IL-17A producing T cells**

○ Takanobu Yoshida<sup>1,2</sup>, Ken Takashima<sup>1</sup>, Hiroyuki Oshiumi<sup>1</sup>

<sup>1</sup>Department of Immunology, Faculty of Life Sciences, Kumamoto University, <sup>2</sup>Department of Pediatrics, Faculty of Life Sciences, Kumamoto University

WS05-12-P

**Amphiregulin-producing T helper 2 cells facilitate esophageal fibrosis of eosinophilic esophagitis**

○ Tatsuya Kaneko<sup>1,2</sup>, Chiaki Iwamura<sup>1</sup>, Akane Kurosugi<sup>1,2</sup>, Masahiro Kiuchi<sup>1</sup>, Toshinori Nakayama<sup>1</sup>, Kiyoshi Hirahara

<sup>1</sup>Department of Immunology, Graduate School of Medicine, Chiba University, <sup>2</sup>Department of Gastroenterology, Graduate School of Medicine, Chiba University

WS05-13-O/P

**GATA3 dysfunction in follicular regulatory T cells may underlie selective dysregulation of type 2 humoral immunity in *Foxp3*<sup>A384T</sup> mice**

○ Shiki Masumoto, Akira Nakajima, Shohei Hori

Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS05-14-P

***Foxp3* and *Bcl6* double-deficient mice spontaneously developed dermatitis accompanied with type 2 inflammation**

○ Riyo Kawasaki<sup>1</sup>, Yuki Tai<sup>1</sup>, Kaori Kanemaru<sup>3</sup>, Yoshikazu Nakamura<sup>3</sup>, Shuhei Ogawa<sup>2</sup>, Yohsuke Harada<sup>1</sup>

<sup>1</sup>Faculty of Pharmaceutical Science, Tokyo University of Science, <sup>2</sup>Research Institute for Biomedical Science, Tokyo University of Science, <sup>3</sup>Faculty of Science and Technology, Tokyo University of Science

WS05-15-P

**Effects of Tr1 cell-derived extracellular vesicles (Tr1-EVs) on activation of ILC2 in a murine model of asthma**

○ Masaya Matsuda, Shunsuke Nishiuma, Mari Watanabe, Kazuyuki Kitatani, Takeshi Nabe

Setsunan Univ.

WS05-16-P

**Immunoregulatory activities of Interleukin-38 on Allergic Rhinitis**

○ Sze Man Hon, Peiting Li, Chun Kwok Wong

The Chinese University of Hong Kong

WS05-17-O/P

**Comprehensive analysis of endotype-dependent efficacy of antibody therapies in asthma**

○ Hinami Kawahata<sup>1</sup>, Takuya Yashiro<sup>1</sup>, Kazuyo Moro<sup>1,2</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>2</sup>Laboratory for Innate Immune Systems, RIKEN-IMS

WS05-18-O/P

**In vitro and in vivo efficacy of Fab fragments against human IgE Cε2 in anaphylactic reactions**

○ Hexing Wang<sup>1</sup>, Tomoaki Ando<sup>1</sup>, Toshiaki Maruyama<sup>2</sup>, CJ Okumura<sup>2</sup>, Kumi Izawa<sup>1</sup>, Ayako Kaitani<sup>1</sup>, Akie Maehara<sup>1</sup>, Nobuhiro Nakano<sup>1</sup>, Ko Okumura<sup>1</sup>, Jiro Kitaura<sup>1</sup>

<sup>1</sup>Atopy (Allergy) research center, Juntendo University Graduate School of Medicine, <sup>2</sup>Abwiz Bio Inc.

WS05-19-P

**Effects of a JAK inhibitor, delgocitinib on steroid-resistant asthma and ILC2 proliferation**

○ Yukiko Nakayama, Hayato Shimora, Masaya Matsuda, Kazuyuki Kitatani, Takeshi Nabe

Setsunan Univ.



WS05-20-P

### Development of a novel anti-sulfated glycan antibody that blocks lymphocyte homing to nasal associated-lymphoid tissues and allergic rhinitis in mice

○ Hiroto Kawashima, Wei Liu, Wei Xiong, Wenxin Liu, Jotaro Hirakawa  
Graduate School of Pharmaceutical Sciences, Chiba University

January 17

## WS06 Cytokines and chemokines

WS06-01-P

### Essential roles of the oncostatin M receptor $\beta$ -mediated axis in skin wound healing by regulating HGF and TIMP-1 expression on fibroblasts

○ Yuko Ishida<sup>1</sup>, Yumi Kuninaka<sup>1</sup>, Tadasuke Komori<sup>1</sup>, Mizuho Nosaka<sup>1</sup>, Akihiko Kimura<sup>1</sup>, Atsushi Miyajima<sup>2</sup>, Yoshihiro Morikawa<sup>1</sup>, Mariko Kawaguchi<sup>1</sup>, Toshikazu Kondo<sup>1</sup>

<sup>1</sup>Wakayama Medical University, <sup>2</sup>The University of Tokyo

WS06-02-P

### CCL3-CCR5 axis in Kupffer cells plays a detrimental role in acetaminophen-induced acute liver injury

○ Yumi Kuninaka, Yuko Ishida, Mizuho Nosaka, Akihiko Kimura, Naofumi Mukaida, Mariko Kawaguchi, Toshikazu Kondo

Wakayama medical university

WS06-03-P

### Recombinant soluble thrombomodulin attenuates cisplatin-induced intestinal injury by inhibiting intestinal epithelial cell-derived cytokine secretion

○ Arong Gaowa<sup>1</sup>, Takanori Yamaguchi<sup>2</sup>, Eun Jeong Park<sup>1</sup>, Motomu Shimaoka<sup>1</sup>

<sup>1</sup>Dept. of Molecular Pathobiology and Cell Adhesion Biology, Graduate School of Medicine, Mie Univ., <sup>2</sup>Dept. of Hematology and Oncology, Graduate School of Medicine, Mie Univ.

WS06-04-P

### CCR4 deficiency aggravates depressive-like behavior in a mouse model of lipopolysaccharide-induced depression

○ Yuta Hara, Ritsuki Sano, Moeka Kitagawa, Tatsuma Honzawa, Kazuhiko Matsuo, Takashi Nakayama  
Division of Chemotherapy, Faculty of Pharmacy, Kindai University

WS06-05-P

### Fractalkine/CX3CR1 axis contribute to renal fibrosis induced by unilateral ureteral obstruction

○ Yuya Iwahashi, Yuko Ishida, Yumi Kuninaka, Akiko Ishigami, Mizuho Nosaka, Akihiko Kimura, Naofumi Mukaida, Isao Hara, Toshikazu Kondo

Wakayama Medical Univ.

WS06-06-O/P

### Absence of CCL5/CCR5 axis exaggerates thrombus formation through reduced uPA, tPA and VEGF expression in murine DVT model

○ Mizuho Nosaka, Yuko Ishida, Yumi Kuninaka, Akiko Ishigami, Hiroki Yamamoto, Akihiko Kimura, Naofumi Mukaida, Toshikazu Kondo

Department of Forensic Medicine, Wakayama Medical University

WS06-07-O/P

### CXCL12 derived from intestinal fibroblasts prevents tumorigenesis through modulation of epithelial cell metabolism

○ Mayu Yagita<sup>1</sup>, Hisako Kayama<sup>2</sup>, Atsushi Kumanogoh<sup>1</sup>, Kiyoshi Takeda<sup>2</sup>

<sup>1</sup>Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University, <sup>2</sup>Laboratory of Immune Regulation, Department of Microbiology and Immunology, Osaka University Graduate School of Medicine

WS06-08-O/P

### Identification of the origin and function of soluble ST2 in asthma

○ Pei-Chi Lo<sup>1,2,4</sup>, Yasutaka Motomura<sup>1,2,4</sup>, Kazuyo Moro<sup>1,2,3,4</sup>

<sup>1</sup>Osaka University Immunology Frontier Research Center (IFReC), <sup>2</sup>Graduate School of Medicine, Osaka University, <sup>3</sup>Graduate School of Frontier Biosciences, Osaka University, <sup>4</sup>RIKEN IMS

WS06-09-P

### IL-21 isoform transgenic mice spontaneously develop mammary tumors

○ Akemi Araki, Shinichi Saitoh, Yuji Takeda, Saima Sabrina, Risako Yamaguchi, Mikako Nagashima, Yusuke Nouchi, Hironobu Asao

Department of Immunology, Faculty of Medicine, Yamagata University

WS06-10-P

### Selective cell stimulation with bovine interleukin-2 mutein and the distribution of bovine CD122 on the peripheral lymphocytes

○ Shuya Mitoma<sup>1</sup>, Tomofumi Uto<sup>1</sup>, Tomohiro Fukaya<sup>1</sup>, Moe Tominaga<sup>1</sup>, Katsuaki Sato<sup>1</sup>, Junzo Norimine<sup>2</sup>

<sup>1</sup>Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki, <sup>2</sup>Center for Animal Disease Control, University of Miyazaki

WS06-11-P

### Ectopic expressions of inflammatory cytokines promote the proliferation of B-precursor acute lymphoblastic leukemia

○ Aisa Suzuki, Tsukasa Shigehiro, Tomokatsu Ikawa

Tokyo University of Science, Research Institute for Biomedical Sciences

WS06-12-P

### DNA methylation alters the expression of ERV elements in cellular senescence

○ Shogo Takayama, Teh-Wei Wang, Makoto Nakanishi

University of Tokyo

WS06-13-P

### Analysis of disease-related SNPs and inflammation inducing mechanisms in Dupuytren's contracture

○ Yuki Tanaka<sup>1,2</sup>, Hiroaki Kida<sup>2</sup>, Jing-Jing Jiang<sup>2</sup>, Ikuko Takahashi<sup>2</sup>, Shigeru Hashimoto<sup>2</sup>, Masaaki Murakami<sup>1,2</sup>

<sup>1</sup>National Institutes for Quantum and Science and Technology, <sup>2</sup>Division of Molecular Psychoimmunology, Institute for Genetic Medicine, Graduate School of Medicine, Hokkaido University

WS06-14-O/P

### Adrenergic control of lymphocyte recirculation via formation of heteromeric complexes between the $\beta_2$ -adrenergic receptor and chemokine receptors

○ Akiko Nakai<sup>1,2</sup>, Kazuhiro Suzuki<sup>1,2,3</sup>

<sup>1</sup>Laboratory of Immune Response Dynamics, WPI Immunology Frontier Research Center, Osaka University, Osaka, Japan, <sup>2</sup>Department of Immune Response Dynamics, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan, <sup>3</sup>Center for Infectious Disease Education and Research, Osaka University

WS06-15-O/P

### IL-18: immune mediator from maternal uterus to placental development

○ Hajime Ino<sup>1,2</sup>, Yasuyuki Negishi<sup>1,2</sup>, Yumi Horii<sup>1,2</sup>, Eri Koike<sup>1</sup>, Richard A. Flavell<sup>3</sup>, Shunji Suzuki<sup>2</sup>, Rimpei Morita<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2</sup>Department of Obstetrics and Gynecology, Nippon Medical School, <sup>3</sup>Section of Immunobiology, Yale University School of Medicine

WS06-16-P

### Protective role of inflammatory cytokines in murine miscarriage: perspective of interleukin-18 functions

○ Yumi Horii<sup>1,2</sup>, Hajime Ino<sup>1,2</sup>, Yasuyuki Negishi<sup>1,2</sup>, Eri Koike<sup>1</sup>, Shunji Suzuki<sup>2</sup>, Rimpei Morita<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Nippon Medical School, Japan, <sup>2</sup>Department of Obstetrics and Gynecology, Nippon Medical School, Japan

WS06-17-P

### Rapidly progressive kidney fibrosis in podocyte specific human TGF- $\beta$ 1 transgenic mice with diabetes

○ Atsuro Takeshita<sup>1,2</sup>, Taro Yasuma<sup>1,2</sup>, Suphachai Tharavecharak<sup>1</sup>, Valeria D'Alessandro Fridman<sup>1</sup>, Maya Kato<sup>3</sup>, Chisa Inoue<sup>2</sup>, Yuko Okano<sup>1,2</sup>, Kota Nishihama<sup>2</sup>, Masaaki Toda<sup>1</sup>, Corina N. D'Alessandro-Gabazza<sup>1</sup>, Yutaka Yano<sup>2</sup>, Esteban C. Gabazza<sup>1</sup>

<sup>1</sup>Mie University Graduate School of Medicine, Department of Immunology, <sup>2</sup>Mie University Faculty of Medicine, Department of Diabetes and Endocrinology, <sup>3</sup>Mie University Faculty of Medicine, Department of Obstetrics & Gynecology

WS06-18-P

### Water extract of limonite ameliorates palmitate-induced lipid accumulation and insulin-resistance in HepG2 cells

○ Chisa Inoue<sup>1,2</sup>, Masaaki Toda<sup>1</sup>, Taro Yasuma<sup>1</sup>, Atsuro Takeshita<sup>1</sup>, Yuko Okano<sup>1,2</sup>, Kota Nishihama<sup>2</sup>, Corina N D'Alessandro Gabazza<sup>1</sup>, Valeria Fridman D'Alessandro<sup>1</sup>, Takehiro Takagi<sup>3</sup>, Yutaka Yano<sup>2</sup>, Esteban C Gabazza<sup>1</sup>

<sup>1</sup>Department of Immunology, Mie University Graduate School of Medicine, Tsu, Mie, Japan, <sup>2</sup>Department of Diabetes and Endocrinology, Mie University Graduate School of Medicine, Tsu, Mie, Japan; <sup>3</sup>Iwasaki Hospital, Tsu, Mie, Japan, <sup>3</sup>Iwasaki Hospital, Tsu, Mie, Japan

WS06-19-P

### Analysis of signal transduction pathway by IFN $\lambda$ 4

○ Yuga Sato<sup>1</sup>, Kazuhisa Murai<sup>1</sup>, Kensuke Tanaka<sup>1</sup>, Masao Honda<sup>1,2</sup>

<sup>1</sup>Department of Clinical Laboratory Medicine, Kanazawa Univ. Graduate School of Health Medicine, Kanazawa, Japan, <sup>2</sup>Department of Gastroenterology, Kanazawa Univ. Graduate School of Medicine, Kanazawa, Japan

WS06-20-O/P

### **Identification and characterization of putative enhancer regions that direct *I/I6* transcription in murine macrophages**

○ Norisuke Kano, Takeo Miki, Yurina Uehara, Daisuke Ori, Taro Kawai  
Nara Institute science and technology

WS06-21-P

### **CCL20/CCR6 axis is not necessarily required for experimental autoimmune encephalomyelitis**

Nozomi Sachi, Naganori Kamiyama, Sotaro Ozaka, Chalalai Thanyakorn, Yasuhiro Soga, Yomei Kagoshima,  
○ Takashi Kobayashi  
Department of Infectious Disease Control, Oita University Faculty of Medicine.

WS06-22-P

### **IL-18 augments Th17 cells-mediated airway inflammation in aged mice**

○ Masakiyo Nakahira, Etsushi Kuroda  
Department of Immunology, School of Medicine, Hyogo Medical University

WS06-23-P

### **The mechanism of coronary arteritis development in a mouse model of Kawasaki disease**

○ Masami Fujita, Hiroki Satooka, Takako Hirata  
Shiga University of Medical Science

WS06-24-O/P

### **A Computational model of IL-6-dependent disease progression in arthritis model (F759) mice**

○ Hiroki Tanaka<sup>1)</sup>, Reiji Yamamoto<sup>1,2)</sup>, Satoshi Yamada<sup>3)</sup>, Toru Atsumi<sup>1)</sup>, Kaoru Murakami<sup>1)</sup>, Ari Hashimoto<sup>2)</sup>,  
Seichiro Naito<sup>1)</sup>, Akihiko Yoshimura<sup>4)</sup>, Daisuke Kamimura<sup>1)</sup>, Shintaro Hojyo<sup>1)</sup>, Shigeru Hashimoto<sup>1)</sup>,  
Masaaki Murakami<sup>1,5,6)</sup>

<sup>1)</sup>Institute for Genetic Medicine, Hokkaido University, <sup>2)</sup>Faculty of Medicine and Graduate School of Medicine, Hokkaido University, <sup>3)</sup>Faculty of Information science and Engineering, Okayama University of Science, <sup>4)</sup>School of Medicine, Keio University, <sup>5)</sup>National Institute for Quantam and Radiological Science and Techlonogy, <sup>6)</sup>National Institute for Physiological Science, National Institute of Natural Science

WS06-25-P

### **Elevated Plasma and Bile Levels of Corisin, a MicrobiotaDerived Proapoptotic Peptide, in Patients with Severe Acute Cholangitis**

○ Ryo Nishiwaki<sup>1)</sup>, Taro Yasuma<sup>2)</sup>, Esteban C Gabazza<sup>2,3)</sup>  
<sup>1)</sup>Digestive Endoscopy Center ,Matsusaka Municipal Hospital, <sup>2)</sup>Microbiome Research Center, Mie University, <sup>3)</sup>Department of Immunology, and Department of Pulmonary and Critical Care Medicine, Mie University Faculty and Graduate School of Medicine, Mie University Hospital

WS06-26-P

### **METRNL protect the skin from chronic inflammation in atopic dermatitis**

○ Danqi Huang<sup>1)</sup>, Xiuting Liu<sup>2)</sup>, Xun Gao<sup>3)</sup>, Jinyue Liao<sup>1)</sup>, Phyllis Fung-Yi Cheung<sup>4)</sup>, Ting-Fan Leung<sup>1)</sup>,  
Katie Ching-Yau Wong<sup>1)</sup>, Lea Ling-Yu Kan<sup>1)</sup>, Christopher Wai-Kei Lam<sup>5)</sup>, Chun-Kwok Wong<sup>1)</sup>

<sup>1)</sup>The Chinese University of Hong Kong, <sup>2)</sup>Sun Yat-sen University, <sup>3)</sup>Southeast University, <sup>4)</sup>University Hospital Essen, <sup>5)</sup>Macau University of Science and Technology

WS06-27-O/P

### **Fibroblast growth factor 18 stimulates the proliferation of hepatic stellate cells, thereby inducing liver fibrosis**

○ Takao Seki<sup>1)</sup>, Yuichi Tsuchiya<sup>2)</sup>, Shigeyuki Shichino<sup>3)</sup>, Takashi Nishina<sup>1)</sup>, Soh Yamazaki<sup>1)</sup>, Kouji Matsushima<sup>3)</sup>,  
Hideo Yagita<sup>5)</sup>, Ko Okumura<sup>5)</sup>, Minoru Tanaka<sup>4)</sup>, Hiroyasu Nakano<sup>1)</sup>

<sup>1)</sup>Department of Biochemistry, Faculty of Medicine, Toho University, <sup>2)</sup>Department of Biochemistry, Faculty of Pharmaceutical Science, Toho University, <sup>3)</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, <sup>4)</sup>Department of Regenerative Medicine, Research Institute, National Center for Global Health and Medicine, <sup>5)</sup>Department of Immunology, Faculty of Medicine and Graduate School of Medicine, Juntendo University, <sup>6)</sup>Atopy Research Center, Faculty of Medicine and Graduate School of Medicine, Juntendo University

WS06-28-P

### **Inhibition of melanogenesis by conditioned medium of an immortalized stem cell line from human exfoliated deciduous teeth through possibly Wnt5a-mediated suppression of Wnt signaling**

○ Ami Sekine, Shinya Inoue, Yasuhiro Katahira, Aruma Watanabe, Satomi Miyakawa, Hideaki Hasegawa,  
Izuru Mizoguchi, Takayuki Yoshimoto  
Tokyo Medical University

WS06-29-P

### **DISTINCT CELL-TYPE- AND STIMULUS-SPECIFIC LANDSCAPES OF THE TNF LOCUS**

○ Aya Nambu<sup>1,2)</sup>, Motohiko Kadoki<sup>3,4,2)</sup>, Anne E Goldfeld<sup>1,2)</sup>

<sup>1)</sup>Boston Children's Hospital, <sup>2)</sup>Harvard Medical School, <sup>3)</sup>Massachusetts General Hospital, <sup>4)</sup>Broad Institute

## WS07 Tolerance and immune suppression-1

WS07-01-O/P

### Regulatory T cells tonically inhibit spontaneous activation of naturally arising memory-phenotype CD4<sup>+</sup> T lymphocytes

○ Jing Li, Ziyang Yang, Akihisa Kawajiri, Kosuke Sato, Shunichi Tayama, Naoto Ishii, Takeshi Kawabe  
Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine

WS07-02-O/P

### Inhibition of AKT-mTOR signaling contributes to Foxp3-dependent induction of endogenous Foxp3 transcription *in vivo*

○ Yuxi Wei, Hinako Ago, Shotaro Funatsu, Ryuichi Murakami, Akira Nakajima, Shohei Hori  
Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS07-03-O/P

### Single cell suppression profiling of human regulatory T cells

○ Jonas Nørskov Søndergaard<sup>1</sup>, Janyerkye Tulyeu<sup>1</sup>, David Priest<sup>2</sup>, Shimon Sakaguchi<sup>3,4</sup>, James B Wing<sup>1,2</sup>  
<sup>1</sup>Human Immunology Team, Center for Infectious Disease Education and Research (CIDER), Osaka University, Suita, Japan, <sup>2</sup>Laboratory of Human Immunology (Single Cell Immunology), WPI Immunology Frontier Research Center (IFReC), Osaka University, Suita, Japan, <sup>3</sup>Laboratory of Experimental Immunology, WPI Immunology Frontier Research Center (IFReC), Osaka University, Suita, Japan, <sup>4</sup>Department of Experimental Pathology, Institute for Frontier Medical Sciences, Kyoto University, Kyoto, Japan

WS07-04-O/P

### Runx3/Cbfb $\beta$ regulates Ror $\gamma$ <sup>+</sup> Treg differentiation through Ror $\gamma$ <sup>+</sup> Thetis APCs in the gut

○ Chihiro Ogawa, Chengcheng Zou, Ichiro Taniuchi  
RIKEN Center for Integrative Medical Sciences, Laboratory for Transcriptional Regulation

WS07-05-O/P

### MHC class II limits microbiota-dependent activation of colonic CD8 T cells in a CD4 T cell- and LAG-3-dependent manner

○ Tomoya Sengiku<sup>1</sup>, Masato Kubo<sup>2,3</sup>, Shohei Hori<sup>1</sup>, Ruka Setoguchi<sup>1</sup>  
<sup>1</sup>Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo, <sup>2</sup>Research Institute for Biomedical Science, Tokyo University of Science, <sup>3</sup>Research Center for Integrative Medical Science (IMS), RIKEN Yokohama Institute

WS07-06-O/P

### A novel mechanism for LAG-3-mediated cell-extrinsic suppression of CD4<sup>+</sup> T cell activation through trogocytosis of MHC class II

○ Ei Wakamatsu, Hiroaki Machiyama, Hiroko Toyota, Masae Furuhata, Hitoshi Nishijima, Arata Takeuchi, Tadashi Yokosuka  
Tokyo Medical Univ.

WS07-07-O/P

### Mbd3 facilitates thymic regulatory T precursor cell development and Treg lineage commitment by altering the Treg-specific CD25 enhancer landscape

○ Jia Long<sup>1,2</sup>, Kenji Ichiyama<sup>1,2</sup>, Shimon Sakaguchi<sup>1,2,3</sup>  
<sup>1</sup>Immunology Frontier Research Center, <sup>2</sup>Osaka Univ., <sup>3</sup>Kyoto Univ.

WS07-08-P

### Analysis of PD-L1 on renal vascular endothelial cells

○ Yoichi Imai, Yoriaki Kaneko, Junpei Sunaga, Masato Kinoshita, Junya Suwa, Mitsuharu Watanabe, Keiju Hiromura  
Gunma University Graduate School of Medicine Department of Nephrology and Rheumatology

WS07-09-P

### Studies of TIGIT-CD155 axis for induction and maintenance of iTreg cells

○ Naoko Negishi, Jiro Kitaura, Ko Okumura, Sonoko Habu  
Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine

WS07-10-P

### The effect of chrysin on macrophage activation by TLRs

○ Sayaka Takagi, Miyoko Matsushima, Nodoka Shimasaki, Hinata Taniguchi, Hina Kawashima, Fuzuki Hayashi, Nanami Yoshida, Tsutomu Kawabe  
Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine, Tokai National Higher Education and Research System

WS07-11-P

**Establishment of the mouse model with mild/moderate hemophilia A inducible the neutralizing anti-FVIII alloantibodies**

○ Akihisa Oda, Shoko Furukawa, Keiko Nishimura, Keiji Nogami  
Department of Pediatrics, Nara Medical University

WS07-12-P

**Gut dysbiosis abrogates the establishment of oral tolerance mediated through dysfunction of mucosal dendritic cells**

○ Tomohiro Fukaya, Tomofumi Uto, Shuya Mitoma, Moe Tominaga, Katsuaki Sato  
Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki

WS07-13-P

**A new immune checkpoint molecule ILDR2 expression on CD206<sup>+</sup> macrophages is enhanced after repeated antigen-painting onto sublingual mucosa**

○ Farzana Sultana, Zhang Chenyang, Miyuki Azuma, Shigenori Nagai  
Molecular Immunology, Tokyo Medical and Dental University

WS07-14-P

**Governing immunity by self-dominant peptide temporo-spatially: stabilizing sequentially induced tissue antigen-specific effector regulatory T cells and limiting epitope spreading capacity**

○ Youwei Lin<sup>1,2)</sup>, Shun Sakuraba<sup>3)</sup>, Chandirasegaran Massilamany<sup>4)</sup>, Jayagopala Reddy<sup>5)</sup>, Yoshimasa Tanaka<sup>6)</sup>, Sachiko Miyake<sup>7)</sup>, Takashi Yamamura<sup>1)</sup>

<sup>1)</sup>Department of Immunology, National Institute of Neuroscience, National Center of Neurology and Psychiatry, <sup>2)</sup>Department of Neurology, National Center Hospital, National Center of Neurology and Psychiatry, <sup>3)</sup>National Institutes for Quantum Science and Technology, Institute for Quantum Life Science, <sup>4)</sup>Immuno-oncology CRISPR Therapeutics, <sup>5)</sup>School of Veterinary Medicine and Biomedical Sciences, University of Nebraska-Lincoln, <sup>6)</sup>Nagasaki University Graduate School of Biomedical Science, <sup>7)</sup>Department of Immunology, Juntendo University School of Medicine

WS07-15-P

**Potential therapeutic approach for liver fibrosis: Macrophage-based cell therapy**

○ Haruka Wada, Ken-ichiro Seino  
Institute for Genetic Medicine, Hokkaido University

## January 18

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### WS08 Tumor immunity-1; Effector cell therapy

WS08-01-O/P

**Elucidating Tissue-Specific Metabolisms in Chimeric Antigen Receptor T-Cell Therapy**

○ Ari Itoh-Nakadai<sup>1,2)</sup>, Mariko Murasawa-Tomizawa<sup>1)</sup>, Masashi Matsuda<sup>3)</sup>, Haruhiko Koseki<sup>3)</sup>, Fumihiko Ishikawa<sup>1)</sup>

<sup>1)</sup>Laboratory for Human Disease Models, IMS, Riken, Yokohama, Japan, <sup>2)</sup>Hygiene & public Health, Nippon Medical School, Tokyo, Japan, <sup>3)</sup>Developmental Genetics, IMS,RIKEN, Yokohama, Japan

WS08-02-O/P

**Trogocytosis controlled CAR-T cells show enhanced anti-tumor activity**

○ Atsutaka Minagawa, Shin Kaneko  
Kyoto University iPS Cell Research and Application

WS08-03-O/P

**Genetically engineered induced pluripotent stem cell-derived T cells with drastically improved anti-tumor efficacy against solid tumor**

○ Akihiro Ishikawa, Masazumi Waseda, Tomoko Ishii, Yohei Kawai, Shin Kaneko  
Kaneko-Lab, Center for iPS Cell Research and Application, Kyoto University

WS08-04-P

**Generation of multiple immune cells engineered with chimeric antigen receptors from self-renewing leukocyte progenitor cells**

○ Tsukasa Shigehiro, Shogo Tanimori, Hiroshi Kadota, Tomokatsu Ikawa  
Research Institute for Biomedical Sciences, Tokyo University of Science

WS08-05-O/P

**Dissecting the roles of STAT3 and STAT5 in antitumor T cells**

○ Haosong Zhang<sup>1,2,3)</sup>, Zhiwen Wu<sup>2)</sup>, Yuki Kagoya<sup>1,2)</sup>

<sup>1)</sup>Division of Tumor Immunology, Institute for Advanced Medical Research, Keio University School of Medicine, <sup>2)</sup>Division of Immune Response, Aichi Cancer Center Research Institute, <sup>3)</sup>Department of Cancer Diagnostics and Therapeutics, Nagoya University Graduate School of Medicine

WS08-06-O/P

### Efficient activity of CAR T cell targeting pMHC depends on binding affinity

○ Hiratsuka Hiroyuki<sup>1)</sup>, Yasushi Akahori<sup>1)</sup>, Shingo Maeta<sup>2)</sup>, Daisuke Ejima<sup>2)</sup>, Yuriko Egashira<sup>2)</sup>, Atsushi Fukunaga<sup>2)</sup>, Hiroshi Shiku<sup>1,3)</sup>

<sup>1)</sup>Department of Personalized Cancer Immunotherapy, Mie University graduate School of medicine, <sup>2)</sup>Bio-Diagnostic Reagent Technology Center, Sysmex Corporation, <sup>3)</sup>deceased 4 September 2022

WS08-07-O/P

### Development of HLA-A2 restricted GPC3 TCR-T cells for cancer immunotherapy

○ Manami Shimomura<sup>1)</sup>, Kayoko Shoda<sup>1)</sup>, Toshiaki Yoshikawa<sup>1)</sup>, Toshihiro Suzuki<sup>1)</sup>, Kazunobu Ohnuki<sup>1)</sup>, Kaho Takeichi<sup>2)</sup>, Sachiko Okamoto<sup>2)</sup>, Tetsuya Nakatsura<sup>1)</sup>

<sup>1)</sup>National Cancer Center, EPOC, Cancer immunology, <sup>2)</sup>Takara Bio. Inc.

WS08-08-P

### Isolation of a novel high-avidity TCR in pancreatic cancer patients receiving the combination of WT1<sub>126</sub> peptide vaccine plus gemcitabine

○ Soyoko Morimoto<sup>1)</sup>, Sumiyuki Nishida<sup>2,3)</sup>, Fumihiko Fujiki<sup>4)</sup>, Akinori Nagata<sup>5)</sup>, Satsuki Okafuji<sup>5)</sup>, Jun Nakata<sup>5)</sup>, Hiroko Nakajima<sup>6)</sup>, Yoshihiro Oka<sup>1)</sup>, Yusuke Oji<sup>5)</sup>, Atsushi Kumanogoh<sup>3)</sup>, Haruo Sugiyama<sup>6)</sup>

<sup>1)</sup>Department of Cancer Stem Cell Biology, Osaka University Graduate School of Medicine, <sup>2)</sup>Strategic Global Partnership & X(Cross)-Innovation Initiative Graduate School of Medicine, Osaka University and Osaka University Hospital, <sup>3)</sup>Department of Respiratory Medicine and Clinical Immunology Graduate School of Medicine, Osaka University, <sup>4)</sup>Department of Cancer Immunotherapy, Osaka University Graduate School of Medicine, <sup>5)</sup>Department of Clinical Laboratory and Biomedical Sciences, Osaka University Graduate School of Medicine, <sup>6)</sup>Department of Cancer Immunology, Osaka University Graduate School of Medicine

WS08-09-O/P

### Evaluation of tumor infiltrating lymphocytes (TILs)-derived MR1 restricted TCRs of breast cancer patients

○ Abdul Hayee<sup>1)</sup>, Eiji Kobayashi<sup>1)</sup>, Hiroshi Hamana<sup>2)</sup>, Satoshi Yamaguchi<sup>1)</sup>, Ha Thi Viet My<sup>1)</sup>, Tatsuhiko Ozawa<sup>1)</sup>, Hiroyuki Kishi<sup>1)</sup>

<sup>1)</sup>Department of Immunology, Faculty of Medicine, Academic Assembly, University of Toyama, <sup>2)</sup>Thyas Co., Ltd., Kyoto, Japan

WS08-10-P

### Visualizing the immune responses of CAR-T cells against human lymphoma in living bone marrow

○ Erika Yamashita<sup>1,2)</sup>, Kaho Fujii<sup>1)</sup>, Masaru Ishii<sup>1,2)</sup>

<sup>1)</sup>Department of Immunology and Cell Biology Graduate School of Medicine, Osaka University, <sup>2)</sup>StemRIM Institute of Regeneration-Inducing Medicine, Osaka University

WS08-11-P

### Comparison of linear and parallel co-stimulatory signaling via CD28 in the activation of CAR-T Cells

○ Tetsushi Nishikawa<sup>1,2)</sup>, Arata Takeuchi<sup>1)</sup>, Hiroaki Machiyama<sup>1)</sup>, Ei Wakamatsu<sup>1)</sup>, Hitoshi Nishijima<sup>1)</sup>, Masae Furuhashi<sup>1)</sup>, Hiroko Toyota<sup>1)</sup>, Wataru Nishi<sup>3)</sup>, Ryohei Matsushima<sup>1,3)</sup>, Yosuke Yoshida<sup>1,4)</sup>, Tadashi Yokosuka<sup>1)</sup>

<sup>1)</sup>Department of Immunology, Tokyo Medical University, <sup>2)</sup>Department of Dermatology, Tokyo Medical University, <sup>3)</sup>Department of Thoracic Surgery, Graduate School of Medical Sciences, Kumamoto University, <sup>4)</sup>Department of Nephrology, Tokyo Medical University

WS08-12-P

### PD-1-mediated suppression of CAR-T cells via CAR signalosomes colocalized by PD-1

○ Yosuke Yoshida<sup>1,2)</sup>, Hiroaki Machiyama<sup>2)</sup>, Ei Wakamatsu<sup>2)</sup>, Arata Takeuchi<sup>2)</sup>, Hitoshi Nishijima<sup>2)</sup>, Hiroko Toyota<sup>2)</sup>, Masae Furuhashi<sup>2)</sup>, Ryohei Matsushima<sup>4,2)</sup>, Tetsushi Nishikawa<sup>3,2)</sup>, Tadashi Yokosuka<sup>2)</sup>

<sup>1)</sup>Department of Nephrology, Tokyo Medical University, <sup>2)</sup>Department of Immunology, Tokyo Medical University, <sup>3)</sup>Department of Dermatology, Tokyo Medical University, <sup>4)</sup>Department of Thoracic Surgery, Kumamoto University

WS08-13-P

### Generation of CD103<sup>+</sup> tissue-resident memory-like CD8<sup>+</sup> T cells in the tumor

○ Kosuke Kitahata<sup>1)</sup>, Diego Diez<sup>2)</sup>, Masaaki Miyazawa<sup>3,4)</sup>, Shiki Takamura<sup>1)</sup>

<sup>1)</sup>Laboratory for Immunological Memory, RIKEN center for Integrative Medical Science, <sup>2)</sup>Quantitative Immunology Research Unit, Immunology Frontier Research Center, Osaka University, <sup>3)</sup>Shin Nippon Biomedical Laboratories, LTD (SNBL), <sup>4)</sup>Kindai University

WS08-14-P

### Contribution of tumor-reactive T cell clones proliferating in tumor-draining lymph nodes to anti-tumor responses

○ Mikiya Tsunoda<sup>1)</sup>, Munetomo Takahashi<sup>2)</sup>, Hiroyasu Aoki<sup>3)</sup>, Haruka Shimizu<sup>1)</sup>, Masaki Kurosu<sup>1)</sup>, Haru Ogiwara<sup>1)</sup>, Shigeyuki Shichino<sup>1)</sup>, Kouji Matsushima<sup>1)</sup>, Satoshi Ueha<sup>1)</sup>

<sup>1)</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, <sup>2)</sup>Faculty of Medicine, The University of Tokyo, <sup>3)</sup>Department of Preventive Medicine, Graduate School of Medicine, The University of Tokyo.

WS08-15-P

### In vitro model of clonal competition for antigen-specific CD8<sup>+</sup> T cell responses

○ Masaki Kurosu, Mikiya Tsunoda, Hiroyasu Aoki, Haruka Shimizu, Haru Ogiwara, Kouji Matsushima, Satoshi Ueha  
Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science

WS08-16-P

### Acquisition of tumor-specific T cell immunity by wide-spread viral molecule

○ Keita Yamane, Yohei Kawano, Shun Ohki, Yuri Matsuoka, Rin Yoshizato, Yumi Tamura, Yasuo Kitajima, Ryoka Tsukahara, Tomoharu Yasuda

Hiroshima Univ. Grad. Sch. of. Biomed and Health Sci.

WS08-17-P

### Analyses on the possible involvement of miR-31 in the Eomesodermin-mediated exhaustion of anti-tumor CTLs

○ Ritsuki Tanabe, Yui Hirao, Yuka Okabe, Hiroaki Takimoto, Koji Eshima

Laboratory of Immunology, Kitasato University Graduate School of Science

WS08-18-P

### NK cell line for evaluation of cytotoxicity of cloned TCRs

○ Eiji Kobayashi, Tatsuhiko Ozawa, Atsushi Muraguchi, Hiroyuki Kishi

Academic assembly, University of Toyama

WS08-19-P

### HLA-F blockade restored the cytotoxicity of NK cells against colorectal cancer

○ Noriko Ouji-Sageshima<sup>1)</sup>, Masahiro Kitabatake<sup>1)</sup>, Ryutarō Furukawa<sup>1)</sup>, Akiko Ishitani<sup>2)</sup>, Daniel E Geraghty<sup>3)</sup>, Toshihiro Ito<sup>1)</sup>

<sup>1)</sup>Department of Immunology, Nara Medical University, <sup>2)</sup>Department of Future basic medicine, Nara Medical University, <sup>3)</sup>Fred Hutchinson Cancer Research Center

WS08-20-P

### Themis2 impairs anti-tumor activity of NK cells by suppressing activating NK receptor signaling

○ Elfira Amalia Deborah<sup>1,2)</sup>, Tsukasa Nabekura<sup>3,4)</sup>, Kazuko Shibuya<sup>1,4)</sup>, Akira Shibuya<sup>1,3,4)</sup>

<sup>1)</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, Japan, <sup>2)</sup>Doctoral Program in Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan, <sup>3)</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan, <sup>4)</sup>R&D Center for Innovative Drug Discovery, Ibaraki 305-8575, University of Tsukuba, Japan

WS08-21-P

### Essential role of CD155 glycosylation in functional binding to DNAM-1 on natural killer cells

○ Saeko Tahara<sup>1,2)</sup>, Genki Okumura<sup>1,3)</sup>, Akira Shibuya<sup>1,4,5)</sup>, Kazuko Shibuya<sup>1,5)</sup>

<sup>1)</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, <sup>2)</sup>School of Medicine, University of Tsukuba, <sup>3)</sup>Doctoral Program of Biomedical Sciences, Comprehensive Human Sciences, University of Tsukuba, <sup>4)</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba, <sup>5)</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS08-22-P

### iPS cell-derived NKT cells retain the adjuvant activity of inducing memory phenotype T cells

○ Takahiro Aoki<sup>1,2)</sup>, Shinichiro Motohashi<sup>1)</sup>, Haruhiko Koseki<sup>2)</sup>

<sup>1)</sup>Department of Medical Immunology, Graduate School of Medicine, Chiba University, <sup>2)</sup>Laboratory for Developmental Genetics, RIKEN Center for Integrative Medical Science

WS08-23-P

### Evaluation of Innate and Adaptive Immunity in Patients with Cervical Cancer

○ Yuha Hirahara<sup>1,4)</sup>, Tomonori Iyoda<sup>1)</sup>, Kanako Shimizu<sup>1,2,3)</sup>, Satoru Yamasaki<sup>1)</sup>, Shogo Ueda<sup>1)</sup>, Shinya Sato<sup>5)</sup>, Jotaro Harada<sup>6)</sup>, Satoshi Fujii<sup>6)</sup>, Yohei Miyagi<sup>5)</sup>, Etsuko Miyagi<sup>4)</sup>, Shin-ichiro Fujii<sup>1,2,3)</sup>

<sup>1)</sup>Laboratory for Immunotherapy, RIKEN Center for Integrative Medical Science, <sup>2)</sup>aAVC Drug Translational Unit, RIKEN Center for Integrative Medical Science, <sup>3)</sup>Program for Drug Discovery and Medical Technology Platforms, RIKEN, <sup>4)</sup>Department of Obstetrics and Gynecology, Yokohama City University Graduate School of Medicine, <sup>5)</sup>Molecular Pathology and Genetics Division, Kanagawa Cancer Center Research Institute, <sup>6)</sup>Department of Molecular Pathology, Yokohama City University Graduate School of Medicine

WS08-24-P

### Anti-CD4 mAb inhibits tumor growth in pulmonary fibrosis through enhancing antitumor effects of CD8<sup>+</sup>T cells

○ Takehiro Sakabe, Masahiro Kitabatake, Noriko Ouji-Sageshima, Tatsuki Nishioka, Toshihiro Ito

Department of Immunology, Nara Medical University

WS08-25-P

### Combined targeting of patient-specific anti-apoptotic molecules and cell surface proteins in high-risk lymphocytic and myeloid leukemia

○ Ryo Nakagawa<sup>1,4)</sup>, Mari Hashimoto<sup>1)</sup>, Yoriko Saito<sup>1)</sup>, Ari Itoh<sup>1)</sup>, Shinsuke Takagi<sup>2)</sup>, Hanae Amitani<sup>3)</sup>, Mikiko Endo<sup>3)</sup>, Naoyuki Uchida<sup>2)</sup>, Yukihide Momozawa<sup>3)</sup>, Shuichi Taniguchi<sup>2)</sup>, Hideo Harigae<sup>4)</sup>, Fumihiko Ishikawa<sup>1)</sup>

<sup>1)</sup>Laboratory for Human Disease Models, RIKEN Center for Integrative Medical Sciences, <sup>2)</sup>Department of Hematology, Toranomon Hospital, <sup>3)</sup>Laboratory for Genotyping Development, RIKEN Center for Integrative Medical Sciences, <sup>4)</sup>Department of Hematology, Tohoku Univ.

WS08-26-P

### Spred2 deficiency in the host suppresses the progression of cancer in mouse breast cancer models

○ Miao Tian, Teizo Yoshimura, Chunning Li, Toshiaki Ohara, Masayoshi Fujisawa, Akihiro Matsukawa

Department of Pathology and Experimental Medicine, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University



## WS09 Infection immunity 2

WS09-01-O/P

### **A bivalent SARS-CoV-2 mRNA vaccine encoding the SARS-CoV-2 receptor-binding domain broadly protects mice against infection with various SARS-CoV-2 omicron variants**

○ Ryuta Uraki<sup>1,2</sup>, Masaki Imai<sup>1,2</sup>, Mutsumi Ito<sup>2</sup>, Seiya Yamayoshi<sup>1,2</sup>, Maki Kiso<sup>2</sup>, Nao Jounai<sup>3</sup>, Kazuki Miyaji<sup>3</sup>, Kiyoko Iwatsuki-Horimoto<sup>2</sup>, Fumihiko Takeshita<sup>3</sup>, Yoshihiro Kawaoka<sup>1,2,4</sup>

<sup>1</sup>National Center for Global Health and Medicine, <sup>2</sup>The University of Tokyo, <sup>3</sup>Daiichi Sankyo Co., Ltd., <sup>4</sup>University of Wisconsin-Madison

WS09-02-P

### **Safety and immunogenicity of COVAC-2, a COVID-19 subunit vaccine adjuvanted with SEPIVAC SWE™**

○ Ko Sugahara<sup>1</sup>, Houcine Nouari<sup>1</sup>, Juliette Ben Arous<sup>1</sup>, Falko Apel<sup>2</sup>, Darryl Falzarano<sup>3</sup>, Trina Racine<sup>3</sup>

<sup>1</sup>SEPPIC SA, <sup>2</sup>Vaccine Formulation Institute, <sup>3</sup>Vaccine and Infectious Disease Organization (VIDO)

WS09-03-O/P

### **Understanding of SARS-CoV-2 pathogenicity in COVID-19 cynomolgus macaque model and consideration of its reinfection; contribute to the vaccine development**

○ Emiko Urano, Tomotaka Okamura, Yasuhiro Yasutomi

National Institutes of Biomedical Innovation, Health and Nutrition

WS09-04-P

### **TMPRSS2 mAbs inhibit any mutants of SARS-CoV-2 infection in human lung organoid *in vitro* and cynomolgus monkey *in vivo***

○ Michishige Harada<sup>1</sup>, Misako Nakayama<sup>2</sup>, Rina Hashimoto<sup>3</sup>, Takehisa Matsumoto<sup>4</sup>, Kenichi Ohtaki<sup>1,2</sup>, Natsuki Kojima<sup>1</sup>, Natsumi Yoneda<sup>1</sup>, Mikako Shirouzu<sup>4</sup>, Kazuo Takayama<sup>3</sup>, Yasushi Itoh<sup>2</sup>, Takashi Saito<sup>1</sup>

<sup>1</sup>RIKEN Center for Integrative Medical Science (IMS), <sup>2</sup>Shiga Univ. of Medical Science, <sup>3</sup>Center for iPS Cell Research and Application (CiRA), Kyoto Univ., <sup>4</sup>RIKEN Center for Biosystems Dynamics Research (BDR)

WS09-05-P

### **Production and characterization of the single-chain anti-spike antibody that reacts with the spike protein of Wuhan and all variant strains of SARS-CoV-2**

○ Tingyu Gao, Atsushi Irie, Takahisa Kouwaki, Hiroyuki Oshiumi

Dep Immunol, Grad Sch Med Sci, Kumamoto university

WS09-06-O/P

### **Interclonal B-cell competition for SARS-CoV-2 spike receptor-binding site limits cross-neutralizing memory B cell reactivation**

○ Yu Adachi, Ryutarō Kotaki, Saya Moriyama, Keisuke Tonouchi, Taishi Onodera, Kazutaka Terahara, Tomohiro Takano, Ayae Nishiyama, Takayuki Matsumura, Masanori Isogawa, Yoshimasa Takahashi

Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Japan

WS09-07-P

### **Low induction efficiency of anti-SARS-CoV-2 spike IgA antibodies at the upper respiratory tract by intranasal immunization**

○ Kaori Sano, Hideki Asanuma, Kei Miyakawa, Hideki Hasegawa

National Institute of Infectious Diseases

WS09-08-O/P

### **Comprehensive analysis of nasal IgA antibodies induced by intranasal administration of the SARS-CoV-2 spike protein**

○ Nobuyuki Kurosawa<sup>1</sup>, Hideki Tani<sup>2</sup>, Seiichi Koike<sup>1</sup>, Masaharu Isobe<sup>1</sup>

<sup>1</sup>University of Toyama, <sup>2</sup>Toyama Institute of Health

WS09-09-O/P

### **Molecular basis of SARS-CoV-2 spike escape from HLA-A\*24:02-restricted T cell receptor**

○ Chihiro Motozono<sup>1</sup>, Aaron Wall<sup>2</sup>, Mako Toyoda<sup>1</sup>, Hiroshi Hamana<sup>2</sup>, Keiko Udaka<sup>3,4</sup>, Pierre J Rizkallah<sup>2</sup>, Hiroyuki Kishi<sup>2</sup>, Andrew K Sewell<sup>2</sup>, Takamasa Ueno<sup>1</sup>

<sup>1</sup>Kumamoto University, Joint research center for Human Retrovirus infection, Division of Infection and Immunity, <sup>2</sup>Cardiff University, School of Medicine, Division of Infection and Immunity, <sup>3</sup>Toyama University, Academic Assembly, Faculty of Medicine, Department of Immunology, <sup>4</sup>Kochi University, Department of Immunology



WS09-10-P

### **Inhibition of FAS-mediated necroptosis in alveolar epithelial cell suppresses lung injury and subsequent inflammasome activation in murine COVID-19 model**

○ Yoji Komiya<sup>1,2</sup>, Mari Kamiya<sup>1</sup>, Tadashi Hosoya<sup>1,2</sup>, Seiya Oba<sup>1,2</sup>, Daisuke Kawata<sup>1</sup>, Hideyuki Iwai<sup>1,2</sup>, Sho Miyamoto<sup>2</sup>, Takayuki Kanno<sup>2</sup>, Akira Ainal<sup>2</sup>, Tadaki Suzuki<sup>2</sup>, Hideki Hasegawa<sup>3</sup>, Shinsuke Yasuda<sup>1</sup>

<sup>1</sup>Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University (TMDU), <sup>2</sup>Department of Pathology, National Institute of Infectious Diseases, <sup>3</sup>Center for Influenza and Respiratory Virus Research, National Institute of Infectious Diseases

WS09-11-P

### **Suppression of type I interferon signaling in myeloid cells by autoantibodies in severe COVID-19 patients**

○ Atsushi Sasaki<sup>1,2</sup>, Ami Aoki<sup>1</sup>, Chiaki Iwamura<sup>1</sup>, Masahiro Kiuchi<sup>1</sup>, Kaori Tsuji<sup>1</sup>, Takahisa Hishiyama<sup>1</sup>, Rui Hirasawa<sup>1</sup>, Kota Kokubo<sup>1</sup>, Atsushi Onodera<sup>1</sup>, Takuji Suzuki<sup>2</sup>, Toshinori Nakayama<sup>3</sup>, Kiyoshi Hirahara<sup>1</sup>

<sup>1</sup>Department of Immunology, Graduate School of Medicine, Chiba University, <sup>2</sup>Department of Respiriology, Graduate School of Medicine, Chiba University, <sup>3</sup>Chiba University

WS09-12-P

### **Multimodal single-cell RNA-sequencing in 148 Japanese identified pathophysiological and host genetic involvement of innate immune cells in COVID-19 severity**

○ Ryuya Edahiro<sup>1</sup>, Yuya Shirai<sup>1,2</sup>, Yusuke Takeshima<sup>2</sup>, Shuhei Sakakibara<sup>2</sup>, Yuta Yamaguchi<sup>1,2</sup>, Teruaki Murakami<sup>1,2</sup>, Takayoshi Morita<sup>1,2</sup>, Yasuhiro Kato<sup>1,2</sup>, Yoshihiko Tomofuji<sup>1,3,4</sup>, Daisuke Okuzaki<sup>2</sup>, Atsushi Kumanogoh<sup>1,2</sup>, Yukinori Okada<sup>1,2,3,4</sup>

<sup>1</sup>Osaka University Graduate School of Medicine, <sup>2</sup>Immunology Frontier Research Center (WPI-IFReC), Osaka University, <sup>3</sup>Graduate School of Medicine, The University of Tokyo, <sup>4</sup>RIKEN Center for Integrative Medical Sciences

WS09-13-P

### **FOXO1 inhibitor has the anti-viral and anti-inflammatory effects against SARS-CoV-2 infection in in vitro and in vivo models**

○ Ryutaro Furukawa<sup>1</sup>, Noriko Oujii-Sageshima<sup>1</sup>, Masahiro Kitabatake<sup>1</sup>, Atsushi Hara<sup>1</sup>, Shigeyuki Shichino<sup>2</sup>, Satoshi Ueha<sup>2</sup>, Kouji Matsushima<sup>2</sup>, Toshihiro Ito<sup>1</sup>

<sup>1</sup>Department of Immunology, Nara Medical University, <sup>2</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science

WS09-14-O/P

### **ARNAX is a desirable adjuvant for a prophylactic vaccine against COVID-19 to enhance antigen-specific CD4<sup>+</sup> and CD8<sup>+</sup> T cell responses and neutralizing antibody induction**

○ Tomomi Kawakita<sup>1,2</sup>, Toshiki Sekiya<sup>2,3,4</sup>, Yayoi Kameda<sup>5</sup>, Naoki Nomura<sup>3,6</sup>, Marumi Ohno<sup>2,3</sup>, Chimuka Handabile<sup>2,3</sup>, Masashi Shingai<sup>1,2,3,4</sup>, Yasuhiko Suzuki<sup>2,5</sup>, Hiroshi Kida<sup>1,2,3,4</sup>, Misako Matsumoto<sup>1,7,8</sup>, Tsukasa Seya<sup>1,7,8</sup>

<sup>1</sup>Division of Vaccine Immunology, International Institute for Zoonosis Control, Hokkaido University, <sup>2</sup>Institute for Vaccine Research and Development (HU-IVReD), Hokkaido University, <sup>3</sup>Division of Biologics Development, International Institute for Zoonosis Control, Hokkaido University, <sup>4</sup>International Collaboration Unit, International Institute for Zoonosis Control, Hokkaido University, <sup>5</sup>Division of Bioresources, International Institute for Zoonosis Control, Hokkaido University, <sup>6</sup>Division of International Research Promotion, International Institute for Zoonosis Control, Hokkaido University, <sup>7</sup>Department of Vaccine Immunology, Graduate School of Medicine, Hokkaido University, <sup>8</sup>Nebuta Research Institute for Life Sciences, Aomori University

WS09-15-P

### **Consecutive BNT162b2 mRNA vaccination induces TLR4 tolerance in the innate immune system**

○ Yuta Yamaguchi<sup>1,2</sup>, Yasuhiro Kato<sup>2</sup>, Atsushi Kumanogoh<sup>2</sup>

<sup>1</sup>Division of Pharmacology, Graduate School of Medicine, Kobe University, <sup>2</sup>Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University

WS09-16-P

### **Regnase-1 haploinsufficiency restricted SARS-CoV-2 pneumonia in mice by altering the immune responses in the lung**

○ Kotaro Tanaka, Keiko Yasuda, Junichi Aoki, Osamu Takeuchi

Department of Medical Chemistry, Graduate School of Medicine, Kyoto University

WS09-17-P

### **Analysis of S-specific T cell responses after SARS-CoV-2 mRNA vaccines in people living with HIV**

○ Ai Kawana-Tachikawa<sup>1,2,3</sup>, Thi Thu Thao Dang<sup>1,2</sup>, Alitzel Anzurez<sup>1,2</sup>, Kaori Nakayama-Hosoya<sup>1</sup>, Aki Tanabe<sup>1</sup>, Yukihiro Yoshimura<sup>4</sup>, Natsuo Tachikawa<sup>4</sup>, Tetsuro Matano<sup>1,2,3</sup>

<sup>1</sup>National Institute of Infectious Diseases, <sup>2</sup>Joint Research Center for Human Retrovirus Infection, <sup>3</sup>Institute of Medical Science, University of Tokyo, <sup>4</sup>Yokohama Municipal Citizens' Hospital

WS09-18-P

### **Pro-inflammatory cytokine production after SARS-CoV-2 infection in people living with HIV**

○ Alitzel Anzurez<sup>1,2</sup>, Lucky Runtuwene<sup>1</sup>, Thi Thu Thao Dang<sup>1,2</sup>, Kaori Hosoya-Nakayama<sup>1</sup>, Aki Tanabe<sup>1</sup>, Michiko Koga<sup>4</sup>, Yukihiko Yoshimura<sup>5</sup>, Natsuo Tachikawa<sup>5</sup>, Tetsuro Matano<sup>1,2,3</sup>, Ai Kawana-Tachikawa<sup>1,2,3</sup>

<sup>1</sup>AIDS Research Center, National Institute of Infectious Diseases, Tokyo, Japan, <sup>2</sup>Joint Research Center for Human Retrovirus Infection, Kumamoto, Japan, <sup>3</sup>Department of AIDS Vaccine Development, Institute of Medical Science, University of Tokyo, Tokyo, Japan, <sup>4</sup>Division of Infectious Diseases, Advanced Clinical Research Center, Institute of Medical Science, University of Tokyo, Tokyo, Japan, <sup>5</sup>Department of Infectious Diseases, Yokohama Municipal Citizens' Hospital, Kanagawa, Japan

WS09-19-P

### **Characterization of early induced HIV-specific functional antibody (ANRS C06 Primo Cohort)**

○ Li-Yun Lin<sup>1</sup>, Julie Lucas<sup>1</sup>, Nicodème Paul<sup>1</sup>, Géraldine Laumond<sup>1</sup>, Sylvie Schmidt<sup>1</sup>, Asma Essat<sup>2</sup>, Laurence Meyer<sup>2,3</sup>, Cécile Goujard<sup>2,4</sup>, Seiamak Bahram<sup>1,5</sup>, Christiane Moog<sup>1,6</sup>

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WS09-20-P

### **Characterization of MARCH2 protein and its anti-HIV-1 functions**

○ Supawadee Umthong<sup>1,2</sup>, Uddhav Timilsina<sup>2</sup>, Mary D'Angelo<sup>2</sup>, Spyridon Stavrou<sup>2</sup>

<sup>1</sup>Department of Biochemistry and Microbiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand, <sup>2</sup>Department of Microbiology and Immunology, Jacobs School of Medicine and Biomedical Sciences, SUNY, University at Buffalo, NY, United States

WS09-21-P

### **Molecular basis for the regulation of host T cell function by the HIV-2 Nef protein**

○ Ryota Koseki<sup>1</sup>, Idai Ozawa<sup>1</sup>, Kengo Hirao<sup>1</sup>, Takashi Tadokoro<sup>2</sup>, Sophie Andrews<sup>3</sup>, Sarah Rowland-Jones<sup>3</sup>, Kimiko Kuroki<sup>1</sup>, Katsumi Maenaka<sup>1</sup>

<sup>1</sup>Hokkaido Univ., <sup>2</sup>Sanyo-Onoda City Univ., <sup>3</sup>University of Oxford

WS09-22-O/P

### **High levels of Gas6 induced by cellular senescence in aged mice cause severe infections**

○ Yukie Kure, Takehiko Shibata

Tokyo Medical University

WS09-23-O/P

### **Modulation of lipid metabolism by regulating SCD2 activation induced augmentation of anti-viral response**

○ Toshio Kanno, Yusuke Endo, Keisuke Miyako

Kazusa DNA Research Institute, Laboratory of Medical Omics Research

WS09-24-P

### **Immunization with inactivated whole influenza virus particle vaccines improves the humoral response landscape in cynomolgus macaques**

○ Toshiki Sekiya<sup>1,2,3,4</sup>, Brendon Y Chua<sup>2,4</sup>, Marios Koutsakos<sup>4</sup>, Naoki Nomura<sup>1</sup>, Louise C Rowntree<sup>4</sup>, Thi H. O Nguyen<sup>4</sup>, Marumi Ohno<sup>1,3</sup>, Masafumi Endo<sup>5</sup>, Amy W Chung<sup>4</sup>, Masashi Shingai<sup>1,2,3</sup>, Katherine Kedzierska<sup>2,3,4</sup>, Hiroshi Kida<sup>1,2,3</sup>

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WS09-25-P

### **Pulmonary immunization of adenovirus-vectored vaccines induces a higher and more durable humoral immune response than the parental vaccines with the local generation of plasma cells in the lung**

○ Toshiro Hirai<sup>1,2,3,4</sup>, Koki Ueda<sup>2,3</sup>, So-ichiro Hashimoto<sup>2,3</sup>, Kazuo Takayama<sup>5</sup>, Yasuo Yoshioka<sup>1,2,3,4,6,7,8</sup>

<sup>1</sup>Institute for Open and Transdisciplinary Research Initiatives, Osaka University, <sup>2</sup>Vaccine Creation Group, Research Institute for Microbial Diseases, Osaka University, <sup>3</sup>Laboratory of Nano-design for Innovative Drug Development, Graduate School of Pharmaceutical Sciences, Osaka University, <sup>4</sup>Center for Advanced Modalities and DDS, Osaka University, <sup>5</sup>Center for iPS Cell Research and Application, Kyoto University, <sup>6</sup>The Research Foundation for Microbial Diseases of Osaka University, <sup>7</sup>Global Center for Medical Engineering and Informatics, Osaka University, <sup>8</sup>Center for Infectious Disease Education and Research, Osaka University

WS09-26-P

### **A highly active form of XCL1 predominantly induces central memory CD8<sup>+</sup> T cells by recruiting cDC1 migration to draining lymph nodes without strong activation**

○ Kazuhiko Matsuo<sup>1</sup>, Momo Kamei<sup>1</sup>, Shiki Takamura<sup>2</sup>, Osamu Yoshie<sup>3,4</sup>, Takashi Nakayama<sup>1</sup>

<sup>1</sup>Div. Chemother., Kindai Univ. Fac. Pharm., <sup>2</sup>RIKEN-IMS, <sup>3</sup>Kindai Univ. Fac. Med., <sup>4</sup>Kampo Health Inst.

## WS10 Effector differentiation and function of T cells

WS10-01-P

### TCR-pMHC complex formation triggers CD3 dynamics

○ Floris J. van Eerden<sup>1</sup>, Aalaa Alrahman Sherif<sup>2</sup>, Hendra S. Ismanto<sup>2</sup>, Mara Anais Llamas-Covarrubias<sup>2</sup>, Arthur Millius<sup>1</sup>, Xiuyuan Lu<sup>3</sup>, Shigenari Ishizuka<sup>4</sup>, Sho Yamasaki<sup>3,4</sup>, Daron M. Standley<sup>2</sup>

<sup>1</sup>Department of Systems Immunology, Immunology Frontier Research Center, Osaka University, 3-1 Yamadaoka, Suita, 565-0871, Japan,

<sup>2</sup>Department of Genome Informatics, Research Institute for Microbial Diseases, Osaka University, 3-1 Yamadaoka, Suita, 565-0871, Japan,

<sup>3</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center, Osaka University, 3-1 Yamadaoka, Suita, 565-0871, Japan,

<sup>4</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, 3-1 Yamadaoka, Suita, 565-0871, Japan

WS10-02-O/P

### CD4/CD8 coreceptor binding to MHCs positively regulate CAR-T cell response via translocation of Lck into CAR microclusters

○ Hiroaki Machiyama<sup>1</sup>, Ei Wakamatsu<sup>1</sup>, Arata Takeuchi<sup>1</sup>, Hitoshi Nishijima<sup>1</sup>, Maksim Mamonkin<sup>2</sup>, Malcolm K Brenner<sup>2</sup>, Tadashi Yokosuka<sup>1</sup>

<sup>1</sup>Department of Immunol, Tokyo Medical University, <sup>2</sup>Center for Cell and Gene Therapy, Baylor College of Medicine

WS10-03-P

### Fine tuning of T cell activation by multistep regulation of CD6 and its ligand CD166

○ Arata Takeuchi, Tatsushi Nishikawa, Hiroaki Machiyama, Ei Wakamatsu, Hitoshi Nishijima, Masae Furuhashi, Hiroko Toyota, Ryohei Matsushima, Yosuke Yoshida, Tadashi Yokosuka

Department of immunology, Tokyo Medical University

WS10-04-P

### STAP-2-derived peptide suppresses TCR-mediated T cell activation and experimental autoimmune encephalomyelitis

○ Shoya Kawahara<sup>1</sup>, Yuto Sasaki<sup>1</sup>, Tepei Takeda<sup>1</sup>, Fumiya Okuyama<sup>1</sup>, Jun-ichi Kashiwakura<sup>2</sup>, Kenji Oritani<sup>3</sup>, Tadashi Matsuda<sup>1</sup>

<sup>1</sup>Department of immunology, Graduate school of Pharmaceutical Sciences, Hokkaido University, <sup>2</sup>Department of Life Sciences, Faculty of Pharmaceutical Sciences, Hokkaido University of Science, <sup>3</sup>Department of Hematology, International University of Health and Welfare

WS10-05-P

### The Arf pathway maintains T cell survival during activation by modulating the level of mTORC1 signal

○ Mami Sumiyoshi<sup>1</sup>, Yui Kotani<sup>1,2</sup>, Satoshi Matsuda<sup>1</sup>

<sup>1</sup>Dept of Cell Signaling, Inst. of Biomed. Sci., Kansai Med.Univ., <sup>2</sup>Dep. Vasc Phys., NCVC

WS10-06-P

### RIPK1 blocks T cell senescence mediated by RIPK3 and caspase-8

○ Takayuki Imanishi<sup>1,2</sup>, Takashi Saito<sup>2</sup>

<sup>1</sup>Kitasato University, <sup>2</sup>RIKEN

WS10-07-P

### Rap1-Talin1 axis facilitates front-back cell polarity independent of talin1 binding to integrins in lymphocytes

○ Yoshihiro Ueda<sup>1</sup>, Koichiro Higasa<sup>2</sup>, Yuji Kamioka<sup>1</sup>, Naoyuki Kondo<sup>1</sup>, Shunsuke Horitani<sup>3</sup>, Yoshiki Ikeda<sup>1</sup>, Wolfgang Bergmeier<sup>4</sup>, Yoshinori Fukui<sup>5</sup>, Tatsuo Kinashi<sup>1</sup>

<sup>1</sup>Department of Molecular Genetics, Kansai Medical University, <sup>2</sup>Department of Genome Analysis, Kansai Medical University, <sup>3</sup>The third Department of Internal Medicine, Kansai Medical University, <sup>4</sup>Department of Biochemistry and Biophysics, Blood Research Center, University of North Carolina, Chapel Hill, NC, USA., <sup>5</sup>Division of Immunogenetics, Department of Immunobiology and Neuroscience, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan. PMID: 37520697 PMCID: PMC10374465

WS10-08-O/P

### Rap1-GAPs Rasa3 and Sipa1 are required for pulmonary transit and egress from the lymph nodes in T cells

○ Shunsuke Horitani, Yoshihiro Ueda, Yuji Kamioka, Naoyuki Kondo, Makoto Naganuma, Tatsuo Kinashi  
Kansai Medical Univ.

WS10-09-O/P

### miRNA-200c-3p controls alpha4beta7 integrin-mediated T-cell adhesion and migration

○ Khwanchanok Mokmued, Gideon Obeng, Eri Matsuo, Arong Gaowa, Motomu Shimaoka, Eun Jeong Park  
Mie University Graduate School of Medicine

WS10-10-P

### **Fatty acid prevents functional cytotoxic T lymphocyte maturation, but not effector functions, by suppression of IL-2 production**

○ Hidefumi Kojima

Division for Technical Support, Center for Research Collaboration and Support, Dokkyo Medical Univ. Sch. of Med.

WS10-11-P

### **Characteristics of LAMP assay for detecting tumor-reactive CD8<sup>+</sup> T cells**

○ Haruka Shimizu, Hiroyasu Aoki, Mikiya Tsunoda, Masaki Kurosu, Haru Ogiwara, Kouji Matsushima, Satoshi Ueha

Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, Tokyo, Japan

WS10-12-P

### **The expression and functional role of cytotoxicity-associated molecule, Nkg7, in murine CD4<sup>+</sup> T cells**

○ Yui Hirao, Ayaka Misawa, Ritsuki Tanabe, Yuka Okabe, Hiroaki Takimoto, Koji Eshima

Kitasato University school of science

WS10-13-O/P

### **CD47 promotes peripheral T cell survival by preventing dendritic cell-mediated T cell necroptosis**

○ Satomi Komori<sup>1)</sup>, Yasuyuki Saito<sup>2)</sup>, Tania Afroj<sup>2)</sup>, Tomoko Takai<sup>1)</sup>, Okechi S Oduori<sup>1)</sup>, Takenori Kotani<sup>2)</sup>, Yoji Murata<sup>2)</sup>, Takashi Matozaki<sup>1)</sup>

<sup>1)</sup>Division of Biosignal Regulation, Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine, <sup>2)</sup>Division of Molecular and Cellular Signaling, Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine

WS10-14-O/P

### **Epitranscriptomic shaping of signal transduction controls the development, activation and survival of T cells**

○ Taku Kureha, Vigo Heissmeyer

Ludwig-Maximilians-Universität in Munich

WS10-15-P

### **The effectiveness of traditional Thai massage to reduce the percentage of atypical CD4<sup>+</sup> T cells and proinflammatory cytokines in elderly population**

○ Amonrat Jumnainsong<sup>1,2)</sup>, Kanda Sornkayasi<sup>1,2)</sup>, Uki Wulanggita<sup>1,2)</sup>, Wisitsak Phoksawat<sup>3)</sup>, Wichai Eungpinichpong<sup>4)</sup>, Chanvit Leelayuwat<sup>1,2)</sup>

<sup>1)</sup>School of Medical Technology, Faculty of Associated Medical Sciences, Khon Kaen University, Khon Kaen, Thailand, <sup>2)</sup>The Centre for Research and Development of Medical Diagnostic Laboratories (CMDL), Faculty of Associated Medical Sciences, Khon Kaen University, Khon Kaen, Thailand, <sup>3)</sup>Department of Microbiology, Faculty of Medicine, Khon Kaen University, Khon Kaen, Thailand, <sup>4)</sup>School of Physical Therapy, Faculty of Associated Medical Sciences, Khon Kaen University, Khon Kaen, Thailand

WS10-16-O/P

### **Stress-induced glucocorticoids exacerbate inflammatory diseases by promoting Th17 cell differentiation**

○ Akihiro Shimba<sup>1)</sup>, Koichi Ikuta<sup>2)</sup>

<sup>1)</sup>Department of Human Health Sciences, Graduate School of Medicine, Kyoto University, <sup>2)</sup>Laboratory of Immune Regulation, Department of Virus Research, Institute for Life and Medical Sciences, Kyoto University

WS10-17-P

### **Is the regulatory activity of TRAF5 for IL-6 receptor signaling important for the differentiation of follicular helper T cells?**

○ Mari Hikosaka-Kuniishi<sup>1)</sup>, Sayaka Ogawara<sup>1)</sup>, Chieri Iwata<sup>1)</sup>, Tomomi Wakaizumi<sup>1)</sup>, Hodaka Nagai<sup>1)</sup>, Mitsuki Azuma<sup>1)</sup>, Masashi Morita<sup>1)</sup>, Naoto Ishii<sup>2)</sup>, Takanori So<sup>1)</sup>

<sup>1)</sup>Laboratory of Molecular Cell Biology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan, <sup>2)</sup>Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Japan

WS10-18-P

### **Bob1 maintains T follicular helper cells for long-term humoral immunity**

○ Ippei Ikegami<sup>1)</sup>, Masahiro Yanagi<sup>1,2)</sup>, Taiki Sato<sup>1)</sup>, Ryuta Kamekura<sup>1)</sup>, Hirofumi Chiba<sup>2)</sup>, Shingo Ichimiya<sup>1)</sup>

<sup>1)</sup>Department of Human Immunology, Research Institute for Frontier Medicine, Sapporo Medical University School of Medicine, <sup>2)</sup>Department of Respiratory Medicine and Allergology, Sapporo Medical University School of Medicine

WS10-19-P

### **A novel mouse model for functional analysis of various genes in follicular helper cells**

○ Kouhei Ohba<sup>1)</sup>, Mahoro Osanai<sup>1)</sup>, Shuhei Ogawa<sup>2)</sup>, Yohsuke Harada<sup>1)</sup>

<sup>1)</sup>Faculty of Pharmaceutical Sciences, Tokyo University of Science, <sup>2)</sup>Research Institute for Biomedical Sciences, Tokyo University of Science

WS10-20-P

### **Memory-like T cells induced in serum-free cultures**

○ Yasuhito Tokumoto, Yasuto Araki

Saitama Medical University

WS10-21-P

**Sialyl Lewis X glycan antigen: A cell surface marker of activated and functional regulatory T cells in mice**

○ Kanae Ohishi, Asaki Ishikura, Shogo Nishida, Hirohito Abo, Hiroko Nakatsukasa, Hiroto Kawashima  
Laboratory of microbiology and immunology, Graduate school of pharmaceutical science, Chiba University

WS10-22-P

**T-B doublet formation represents early signs of antigen-specific T cell activation**

○ Naoko Ikuta<sup>1</sup>, Yuka Nakajima<sup>1</sup>, Toyoko Katayama<sup>2</sup>, Yukako Kamita<sup>1</sup>, Hitoshi Uga<sup>2</sup>, Tasuku Honjo<sup>3</sup>, Akio Ohta<sup>1</sup>  
<sup>1</sup>Department of Immunology, Foundation for Biomedical Research and Innovation at Kobe, Kobe, Japan, <sup>2</sup>Central Research Laboratories, Sysmex Corporation, Kobe, Japan, <sup>3</sup>Department of Immunology and Genomic Medicine, Center for Cancer Immunotherapy and Immunobiology, Graduate School of Medicine, Kyoto University, Kyoto, Japan

WS10-23-P

**Structural and functional characterization of recombinant OX40 ligand fusion proteins**

○ Ayaka Sato<sup>1</sup>, Mitsuki Azuma<sup>1</sup>, Hodaka Nagai<sup>1</sup>, Aya Ito<sup>1</sup>, Masashi Morita<sup>1</sup>, Mari Hikosaka Kuniishi<sup>1</sup>, Naoto Ishii<sup>2</sup>, Takanori So<sup>1</sup>  
<sup>1</sup>Laboratory of Molecular Cell Biology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan, <sup>2</sup>Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Japan

WS10-24-P

**Functional characterization of antibody fusion-single-chain TNF proteins that agonize costimulatory TNFR expressed by T cells**

○ Hodaka Nagai<sup>1</sup>, Mitsuki Azuma<sup>1</sup>, Ayaka Sato<sup>1</sup>, Sayaka Ogawara<sup>1</sup>, Yuta Tsutsui<sup>1</sup>, Ayano Suzuki<sup>1</sup>, Shimpei Matsuyama<sup>1</sup>, Tomomi Wakaizumi<sup>1</sup>, Masashi Morita<sup>1</sup>, Mari Hikosaka-Kuniishi<sup>1</sup>, Naoto Ishii<sup>2</sup>, Takanori So<sup>1</sup>  
<sup>1</sup>Laboratory of Molecular Cell Biology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan, <sup>2</sup>Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Japan

WS10-25-P

**Basic characterization of TNF ligand-based agonists targeting OX40, 4-1BB, CD27, and GITR expressed by T cells**

○ Takanori So<sup>1</sup>, Hodaka Nagai<sup>1</sup>, Mitsuki Azuma<sup>1</sup>, Ayaka Sato<sup>1</sup>, Ayano Suzuki<sup>1</sup>, Aya Ito<sup>1</sup>, Masashi Morita<sup>1</sup>, Mari Hikosaka-Kuniishi<sup>1</sup>, Naoto Ishii<sup>2</sup>  
<sup>1</sup>Grad Sch Med Pharm Sci, Univ of Toyama, <sup>2</sup>Tohoku Univ Grad Sch Med

WS10-26-O/P

**Sulfated bile acid is a self-antigen for MAIT cells required for their development and maintenance**

○ Emi Ito<sup>1,2</sup>, Ami Takeyama<sup>1,2</sup>, Eri Ishikawa<sup>1,2</sup>, Sho Yamasaki<sup>1,2</sup>  
<sup>1</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Japan, <sup>2</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center, Osaka University, Suita, Japan

WS10-27-O/P

**An unconventional death: Impact of necroptotic cell death machinery on mucosal-associated invariant T cell abundance**

○ Timothy Patton<sup>1</sup>, Zhe Zhao<sup>1</sup>, Nazli Somuncuoglu<sup>1</sup>, Eleanor Eddy<sup>1</sup>, Huimeng Wang<sup>1</sup>, Jeremy Le<sup>1</sup>, Sidonia B G Eckle<sup>1</sup>, Michael N T Souter<sup>1</sup>, James McCluskey<sup>1</sup>, Zhenjun Chen<sup>1</sup>, Kate E Lawlor<sup>2,3,4,5</sup>, Alexandra J Corbett<sup>1</sup>  
<sup>1</sup>Department of Immunology and Microbiology, University of Melbourne at the Peter Doherty Institute for Infection and Immunity, Melbourne, Australia, <sup>2</sup>Centre for Innate Immunity and Infectious Diseases, Hudson Institute of Medical Research, Department of Molecular and Translational Science, Monash University, Clayton, Australia, <sup>3</sup>Walter and Eliza Hall Institute of Medical Research, Parkville, Australia, <sup>4</sup>Department of Medical Biology, University of Melbourne, Parkville, Australia, <sup>5</sup>Department of Molecular and Translational Science, Monash University, Clayton, Australia

## January 18

### WS11 Cellular basis for the development of pathogenic or tissue-resident macrophages

WS11-01-O/P

**Identification of osteal macrophages subset with pathological function in bone as a potential target for treatment of postmenopausal osteoporosis**

○ Alaa Terukawa, Yoshio Nishida, Norimasa Iwasaki  
Department of Orthopedic Surgery, School of Medicine, Hokkaido University

WS11-02-O/P

**PCBP1 acts as a regulator of CCL2 expression in macrophages to induce recruitment of monocyte-derived macrophages into the inflamed colon**

○ Nobuyuki Onai<sup>1</sup>, Xinquan Yang<sup>1</sup>, Toshiki Yabe-Wada<sup>1</sup>, Jia Han<sup>2</sup>, Fumiji Saito<sup>1</sup>, Chie Ogasawara<sup>1</sup>, Sohsuke Yamada<sup>2</sup>  
<sup>1</sup>Department of Immunology, Kanazawa Medical University, <sup>2</sup>Department of Pathology and Laboratory Medicine, Kanazawa Medical University

WS11-03-O/P

**Polarization of M2 macrophages and development of renal fibrosis are caused by transglutaminase, a protein cross-linking enzyme**

○ Hideki Tatsukawa, Yoshiki Shinoda, Kiyotaka Hitomi  
Cellular Biochemistry Lab., Graduate School of Pharmaceutical Sciences, Nagoya University

WS11-04-P

**Macrophages transform amnion mesenchymal cells into myofibroblasts in intrauterine bleeding (subchorionic hematoma) during pregnancy**

○ Eriko Yasuda, Mogami Haruta, Sunao Matsuzaka, Yu Matsuzaka, Asako Inohaya, Takahito Takakura, Yoshitsugu Kawamura, Masaki Mandai  
Kyoto University Graduate School of Medicine Department of Gynecology and Obstetrics

WS11-05-O/P

**EGR2 plays a pivotal role in the differentiation of Ly6C<sup>hi</sup> monocytes into fibrosis-promoting macrophages in non-alcoholic steatohepatitis**

○ Ayaka Iwata, Natsuki Shibata, Kenichi Asano, Masato Tanaka  
Laboratory of Immune Regulation, School of Life Sciences, Tokyo University of Pharmacy and Life Sciences

WS11-06-P

**Rapid inflammatory responses might induce migration of macrophages to fetal membranes in the mouse model of intrauterine infection**

○ Yu Matsuzaka, Haruta Mogami, Sunao Matsuzaka, Eriko Yasuda, Asako Inohaya, Masahito Takakura, Yoshitsugu Chigusa, Masaki Mandai  
Department of Gynecology and Obstetrics, Kyoto University Graduate School of Medicine

WS11-07-P

**CCR2/5-associated FROUNT regulates macrophage cytokine expression through modulation of MAP kinase pathway**

○ Etsuko Toda<sup>1,2</sup>, Kouji Matsushima<sup>2</sup>, Yuya Terashima<sup>2</sup>, Akira Shimizu<sup>1</sup>  
<sup>1</sup>Nippon Medical School, <sup>2</sup>Tokyo University of Science

WS11-08-P

**Modulation of gut microbiota by antibiotics treatment affect the development of liver inflammation and fibrosis in a novel dietary mouse model of NASH**

○ Shun Takano<sup>1</sup>, Yukihiko Furusawa<sup>1</sup>, Koichi Tsuneyama<sup>2</sup>, Yoshinori Nagai<sup>1</sup>  
<sup>1</sup>Department of Biological and Pharmaceutical Engineering, Toyama Prefectural University, <sup>2</sup>Department of Pathology and Laboratory Medicine, Tokushima University Graduate School

WS11-09-P

**Csf1-producing cell contributes to the maintenance of macrophage in Peyer's patches**

○ Xiaojun Li<sup>1,2</sup>, Daichi Nonaka<sup>1</sup>, Eriko Sumiya<sup>1</sup>, Shinichiro Sawa<sup>1</sup>  
<sup>1</sup>Division of mucosal immunology, Medical Institute of Bioregulation, Kyushu University, <sup>2</sup>The Second Xiangya Hospital of Central South University, Research Center of Digestive Disease, Central South University

WS11-10-O/P

**RANKL-expressing cells in the primary ossification center functions as an osteoclast niche during early bone marrow development**

○ Eriko Sumiya<sup>1,2</sup>, Shinichiro Sawa<sup>2</sup>  
<sup>1</sup>University of Tokyo, <sup>2</sup>Kyushu University

WS11-11-O/P

**Identification of CSF1-producing cells required for the maintenance of intestinal macrophages**

○ Daichi Nonaka<sup>1</sup>, Soichiro Yoshida<sup>1</sup>, Eriko Sumiya<sup>2</sup>, Shinichiro Sawa<sup>1</sup>  
<sup>1</sup>Division of Mucosal Immunology, Research Center for Systems Immunology, Medical Institute of Bioregulation, Kyushu University, <sup>2</sup>Department of Orthopedic Surgery, Faculty of Medicine, The University of Tokyo, Tokyo, Japan

WS11-12-P

**Enhanced production of macrophages from human induced pluripotent stem cells by exogenous FLT3 activation**

○ Kenji Kitajima<sup>1</sup>, Hikaru Ando<sup>1,2</sup>, Takahiko Hara<sup>1,2,3</sup>  
<sup>1</sup>Tokyo Metropolitan Institute of Medical Science, <sup>2</sup>Tokyo Medical and Dental Univ., <sup>3</sup>Tokyo Metropolitan Univ.

WS11-13-P

**Induction of unique macrophage subset by simultaneous stimulation with LPS and IL-4**

○ Kei Ishida<sup>1,2</sup>, Takahiro Nagatake<sup>1,3</sup>, Azusa Saika<sup>1,4</sup>, Koji Hosomi<sup>1</sup>, Jun Kunisawa<sup>1,2</sup>  
<sup>1</sup>National Institutes of Biomedical Innovation, Health, and Nutrition, <sup>2</sup>Osaka University, <sup>3</sup>Meiji University, <sup>4</sup>Agency for Science, Technology and Research

WS11-14-O/P

### **Characterization of bone marrow-derived macrophages induced in a CSFRs-independent but TREM2-dependent manner**

○ Shin-ei Matsumoto, Hiromitsu Hara

Department of Immunology, Kagoshima University Graduate School of Medical and Dental Sciences

WS11-15-P

### ***In vitro* differentiation of a cell line into macrophage-like cells for cell-dynamics analysis**

○ Akira Yamauchi<sup>1)</sup>, Shuichiro Okamoto<sup>1)</sup>, Kei Miyano<sup>2)</sup>, Futoshi Kuribayashi<sup>1)</sup>

<sup>1)</sup>Kawasaki Medical School, Department of Biochemistry, <sup>2)</sup>Kawasaki Medical School, Department of Natural Sciences

WS11-16-P

### **The characterization of cultured common lymphoid progenitor-derived monocytic cells (cCLP-M)**

○ Yohei Kawano, Mizuki Moriyama, Shun Ohki, Yasuo Kitajima, Tomoharu Yasuda

Department of Immunology, Graduate School of Biomedical and Health Sciences, Hiroshima University

WS11-17-O/P

### **Development of a novel VeDTR mice for labelling and removal of alveolar macrophages**

○ Yuki Nakayama, Masahiro Yamamoto

Department of Infectious Diseases, Research Institute for Microbial Diseases, Osaka University, Japan

WS11-18-P

### **Unique cell harvesting technology by using UpCell<sup>®</sup> without trypsinization**

○ Yuzo Kasuya, Asumi Yoshihara, Eriko Ikeda

CellSeed Inc.

## January 18

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### **WS12 Autoimmunity in arthritis and Fibrosis**

WS12-01-O/P

#### **Function of ectopic MHC class II expression on non-immune cells in immune response**

○ Wataru Nakai<sup>1,2)</sup>, Yuta Shimizu<sup>1,2)</sup>, Masako Kohyama<sup>1,3)</sup>, Hisashi Arase<sup>1,2,3)</sup>

<sup>1)</sup>Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University, <sup>2)</sup>Laboratory of Immunochemistry, WPI Immunology Frontier Research Center, Osaka University, <sup>3)</sup>Regulation of Host Defense Team, Center for Infectious Disease Education and Research, Osaka University

WS12-02-P

#### **Glycolysis in CD8<sup>+</sup> T cells plays a major role in the onset of HLA-mediated idiosyncratic drug-induced autoimmune toxicity mouse model**

○ Takeshi Susukida<sup>1)</sup>, Shigeki Aoki<sup>2)</sup>, Yuchen Sun<sup>3)</sup>, Yoshihiro Hayakawa<sup>1)</sup>

<sup>1)</sup>Laboratory of Cancer Biology and Immunology, Section of Host Defenses, Institute of Natural Medicine, University of Toyama, <sup>2)</sup>Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University, <sup>3)</sup>Division of Medicinal Safety Science, National Institute of Health Sciences

WS12-03-P

#### **Induction of antigen-specific Treg in vivo with mRNA**

○ Shota Imai<sup>1)</sup>, Tomoyoshi Yamano<sup>2,3)</sup>, Rikinari Hanayama<sup>2,3)</sup>

<sup>1)</sup>Department of immunology, School of Frontier Science initiative division of Nano life science, Kanazawa university, <sup>2)</sup>Department of immunology, Graduate School of Medical Sciences, Kanazawa university, <sup>3)</sup>WPI Nano Life Science Institute (NanoLSI), Kanazawa university

WS12-04-P

#### **Extracellular aaRSs drive pathogenesis of rheumatoid arthritis via cytokine and PAD4 release**

○ Akihiro Kimura, Harumi Suzuki

National Center for Global Health and Medicine

WS12-05-O/P

#### **Synovial regulatory T cells expressing ST2 deteriorate joint inflammation**

○ Koto Hattori<sup>1)</sup>, Shigeru Tanaka<sup>1)</sup>, Jun Tamura<sup>1)</sup>, Keishi Etori<sup>1)</sup>, Steven F. Ziegler<sup>2)</sup>, Hiroshi Nakajima<sup>1)</sup>

<sup>1)</sup>Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, <sup>2)</sup>Immunology Program, Benaroya Research Institute

WS12-06-P

#### **Fibroblast growth factor receptor 1 marks terminal effector peripheral T helper cells in rheumatoid arthritis patients**

○ Keishi Etori<sup>1)</sup>, Shigeru Tanaka<sup>1)</sup>, Jun Tamura<sup>1)</sup>, Koto Hattori<sup>1)</sup>, Shin-Ichiro Kagami<sup>2)</sup>, Junichi Nakamura<sup>3)</sup>, Seiji Ohtori<sup>3)</sup>, Hiroshi Nakajima<sup>1)</sup>

<sup>1)</sup>Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan, <sup>2)</sup>Research Center for Allergy and Clinical Immunology, Asahi General Hospital, Chiba, Japan, <sup>3)</sup>Department of Orthopedic Surgery, Graduate School of Medicine, Chiba University, Chiba, Japan



WS12-07-O/P

### **Parsing synovial pathology related to treatment resistance in Japanese rheumatoid arthritis patients by single-cell analysis**

○ Risa Yoshihara<sup>1</sup>, Haruka Tsuchiya<sup>1</sup>, Yasunori Omata<sup>2</sup>, Kazuyoshi Ishigaki<sup>3</sup>, Takahiro Itamiya<sup>1,4</sup>, Hiroaki Harada<sup>1</sup>, Hirofumi Shoda<sup>1</sup>, Kazuhiko Yamamoto<sup>3</sup>, Sakae Tanaka<sup>2</sup>, Tomohisa Okamura<sup>4</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, <sup>2</sup>Department of Orthopaedic Surgery, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan, <sup>3</sup>Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences, <sup>4</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

WS12-08-O/P

### **Dysregulated *NUB1* and Neddylation Enhances Rheumatoid Arthritis Fibroblast-Like Synovioocyte Inflammatory Responses via NF- $\kappa$ B Pathway**

○ Sho Sendo<sup>1,2</sup>, Camilla R.L. Machado<sup>1</sup>, David L Boyle<sup>1</sup>, Gary S Firestein<sup>1</sup>

<sup>1</sup>University of California, San Diego, <sup>2</sup>Kobe University Hospital

WS12-09-P

### **Human synovial Tph cells are pleiotropically involved in RA pathogenesis**

○ Akinori Murakami<sup>1,2</sup>, Rinko Akamine<sup>2</sup>, Takayuki Fujii<sup>1,3</sup>, Koichi Murata<sup>1,3</sup>, Kohei Nishitani<sup>1</sup>, Hiromu Ito<sup>1,3,4</sup>, Motomu Hashimoto<sup>5</sup>, Yukinori Okada<sup>6,7,8</sup>, Shuichi Matsuda<sup>1</sup>, Hideki Ueno<sup>2,9</sup>, Hiroyuki Yoshitomi<sup>2,9</sup>

<sup>1</sup>Department of Orthopaedic Surgery, Graduate School of Medicine, Kyoto University, Japan, <sup>2</sup>Department of Immunology, Graduate School of Medicine, Kyoto University, Japan, <sup>3</sup>Advanced Medicine for Rheumatic Disease, Graduate School of Medicine, Kyoto University, Japan, <sup>4</sup>Department of Orthopaedic Surgery, Kurashiki Central Hospital, Japan, <sup>5</sup>Department of Clinical Immunology, Graduate School of Medicine, Osaka Metropolitan University, Japan, <sup>6</sup>Department of Genome Informatics, Graduate School of Medicine, the University of Tokyo, Japan, <sup>7</sup>Department of Statistical Genetics, Graduate School of Medicine, Osaka University, Japan, <sup>8</sup>Laboratory for Systems Genetics, RIKEN Center for Integrative Medical Sciences, Japan, <sup>9</sup>Institute for the Advanced Study of Human Biology, Kyoto University, Japan

WS12-10-P

### **Analysis of age-related Treg changes in patients with rheumatoid arthritis and its mouse model**

○ Taihei Nishiyama, Ayako Ohyama, Haruka Miki, Hiromitsu Ashashima, Yuya Kondo, Hiroto Tsuboi, Isao Matsumoto  
Department of Rheumatology, Institute of Medicine, University of Tsukuba

WS12-11-P

### **GM-CSF-induced differentiation and activation of CCR2+ monocytes in inflamed joints exacerbates synovial inflammation in autoimmune arthritis**

○ Hiroki Mukoyama<sup>1,2</sup>, Yusuke Takeuchi<sup>1,2</sup>, Daiya Ohara<sup>1</sup>, Hitomi Watanabe<sup>1</sup>, Gen Kondoh<sup>1</sup>, Akio Morinobu<sup>2</sup>, Keiji Hirota<sup>1</sup>

<sup>1</sup>Laboratory of Integrative Biological Science, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Department of Rheumatology and Clinical Immunology, Graduate School of Medicine, Kyoto University

WS12-12-P

### **Distinct Pathogenic Mechanisms in HLA-B27-Negative Axial Spondyloarthritis: Contributions of Interferon-Activated CD4<sup>+</sup> T Cells and CD56<sup>Bright</sup> NK Cell**

○ Sotaro Nakajima<sup>1</sup>, Haruka Tsuchiya<sup>1</sup>, Risa Yoshihara<sup>1</sup>, Kazuyoshi Ishigaki<sup>1,2</sup>, Haruka Takahashi<sup>1</sup>, Tomohisa Okamura<sup>3</sup>, Kazuhiko Yamamoto<sup>4</sup>, Hiroko Kanda<sup>1,5</sup>, Hirofumi Shoda<sup>1</sup>, Tetsuya Tomita<sup>6,7</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, <sup>2</sup>Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences, <sup>3</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, <sup>4</sup>Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences, <sup>5</sup>Immune-Mediated Diseases Therapy Center, Graduate School of Medicine, The University of Tokyo, <sup>6</sup>Department of Orthopaedic Biomaterial Science, Osaka University Graduate School of Medicine, <sup>7</sup>Graduate School of Health Sciences, Morinomiya University of Medical Sciences

WS12-13-P

### **Analysis of clinical utility of soluble TIM-4 in rheumatoid arthritis patient serum**

○ Hisaya Akiba<sup>1</sup>, Yoshiyuki Abe<sup>2</sup>, Toko Tabe<sup>3</sup>, Naoto Tamura<sup>2</sup>, Sachiko Miyake<sup>1</sup>

<sup>1</sup>Department of Immunology, Faculty of Medicine and Graduate School of Medicine, Juntendo University, <sup>2</sup>Department of Internal Medicine and Rheumatology, Faculty of Medicine and Graduate School of Medicine, Juntendo University, <sup>3</sup>Department of Clinical Laboratory Medicine, Faculty of Medicine and Graduate School of Medicine, Juntendo University

WS12-14-O/P

### **Myeloid-derived suppressor cells from the inflamed joints of arthritic SKG mice differentiate into osteoclasts and exacerbate arthritis**

○ Alfonso del Peral Fanjul<sup>1</sup>, Sho Sendo<sup>1</sup>, Yoshikazu Fujikawa<sup>1</sup>, Takumi Nagamoto<sup>1</sup>, Hiroataka Yamada<sup>1</sup>, Akio Morinobu<sup>1,2</sup>, Jun Saegusa<sup>1</sup>

<sup>1</sup>Kobe University Graduate School of Medicine Department of Rheumatology and Clinical Immunology, <sup>2</sup>Department of Rheumatology and Clinical Immunology, Kyoto University Graduate School of Medicine



WS12-15-O/P

### **Differential TCR affinities for self antigens between Treg and arthritogenic Th17 cells shape the functional imbalance that cause autoimmune arthritis**

○ Yusuke Takeuchi<sup>1,2</sup>, Daiya Ohara<sup>1</sup>, Hitomi Watanabe<sup>1</sup>, Gen Kondoh<sup>1</sup>, Akio Morinobu<sup>2</sup>, Keiji Hirota<sup>1</sup>

<sup>1</sup>Laboratory of Integrative Biological Science, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Department of Rheumatology and Clinical Immunology, Graduate School of Medicine, Kyoto University

WS12-16-P

### **MHC-DRB alleles with amino acids Val11, Phe13, and shared epitopes promote a IgG1 response and development of collagen-induced arthritis in Filipino cynomolgus macaques**

○ Hirohito Ishigaki, Yasushi Itoh

Shiga University of Medical Science, Dept of Pathology, Pathogenesis and Disease Regulation

WS12-17-O/P

### **Identification of ETS1 as the common activator for polarization of tissue-remodeling fibroblasts**

○ Noriko Komatsu<sup>1</sup>, Minglu Yan<sup>1</sup>, Masayuki Tsukasaki<sup>2</sup>, Hiroshi Takayanagi<sup>1</sup>

<sup>1</sup>Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, <sup>2</sup>Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan

WS12-18-P

### **Myeloid-specific Ezh2 deficiency plays a pathogenic role in the bleomycin-induced experimental model of scleroderma**

○ Benjawan Saechue<sup>1</sup>, Supatta Chawalitpong<sup>2</sup>, Haruhiko Koseki<sup>3</sup>, Nattiya Hirankarn<sup>4</sup>, Wijit Banlunara<sup>5</sup>, Benchaphorn Limcharoen<sup>6</sup>, Tanapat Palaga<sup>2</sup>, Sita Virakul<sup>2</sup>

<sup>1</sup>Faculty of Veterinary Science, Mahasarakham University, <sup>2</sup>Department of Microbiology, Faculty of Science, Chulalongkorn University, <sup>3</sup>Center for Integrative Medical Sciences, RIKEN, Japan, <sup>4</sup>Center of Excellence in Immunology and Immune mediated Disease, Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, <sup>5</sup>Department of Pathology, Faculty of Veterinary Science, Chulalongkorn University, Bangkok, Thailand, <sup>6</sup>Department of Anatomy, Faculty of Veterinary Science, Chulalongkorn University, Bangkok, Thailand

WS12-19-P

### **ILC3s exacerbate pulmonary fibrosis by activating ILC2s through neutrophils**

○ Yuki Hara<sup>1</sup>, Yasutaka Motomura<sup>1</sup>, Kazuyo Moro<sup>1,2</sup>

<sup>1</sup>Osaka University, <sup>2</sup>RIKEN IMS

WS12-20-O/P

### **TNF $\alpha$ -induced adipose-related protein (TIARP) suppresses the pathogenesis of bleomycin-induced pulmonary fibrosis**

○ Haruka Miki, Ayaka Miyamoto, Hiroto Tsuboi, Fumika Honda, Ayako Oyama, Saori Abe, Ayako Kitada, Hiromitsu Asashima, Yuya Kondo, Isao Matsumoto

Department of Rheumatology, Institute of Medicine, University of Tsukuba

## January 18

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### WS13 Tolerance and immune suppression-2

WS13-01-O/P

#### **Overexpression of BATF enhances proliferative and suppressive activities of Treg cells *in vivo***

○ Kohta Matsuura, Ryuichi Murakami, Shohei Hori

Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS13-02-O/P

#### **Preferential Induction of Regulatory T Cells by Ubiquitinated MHC II**

○ Yuko Kozono, Baicheng Fan, Satoshi Ueha, Haruo Kozono

Research Institute for BioMedical Sciences, Tokyo University of Sciences

WS13-03-O/P

#### **Oral tolerance inhibits DTH in the sensitization phase by Treg-mediated suppression of DC functions in skin dLNs**

○ Arisa Akagi<sup>1</sup>, Rintaro Shibuya<sup>2</sup>, Sho Hanakawa<sup>3</sup>, Akihiko Kitoh<sup>1</sup>, Kenji Kabashima<sup>1,3</sup>

<sup>1</sup>Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>2</sup>Kimberly and Eric J. Waldman Department of Dermatology, Icahn School of Medicine at Mount Sinai, New York City, NY, United States, <sup>3</sup>Skin Research Labs, Agency for Science, Technology and Research (A\*STAR), Singapore

WS13-04-O/P

### **Temporal and spatial dynamics of immune cells in mouse liver transplantation revealed by mass cytometry and Single-cell RNA sequencing**

○ Xin Hu<sup>1</sup>, Weitao Que<sup>2,3</sup>, Yifang Shui<sup>2</sup>, Masayuki Fujino<sup>1</sup>, Xiao-Kang Li<sup>1</sup>

<sup>1</sup>National Research Institute for Child Health and Development, <sup>2</sup>The First Affiliated Hospital of Zhengzhou University, <sup>3</sup>Shanghai General Hospital, Shanghai Jiao Tong University School of Medicine

WS13-05-O/P

### **VISTA regulates monocyte adhesion via TGF-beta; a targetable mechanism for hyper-adhesive monocytes in psoriasis?**

○ Kentaro Ohko<sup>1</sup>, Kozo Nakai<sup>1</sup>, Thomas McCormick<sup>2</sup>, Kevin Cooper<sup>2,3</sup>

<sup>1</sup>Department of Dermatology, Kochi Medical School, <sup>2</sup>Department of Dermatology, Case Western Reserve University, <sup>3</sup>University Hospitals Cleveland Medical Center

WS13-06-O/P

### **Foxp3<sup>A384T</sup> mutation represses *Myc* transcription without globally affecting chromatin accessibility in effector Treg cells**

○ Suzu Kawagoe, Ryuichi Murakami, Shohei Hori

Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS13-07-P

### **The requirement of dimer-forming ability for LAG-3 to inhibit T cell activation**

○ Takumi Maruhashi, Dawei Chen, Il-mi Okazaki, Daisuke Sugiura, Kenji Shimizu, Taku Okazaki

Laboratory of Molecular Immunology, Institute for Quantitative Biosciences, The University of Tokyo

WS13-08-P

### **Regulation of TCR repertoire by the RANKL/RANK/OPG system**

○ Nanami Mino<sup>1,2</sup>, Ryunosuke Muro<sup>1</sup>, Takeshi Nitta<sup>1</sup>, Keishi Fujio<sup>2</sup>, Hiroshi Takayanagi<sup>1</sup>

<sup>1</sup>Department of Immunology, Graduate school of Medicine and Faculty of Medicine, the University of Tokyo, <sup>2</sup>Department of Allergy and Rheumatology, Graduate school of Medicine and Faculty of Medicine, the University of Tokyo

WS13-09-P

### **Identification of putative druggable sites in TIPE2, a novel immunoregulatory target, using *in silico* analysis**

○ Bradley M. Kearney<sup>1,2</sup>, Hiroyuki Nakashima<sup>1</sup>, Masahiro Nakashima<sup>1</sup>, Takeshi Ono<sup>1</sup>, Azusa Kato<sup>1</sup>, Hiroyasu Goto<sup>1</sup>, Kazuma Mori<sup>1</sup>, Manabu Kinoshita<sup>1</sup>

<sup>1</sup>National Defense Medical College, <sup>2</sup>US Army Japan Engineer and Scientist Exchange Program

WS13-10-P

### **Elucidating the ligand specificity of VISTA, an immuno-inhibitory co-receptor**

○ Ryuki Abiru, Takumi Maruhashi, Il-mi Okazaki, Kenji Shimizu, Daisuke Sugiura, Taku Okazaki

Laboratory of Molecular Immunology, Institute for Quantitative Biosciences, The University of Tokyo

WS13-11-P

### **Diversity of recognition modes of antigen-induced TCR-like antibodies**

○ Kazuki Kishida<sup>1</sup>, Hisashi Arase<sup>1,2</sup>

<sup>1</sup>Research Institute for Microbial Diseases Osaka Univ. Immunochemistry, <sup>2</sup>Immunology Frontier Research Center Osaka Univ. Immunochemistry

WS13-12-P

### **Immunoregulatory mechanisms mediated by a novel receptor for the immunosuppressive protein HLA-G2**

○ Hiroshi Watanabe, Kimiko Kuroki, Katsumi Maenaka

Faculty of Pharmaceutical Sciences, Hokkaido University

WS13-13-P

### **DNA demethylase Tet expression in thymic epithelial cells affects regulatory T cell function**

○ Hiroko Nakatsukasa<sup>1</sup>, Ryuhei Yamagami<sup>2</sup>, Kenichiro Goda<sup>1</sup>, Hiroto Kawashima<sup>1</sup>, Akihiko Yoshimura<sup>2</sup>

<sup>1</sup>Laboratory of Microbiology and Immunology, Graduate School of Pharmaceutical Sciences, Chiba University, <sup>2</sup>Department of Microbiology and Immunology, Keio University School of Medicine

WS13-14-P

### **CD80/CD86-CD28 signal blockade during the mixed lymphocyte reaction augments the alloantigen-specific inhibitory function of natural regulatory T cells**

○ Kyoko Yogo<sup>1,2</sup>, Kazuyoshi Takeda<sup>1</sup>, Koichiro Uchida<sup>1</sup>, Shohei Hori<sup>3</sup>, Ko Okumura<sup>1</sup>

<sup>1</sup>Center for Immune Therapeutics and Diagnosis, Juntendo Advanced Research Institute for Health Science, Juntendo University, <sup>2</sup>JUNTEN BIO Co., Ltd., <sup>3</sup>Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS13-15-P

### Time course of exhausted and senescent T cells in a mouse model of cGVHD after bone marrow transplantation

○ Takahiro Okazaki<sup>1)</sup>, Yoko Ogawa<sup>1)</sup>, Shinri Sato<sup>1)</sup>, Eisuke Shimizu<sup>1)</sup>, Robert Rusch<sup>1)</sup>, Kazuki Asai<sup>1)</sup>, Masatoshi Hirayama<sup>1)</sup>, Shigeto Shimmura<sup>1,2)</sup>, Kazuo Tsubota<sup>1,3)</sup>, Kazuno Negishi<sup>1)</sup>

<sup>1)</sup>Department of Ophthalmology, Keio University School of Medicine, <sup>2)</sup>Fujita Medical Innovation Center Tokyo, <sup>3)</sup>Tsubota Laboratory, Inc.

## January 18

### WS14 Allergy-2

WS14-01-O/P

### Functional role of Signal-transducing adaptor protein-1 for regulation of FcεRI-mediated mast cell activation

○ Jun-ichi Kashiwakura<sup>1)</sup>, Sumihito Togi<sup>2)</sup>, Kenji Oritani<sup>3)</sup>, Tadashi Matsuda<sup>4)</sup>

<sup>1)</sup>Department of Life Science, Faculty of Pharmaceutical Sciences, Hokkaido University of Science, <sup>2)</sup>Division of Genomic Medicine, Department of Advanced Medicines, Medical Research Institute, Kanazawa Medical University, <sup>3)</sup>Department of Hematology, International University of Health and Welfare, <sup>4)</sup>Department of Immunology, Graduate School of Pharmaceutical Sciences, Hokkaido University

WS14-02-P

### Regulatory roles of mast cells in adipocyte differentiation and maturation

○ Shunki Ehara, Haruna Sobue, Atsuya Chiba, Masato Ninagawa, Risa Akita, Asuka Suzuki, Yusuke Nakanishi, Kyoko Takahashi

College of Bioresource Sciences, Nihon University

WS14-03-O/P

### Annexin A5 inhibits IgE-mediated mast cells activation via Allergin-1 inhibitory immunoreceptor

○ Mariana Silva Almeida<sup>1,3)</sup>, Satoko Tahara-Hanaoka<sup>1,2)</sup>, Shiro Shibayama<sup>4)</sup>, Akira Shibuya<sup>1,2)</sup>

<sup>1)</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, <sup>2)</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, <sup>3)</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba, <sup>4)</sup>Research Center of Immunology, Tsukuba Institute, ONO Pharmaceutical Company, Ltd.

WS14-04-P

### Co-expressed CD300a and CD300f, the immune inhibitory receptors, additively suppress IgE-mediated allergic reactions on mast cells

○ Hanbin Lee<sup>1,2)</sup>, Chigusa Nakahashi-Oda<sup>2,3)</sup>, Akira Shibuya<sup>2,3,4)</sup>

<sup>1)</sup>Ph.D. Program in Human Biology, School of Comprehensive Human Sciences, University of Tsukuba, Japan, <sup>2)</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, Japan, <sup>3)</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba, Japan, <sup>4)</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba, Tsukuba, Ibaraki

WS14-05-O/P

### The C-type lectin receptor Clec12b suppresses mast cell activation in the skin and regulates house dust mite-induced dermatitis

○ Ayana Iijima<sup>1,2)</sup>, Kenshiro Matsuda<sup>2,3)</sup>, Kazuko Shibuya<sup>2,4)</sup>, Akira Shibuya<sup>2,4)</sup>

<sup>1)</sup>Ph. D. Program in Human Biology, University of Tsukuba, <sup>2)</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, <sup>3)</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba, <sup>4)</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS14-06-P

### Influence of the Th1 Cytokine Environment on CCL5 Production from Langerhans Cells

○ Katsuhiko Matsui

Dept. Clin. Immunol., Meiji Pharmaceut. Univ.

WS14-07-P

### Identification of a functional *DOCK8* gene polymorphism associated with atopic dermatitis

○ Kazufumi Kunimura, Yoshinori Fukui

Division of Immunogenetics, Medical Institute of Bioregulation, Kyushu University

WS14-08-O/P

### Classical monocyte-derived macrophages display high efferocytic ability and contribute to the resolution of basophil-dependent skin allergic inflammation

○ Kensuke Miyake<sup>1)</sup>, Junya Ito<sup>1)</sup>, Kazufusa Takahashi<sup>1)</sup>, Jun Nakabayashi<sup>2)</sup>, Shigeyuki Shichino<sup>3)</sup>, Hajime Karasuyama<sup>1)</sup>

<sup>1)</sup>Inflammation, Infection and Immunity Laboratory, Advanced Research Institute, Tokyo Medical and Dental University (TMDU), <sup>2)</sup>College of Liberal Arts and Sciences, Tokyo Medical and Dental University (TMDU), <sup>3)</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute of Biomedical Sciences, Tokyo University of Science

WS14-09-O/P

### The role of IL-13 on dendritic cells is critical for type 2 immune responses

○ Yasuyo Harada<sup>1)</sup>, Takanori Sasaki<sup>4)</sup>, Takeshi Watanabe, Satoshi Ueha<sup>3)</sup>, Shuhei Ogawa<sup>5)</sup>, Masato Kubo<sup>1,2)</sup>

<sup>1)</sup>Tokyo University of Science, Research Institute for Biological Science, Division of Molecular Pathology, <sup>2)</sup>RIKEN Center for Integrative Medical Sciences, Laboratory for Cytokine Regulation, <sup>3)</sup>Tokyo University of Science, Research Institute for Biological Science, Division of Molecular Regulation of Inflammatory and Immune Diseases, <sup>4)</sup>Keio University School of Medicine, Department of Internal Medicine, Division of Rheumatology, <sup>5)</sup>Tokyo University of Science, Research Institute for Biological Science, Division of Experimental Animal Immunology

WS14-10-P

### Oral mucosal allergen exposure prevents development of peanut allergy in mice

○ Yuya Yoshida<sup>1,2)</sup>, Koji Iijima<sup>1)</sup>, Mayumi Matsunaga<sup>1)</sup>, Mia Y. Masuda<sup>1)</sup>, Takao Kobayashi<sup>1)</sup>, Hirohito Kita<sup>1,3)</sup>

<sup>1)</sup>Division of Allergy, Asthma and Clinical Immunology, and Department of Medicine, Mayo Clinic, Scottsdale, Arizona, United States of America, <sup>2)</sup>Department of Pathological Biochemistry, Faculty of Pharmaceutical Sciences, Setsunan University, Hirakata, Osaka, Japan, <sup>3)</sup>Department of Immunology, Mayo Clinic, Rochester, and Mayo Clinic, Scottsdale, Arizona, United States of America

WS14-11-O/P

### An aluminum-containing food additive causes cleavage of IL-18, IL-33 and gasdermin D in intestinal epithelial cells under antibiotic treatment

○ Ayako Wakabayashi<sup>1)</sup>, Atsuko Owaki<sup>1)</sup>, Ken Iwatsuki<sup>2)</sup>, Etsuko Toda<sup>3)</sup>, Yasuhiro Nishiyama<sup>4)</sup>, Shoji Matsune<sup>5)</sup>, Rimpei Morita<sup>1)</sup>

<sup>1)</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2)</sup>Department of Nutritional Science and Food Safety, Faculty of Applied Bioscience, Tokyo University of Agriculture, <sup>3)</sup>Department of Analytic Human Pathology, Nippon Medical School, <sup>4)</sup>Department of Neurological Science, Nippon Medical School, <sup>5)</sup>Department of Otolaryngology, Nippon Medical School Musashi Kosugi Hospital

WS14-12-O/P

### Impaired suppressive function of Tregs promotes continuous bone loss in food-allergic enteropathy model mice

○ Kohei Soga<sup>1,2)</sup>, Tomohiro Hoshino<sup>3)</sup>, Kosuke Nishitsuji<sup>1,2)</sup>, Michio Tomura<sup>4)</sup>, Shigeru Kakuta<sup>5,6)</sup>, Satoshi Hachimura<sup>1,2)</sup>, Haruyo Nakajima-Adachi<sup>1,2,7)</sup>

<sup>1)</sup>Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, <sup>2)</sup>Research Center for Food Safety, Graduate School of Agricultural and Life Sciences, The University of Tokyo, <sup>3)</sup>Division of Biochemistry, Faculty of Pharmacy and Graduate School of Pharmaceutical Science, Keio University, <sup>4)</sup>Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, <sup>5)</sup>Laboratory of Biomedical Science, Graduate School of Agricultural and Life Sciences, The University of Tokyo, <sup>6)</sup>Collaborative Research Institute for Innovative Microbiology (CRIIM), The University of Tokyo, <sup>7)</sup>Department of Immunobiology and Biofunctional Research, Graduate School of Agricultural and Life Sciences, The University of Tokyo

WS14-13-P

### Anti-allergic and immune checkpoint inhibitory activities of *Ganoderma sinense* cultivated under various conditions

○ Hajime Kobori<sup>1,2)</sup>, Taro Yasuma<sup>3)</sup>, Masaaki Toda<sup>3)</sup>, Corina N. D'Alessandro-Gabazza<sup>3)</sup>, Esteban C. Gabazza<sup>3)</sup>

<sup>1)</sup>Iwade Research Institute of Mycology Co., Ltd, <sup>2)</sup>Research Institute for Mushroom Science, Shizuoka University, <sup>3)</sup>Department of Immunology, Mie University School of Medicine

WS14-14-P

### Shi-Bi-Lin Decoction reduces allergic rhinitis symptoms by modulating the immunosystem activity via Gut Microbiota

○ Peiting Li, Sze-Man Hon, Chung-Lap Chan, Chun Kwok Wong

The Chinese University of Hong Kong

WS14-15-P

### Characterization of eosinophils and natural killer cells in nasal polyps and peripheral blood in eosinophilic chronic rhinosinusitis patients

○ Kaori Tsuji, Ami Aoki, Atsushi Onodera, Masahiro Kiuchi, Kota Kokubo, Yuki Morimoto, Tomohisa Inuma, Toyoyuki Hanazawa, Toshinori Nakayama, Kiyoshi Hirahara

Chiba University

WS14-16-O/P

### The USP7-STAT3-granzyme-Par-1 axis regulates allergic inflammation by promoting differentiation of IL-5-producing Th2 cells

○ Masahiro Kiuchi, Kota Kokubo, Hiroyuki Yagyu, Masahiro Nemoto, Kaori Tsuji, Takahisa Hishiya, Miki Onoue, Rie Shinmi, Yuri Sonobe, Toshinori Nakayama, Kiyoshi Hirahara

Graduate School of Medicine and School of Medicine, Chiba University, Immunology

WS14-17-P

### Diverse Characteristics of Pulmonary Neuroendocrine Cells Revealed in Chronic Airway Inflammation

○ Masahiro Nemoto<sup>1)</sup>, Masahiro Kiuchi<sup>1)</sup>, Kaori Tsuji<sup>1)</sup>, Toshinori Nakayama<sup>2)</sup>, Kiyoshi Hirahara<sup>1)</sup>

<sup>1)</sup>Department of Immunology, Chiba University, Graduate School of Medicine, <sup>2)</sup>Chiba University

WS14-18-P

**Possible role of CCR5<sup>+</sup> cells in lung fibrosis of asthmatic mice**

○ Hayato Shimora, Yukino Nagatani, Itomi Takamori, Keitaro Nishikawa, Masaya Matsuda, Kazuyuki Kitatani, Takeshi Nabe

Laboratory of Immunopharmacology, Faculty of Pharmaceutical Sciences, Setsunan Univ.

WS14-19-P

**Investigation on basic lymphocyte profile in NC/Nga mice**

○ Fuzuki Hayashi, Miyoko Matsushima, Nodoka Shimasaki, Hinata Taniguchi, Hina Kawashima, Sayaka Takagi, Nanami Yoshida, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine, Aichi, Japan

**January 18****WS15 Tumor immunity-2; Various immunotherapy**

WS15-01-O/P

**Development of peptide immunotherapy targeting CAF**

○ Keiko Udaka<sup>1</sup>, Toshihiro Komatsu<sup>1</sup>, Yuki Tanaka<sup>2</sup>, Kousuke Onoue<sup>2</sup>, Yoshiko Yamashita<sup>2</sup>, Kazuhide Onoguchi<sup>2</sup>, Ryo Tanaka<sup>3</sup>, Yoichiro Iwase<sup>3</sup>, Naoki Sakaguchi<sup>3</sup>

<sup>1</sup>Department of Immunology, School of Medicine, Kochi University, <sup>2</sup>AI Drug Development Division, NEC Corporation, <sup>3</sup>Pharmaceutical Solutions Division, R&D, TERUMO Corporation

WS15-02-O/P

**A novel cancer vaccine based on hyaluronic acid nanogel drives a potent antitumor immunity against metastatic- and ICI resistant-tumors with long lasting memory CD8<sup>+</sup> T cells**

○ Fumiyasu Momose<sup>1</sup>, Takashi Nakai<sup>2</sup>, Kohei Yabuuchi<sup>2</sup>, Makiko Yamane<sup>1</sup>, Tae Hayashi<sup>1</sup>, Linan Wang<sup>1</sup>, Yoshiyuki Nakagawa<sup>2</sup>, Shogo Aso<sup>2</sup>, Toru Katsumata<sup>2</sup>, Tsuyoshi Shimoboji<sup>2</sup>, Yoshihiro Miyahara<sup>1</sup>

<sup>1</sup>Department of Personalized Cancer Immunotherapy, Mie University Graduate School of Medicine, <sup>2</sup>New Product Development Office, Functional Additives Division, Asahi Kasei Corporation

WS15-03-O/P

**Epitope spreading elicited by a multivalent cellular vaccine against prostate cancer, aAVC-PROS**

○ Satoru Yamasaki<sup>1</sup>, Kanako Shimizu<sup>1,2</sup>, Shin-ichiro Fujii<sup>1,2</sup>

<sup>1</sup>Lab for Immunotherapy, RIKEN IMS, <sup>2</sup>RIKEN Program for Drug Discovery and Medical Technology Platforms (DMP)

WS15-04-O/P

**CD69 regulates tumor-specific CD8 T cell differentiation in tumor-draining lymph nodes**

○ Ryo Nasu, Wang Yangsong, Yukihiko Endo, Ichita Hasegawa, Yukiyoshi Mita, Shinichiro Motohashi, Toshinori Nakayama, Motoko Y Kimura

Graduate School of Medicine, Chiba University

WS15-05-O/P

**Which subset of dendritic cells is critical to the effect of HSV-1 oncolytic virus therapy?**

○ Shumpei Uchida<sup>1</sup>, Tsukasa Seya<sup>2</sup>, Shizuo Akira<sup>3</sup>, Katsuaki Sato<sup>4</sup>, Tsuneyasu Kaisho<sup>5</sup>, Ryutarō Fukui<sup>6</sup>, Kensuke Miyake<sup>6</sup>, Tomoki Todo<sup>7</sup>, Norimitsu Kadowaki<sup>1</sup>

<sup>1</sup>Division of Hematology, Rheumatology and Respiratory Medicine, Faculty of Medicine, Kagawa University, <sup>2</sup>Nebuta Research Institute for Life Sciences, Aomori University, Aomori, Japan, <sup>3</sup>Immunology Frontier Research Center, Osaka University, Osaka, Japan, <sup>4</sup>Division of Immunology, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan, <sup>5</sup>Department of Physiological Regulation Mechanisms, Wakayama Medical University, Wakayama, Japan, <sup>6</sup>Division of Infectious Genetics, Institute of Medical Science, the University of Tokyo, Tokyo, Japan, <sup>7</sup>Division of Innovative Cancer Therapy, Institute of Medical Science, the University of Tokyo, Tokyo, Japan

WS15-06-O/P

**A DLL3-targeting trisppecific T cell engager with CD3/CD137 dual specific Fabs shows potent antitumor activity in small cell lung cancer models**

○ Ryutarō Iwabuchi<sup>1</sup>, Hirofumi Mikami<sup>1</sup>, Shu Feng<sup>2</sup>, Sotaro Naoi<sup>2</sup>, Yumiko Azuma<sup>1</sup>, Yoko Kayukawa<sup>1</sup>, Toshiaki Tsunenari<sup>1</sup>, Junko Shinozuka<sup>1</sup>, Masaki Yamazaki<sup>1</sup>, Kenji Kashima<sup>1</sup>, Mika Kamata-Sakurai<sup>1</sup>, Takehisa Kitazawa<sup>1</sup>

<sup>1</sup>Chugai Pharmaceutical Co., Ltd., <sup>2</sup>Chugai Pharmabody Research Pte. Ltd.

WS15-07-O/P

**SAIL66, CLDN6-targeting next generation T-cell redirecting antibody, demonstrates a potent antitumor efficacy**

○ Naoki Kimura, Takayuki Kamikawa, Shinya Ishii, Masaru Muraoka, Kenji Taniguchi, Ryo Uchikawa, Moe Yoshimoto, Sho Akai, Mei Shimada, Mika Kamata-Sakurai, Takehisa Kitazawa, Tomoyuki Igawa

Chugai Pharmaceutical Co.,Ltd

WS15-08-P

### **HER2/CD3 bispecific antibody enhances antitumor immunity of NKT cells in lung cancer**

○ Mariko Takami, Shinichiro Motohashi  
Chiba University

WS15-09-P

### **Immune profiling of tongue squamous cell carcinoma and the efficacy of immune checkpoint blockade**

○ Ryo Ouchi<sup>1,3</sup>, Pissacha Daroonpan<sup>1</sup>, Yuya Su<sup>1,2</sup>, Hiroyuki Harada<sup>2</sup>, Miyuki Azuma<sup>1</sup>  
<sup>1</sup>Tokyo Medical and Dental University(TMDU) Departments of Molecular Immunology, <sup>2</sup>Tokyo Medical and Dental University(TMDU) Departments of Oral and Maxillo-facial Surgical Oncology, <sup>3</sup>University of Toyama, Department of Oral and Maxillofacial Surgery

WS15-10-P

### **Statins improve anti-tumor effects of anti-PD-1 antibody through preventing CD8<sup>+</sup> T cell exhaustion via modulating lipid metabolism**

○ Kyi-Tha-Thu Chaw<sup>1</sup>, Kinya Tsubota<sup>2</sup>, Tomonori Yaguchi<sup>3</sup>, Aya Misawa<sup>1</sup>, Shigeki Ohta<sup>1</sup>, Yutaka Kawakami<sup>1</sup>  
<sup>1</sup>Department of Immunology, School of Medicine, International University of Health and Welfare, Narita, Japan, <sup>2</sup>Department of Ophthalmology, Tokyo Medical University, Tokyo, Japan, <sup>3</sup>Department of Immunology and Genomic Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan

WS15-11-P

### **ICOS+CD4 T cells contributes to development of anti-PD-1 antibody-induced lung injury through promoting B cell differentiation**

○ Mari Yokoi<sup>1,2,3</sup>, Kosaku Murakami<sup>2</sup>, Tomonori Yaguchi<sup>4</sup>, Daiki Hira<sup>3</sup>, Tomohiro Terada<sup>3</sup>, Hirotake Tsukamoto<sup>2</sup>  
<sup>1</sup>Graduate School of Pharmaceutical Sciences, Kyoto University, <sup>2</sup>Division of Clinical Immunology and Cancer Immunotherapy, Center for Cancer Immunotherapy and Immunobiology, Graduate School of Medicine, Kyoto University, <sup>3</sup>Department of Clinical Pharmacology and Therapeutics, Kyoto University Hospital, <sup>4</sup>Department of Immunology and Genomic Medicine, Center for Cancer Immunotherapy and Immunobiology, Graduate School of Medicine, Kyoto University

WS15-12-P

### **Therapeutic vaccines containing mouse and human PD-L1 peptides induce tumor immunity**

○ Wang Long<sup>1,2</sup>, Yi Ding<sup>2</sup>, Yang Cui<sup>2</sup>, Takeshi Tsubata<sup>1,2</sup>  
<sup>1</sup>Department of Pathology, Nihon University School of Dentistry, <sup>2</sup>Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University

WS15-13-P

### **Withdrawn**

WS15-14-P

### **Enhancement of whole cell cancer vaccine by needle-free administration method**

○ Kunihiro Yamashita<sup>1,3</sup>, Chin-Yang Chang<sup>2</sup>, Jiayu Anna Tai<sup>3</sup>, Yu-Diao Kuan<sup>3</sup>, Tomoyuki Nishikawa<sup>3</sup>  
<sup>1</sup>Daicel Corporation, Tokyo, Japan, <sup>2</sup>Department of Gene and Stem Cell Regenerative Therapy, Graduate School of Medicine/Faculty of Medicine, Osaka University, Suita, Japan, <sup>3</sup>Department of Device Application for Molecular Therapeutics, Graduate School of Medicine/Faculty of Medicine, Osaka University, Suita, Japan

WS15-15-P

### **Anti-tumor effect of CCL19-expressing allogeneic mesenchymal stromal cells**

○ Yuichi IIDA, Mamoru Harada  
Department of Immunology, Faculty of Medicine, Shimane University

WS15-16-P

### **Antitumor immunity to B16F10 and colon26 tumors in mice induced by electrical discharge plasma irradiation of tumor and normal tissues**

○ Ryo Ono<sup>1</sup>, Kengo Wada<sup>1</sup>, Ryuichiro Ito<sup>1</sup>, Hiroki Okada<sup>1</sup>, Atsushi Komuro<sup>1</sup>, Hideyuki Yanai<sup>2</sup>  
<sup>1</sup>Department of Advanced Energy, The University of Tokyo, <sup>2</sup>Department of Inflammation, Research Center for Advanced Science and Technology, The University of Tokyo

WS15-17-P

### **Anti-IL-34 antibody-inducing peptide vaccines: An emerging Strategy in Tumor Therapy**

○ Masafumi Tanji, Haruka Wada, Kenichiro Seino  
Division of Immunobiology, Institute for Genetic Medicine, Hokkaido University

WS15-18-P

### **Exosome under the control of SPRED2 promotes M1 macrophage polarization and activate IL6-STAT3 signaling in esophageal cancer cells**

○ Tong Gao, Miao Tian, Masahiro Fujisawa, Toshiaki Ohara, Tianyi Wang, Yuze Wang, Hnin Thida Tun, Chunning Li, Teizo Yoshimura, Akihiro Matsukawa  
Department of Pathology and Experimental Medicine, Okayama University

WS15-19-P

### **Crucial role of conventional dendritic cells in the generation of anti-tumor T-cell responses and immunogenic tumor microenvironment to suppress tumor development**

○ Moe Tominaga, Tomofumi Uto, Tomohiro Fukaya, Shuya Mitoma, Katsuaki Sato  
Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki

WS15-20-P

### **Clec4A4 serves as a negative immune checkpoint regulator expressed on conventional dendritic cells to impair antitumor immunity**

○ Tomofumi Uto, Tomohiro Fukaya, Shuya Mitoma, Moe Tominaga, Katsuaki Sato  
Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki

WS15-21-P

### **Antigen presentation capacity of tumor endothelial cells under VEGFR-2 blocking therapy**

○ Mina Tsukuda<sup>1</sup>, Toshihiro Komatsu<sup>1</sup>, Yuki Tanaka<sup>2</sup>, Kousuke Onoue<sup>2</sup>, Yoshiko Yamashita<sup>2</sup>, Kazuhide Onoguchi<sup>2</sup>, Ryo Tanaka<sup>3</sup>, Yoichiro Iwase<sup>3</sup>, Naoki Sakaguchi<sup>3</sup>, Keiko Udaka<sup>1</sup>  
<sup>1</sup>Department of Immunology, School of Medicine, Kochi University, <sup>2</sup>AI Drug Development Division, NEC Corporation, <sup>3</sup>Pharmaceutical Solutions Division, R&D, TERUMO Corporation

WS15-22-P

### **Immune Surveillance of Radiation-Induced Tumors Elicited by Latent Epstein-Barr Virus Oncogenes**

○ Jin Yuqi, Yun Guo, Tomoharu Yasuda  
Graduate School of Biomedical and Health Sciences, Hiroshima University

WS15-23-P

### **Near-infrared photoimmunotherapy induced tumor cell death enhances tumor-infiltrating dendritic cell migration via ATP-P2X7 receptor and Gai protein-coupled receptor signaling pathways**

○ Taiki Moriya<sup>1,2</sup>, Ryuhei Okada<sup>3</sup>, Aki Furusawa<sup>3</sup>, Daiki Fujimura<sup>3</sup>, Hiroaki Wakiyama<sup>3</sup>, Takuya Kato<sup>3</sup>, Peter L. Choyke<sup>3</sup>, Yutaka Kusumoto<sup>1</sup>, Hisataka Kobayashi<sup>3</sup>, Michio Tomura<sup>1</sup>  
<sup>1</sup>Osaka Ohtani Univ., <sup>2</sup>Rakuno Gakuen Univ., <sup>3</sup>National Institutes of Health

WS15-24-P

### **Antagonists against neurotransmitter receptor NMDAR suppress tumor progression by regulating tumor-associated macrophages**

○ Juming Yan<sup>1</sup>, Jing Hu<sup>2</sup>, Dongchen Yuan<sup>1</sup>, Xiaoman Ju<sup>1</sup>, Renxian Tang<sup>1</sup>, Kuiyang Zheng<sup>1</sup>  
<sup>1</sup>Jiangsu Key Laboratory of Immunity and Metabolism, Department of Pathogen Biology and Immunology, Xuzhou Medical University, China, <sup>2</sup>Department of Bioinformatics, School of Life Sciences, Xuzhou Medical University, China

WS15-25-P

### **IN-VIVO GENERATION OF DESIGNER ANTIGEN PRESENTING CELLS FOR TUMOR IMMUNOTHERAPY**

○ Toan Van Le, Shota Imai, Makie Ueda, Tomoyoshi Yamano, Rikinari Hanayama  
Department of Immunology, Kanazawa University

WS15-26-P

### **Regulation of Hepatocellular Metabolism Functional analysis of host factors**

○ Kureha Takara<sup>1</sup>, Kazuhisa Murai<sup>1</sup>, Yuna Tamura<sup>1</sup>, Masao Honda<sup>2,1</sup>  
<sup>1</sup>Department of Clinical Laboratory Medicine, Kanazawa University Graduate School of Health Medicine, Kanazawa, Japan, <sup>2</sup>Department of Gastroenterology, Kanazawa University Graduate School of Medicine, Kanazawa, Japan

WS15-27-P

### **In vivo induction of memory-like NK cells following two cycles of STING agonist loaded lipid nanoparticle and CpG-ODN protects against melanoma lung metastasis**

○ Alaa Khalifa, Takashi Nakamura, Yusuke Sato, Hideyoshi Harashima  
Faculty of Pharmaceutical Sciences, Hokkaido University, Japan

WS15-28-P

### **Melanoma cells that survived intracellular bacterial infection evade immunological elimination**

○ Yutaka Horiuchi, Sara Hatazawa, Yukie Ando, Momo Mataka, Takashi Murakami  
Dept. Microbiol., Fac. Med., Saitama Med. Univ.

WS15-29-P

### **A red light-responsive photoswitch for deep tissue optogenetics**

○ Takahiro Nakajima<sup>1,2</sup>, Yuto Kuwasaki<sup>2</sup>, Shota Yamamoto<sup>2</sup>, Takahiro Otabe<sup>1,2</sup>, Moritoshi Sato<sup>2,1</sup>  
<sup>1</sup>KISTEC, <sup>2</sup>The University of Tokyo



## WS16 Infection immunity 3

WS16-01-O/P

### **Circadian Dysregulation in HaCaT keratinocytes Upon *Candida albicans* Infection**

○ Jayshree Low, Kanami Orihara, Susumu Kajiwara  
Tokyo Institute of Technology

WS16-02-O/P

### ***Tannerella forsythia* induces inflammasome activation by triggering both NLRP3 and Caspase-4**

○ Chenwei Hsu, Tokuju Okano, Tosihiko Suzuki  
Tokyo Medical and Dental Univ.

WS16-03-O/P

### **Identification of PILRA and PILRB as novel $\beta$ -glucan receptors that bind to pathogenic fungus, *Aspergillus spp***

○ Yasunobu Miyake, Hiroki Yoshida  
Saga University, Faculty of Medicine

WS16-04-O/P

### **Defining the molecular mechanisms by which histone deacetylase 7 (HDAC7) orchestrates immunometabolic responses in macrophages**

○ Rishika Abrol, Kaustav Das Gupta, James E.B. Curson, Syeda Farhana Afroz, Karoline Raven, Divya Ramnath, Matthew J. Sweet  
Institute for Molecular Bioscience, The University of Queensland, Australia

WS16-05-O/P

### ***Mycobacterium leprae* deactivates a potent PAMP to achieve immune evasion**

○ Shigenari Ishizuka<sup>1,2</sup>, Yuji Miyamoto<sup>3</sup>, Tomomi Kawakita<sup>3</sup>, Yumi Maeda<sup>3</sup>, Masamichi Goto<sup>4</sup>, Manabu Ato<sup>3</sup>, Masamichi Nagae<sup>1,2</sup>, Sho Yamasaki<sup>1,2,5</sup>

<sup>1</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases (RIMD), Osaka University, <sup>2</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center (IFReC), Osaka University, <sup>3</sup>Department of Mycobacteriology, Leprosy Research Center, National Institute of Infectious Diseases (NIID), <sup>4</sup>Department of Pathology, Kagoshima University Graduate School of Medical and Dental Sciences, <sup>5</sup>Center for Infectious Disease Education and Research (CiDER), Osaka University

WS16-06-O/P

### ***Pseudomonas aeruginosa* Hijacks Host Nitric Oxide Metabolic Pathway to Evade Killing by Neutrophils in the Lung**

○ Yoshinari Nakatsuka, Masanori Matsumoto, Naohiro Inohara, Gabriel Núñez  
University of Michigan

WS16-07-O/P

### **Secreted Phospholipase PLA2G5 Acts as a Self-Venom in Sepsis by Mediating Hemolysis**

○ Michihiro Takahama<sup>1,2</sup>, Nicolas Chevrier<sup>2</sup>  
<sup>1</sup>Graduate School of Pharmaceutical Sciences, Osaka University, <sup>2</sup>Pritzker School of Molecular Engineering, the University of Chicago

WS16-08-O/P

### **Chronic kidney disease increases bacterial susceptibility in mice due to reduced bactericidal activity of Kupffer cells**

○ Kazuma Mori<sup>1</sup>, Hiroyuki Nakashima<sup>1</sup>, Hiroyasu Goto<sup>2</sup>, Keiko Tanoue<sup>2</sup>, Seigo Ito<sup>3</sup>, Azusa Kato<sup>1</sup>, Masahiro Nakashima<sup>1</sup>, Bradley M Kearney<sup>1,4</sup>, Manabu Kinoshita<sup>1</sup>

<sup>1</sup>Department of Immunology and Microbiology, National Defense Medical College, <sup>2</sup>Department of Nephrology and Endocrinology, National Defense Medical College, <sup>3</sup>Department of Internal Medicine, Self-Defense Force Iruma Hospital, <sup>4</sup>US Army Japan Engineer and Scientist Exchange Program

WS16-09-P

### **A Novel Recombinant *Lactococcus lactis* Mucosal Vaccine Platform Based on Group A Streptococcus Pili**

○ Catherine Jia-Yun Tsai<sup>1,2,3,4</sup>, Risa Takahashi<sup>1,3</sup>, Hiroshi Kiyono<sup>2,4</sup>, Kohtaro Fujiihashi<sup>2,4,5,6</sup>

<sup>1</sup>University of Auckland, New Zealand, <sup>2</sup>Chiba University, <sup>3</sup>Maurice Wilkins Centre for Biodiscovery, New Zealand, <sup>4</sup>Chiba University Synergy Institute for Futuristic Mucosal Vaccine Research and Development (cSIMVa), <sup>5</sup>The Institute of Medical Science, The University of Tokyo, <sup>6</sup>UCSD Center for Mucosal Immunology

WS16-10-P

### **AIM2 inflammasome exacerbates *Staphylococcus aureus* infection**

○ Hideki Hara<sup>1</sup>, Yasuyuki Matsuda<sup>1</sup>, Kei Sakamoto<sup>2</sup>, Hajime Yamauchi<sup>1</sup>, Akihiko Yoshimura<sup>3</sup>, Gabriel Núñez<sup>4</sup>

<sup>1</sup>Asahikawa Medical University, <sup>2</sup>Yamaguchi University, <sup>3</sup>Keio University, <sup>4</sup>University of Michigan



WS16-11-P

### Elucidation of pneumonia-inducing mechanism by additional inoculation of Zinc metalloprotease 1-deficient *Mycobacterium tuberculosis* variant BCG

○ Masayuki Umemura<sup>1,2,3</sup>, Giichi Takaesu<sup>1,2,3</sup>, Goro Matsuzaki<sup>1,2,3</sup>

<sup>1</sup>TBRC, Univ. Ryukyus, <sup>2</sup>Dept. Host Defense, Grad. Sch. Med., Univ. Ryukyus, <sup>3</sup>AMRC, Faculty Med., Univ. Ryukyus

WS16-12-P

### *Lactococcus lactis* expressing Group A streptococcus pili as a mucosal vaccine against Group A Streptococcal infections

○ Jacelyn Mei San Loh<sup>1,2</sup>, Adrina Hema J-Khemlani<sup>1</sup>, Devaki Pilapitiya<sup>1</sup>, Catherine Jia-Yun Tsai<sup>1,2</sup>, Thomas Proft<sup>1,2</sup>

<sup>1</sup>University of Auckland, New Zealand, <sup>2</sup>Maurice Wilkins Centre for Molecular Biodiscovery, New Zealand

WS16-13-P

### CD8<sup>+</sup> Regulatory T Cells Induced by Lipopolysaccharide Improve Mouse Endotoxin Shock

○ Nanaka Morita<sup>1,2</sup>, Masato Hoshi<sup>2,3</sup>, Hiroyuki Tezuka<sup>2</sup>, Tatsuya Ando<sup>2</sup>, Sayaka Yoshida<sup>3</sup>, Fumiaki Sato<sup>3</sup>, Hiroyuki Yoko<sup>2</sup>, Hiroyasu Ito<sup>2,3</sup>, Kuniaki Saito<sup>2</sup>

<sup>1</sup>International University of Health and Welfare, <sup>2</sup>Fujita Health University, <sup>3</sup>Fujita Health University Hospital

WS16-14-P

### The C-type lectin receptors Dectin-1/Dectin-2 and the cytokine IL-17 are critical for protection against the fungal pathogen *Sporothrix brasiliensis*

○ Fabio Seiti Yamada Yoshikawa<sup>1</sup>, Sandro Rogerio de Almeida<sup>2</sup>, Shinobu Saijo<sup>1</sup>

<sup>1</sup>Medical Mycology Research Center, Chiba University, Chiba, Japan, <sup>2</sup>Faculty of Pharmaceutica Sciences, University of Sao Paulo, Sao Paulo, Brazil

WS16-15-P

### The verification of a novel tuberculosis vaccine under simian immunodeficiency virus and mycobacterium tuberculosis co-infected monkey model

○ Natsuko Yamakawa, Yasuhiro Yasutomi

NIBIOHN Tsukuba Primate Research Center

WS16-16-P

### Analysis of periodontal disease-induced cognitive impairment behavior in mice

○ Sari Kishikawa<sup>1,2</sup>, Jun-ichi Nagao<sup>1,2</sup>, Kenji Toyonaga<sup>1,2</sup>, Emi Kaji<sup>1</sup>, Masahiro Nakagami<sup>1</sup>, Aoba Iwanuma<sup>1</sup>, Sonoko Tasaki<sup>1</sup>, Kanae Negoro<sup>1,2</sup>, Satoru Iwai<sup>1</sup>, Yoshihiko Tanaka<sup>1,2</sup>

<sup>1</sup>Section of Infection Biology, Department of Functional Bioscience, Division of Biomedical Sciences, Fukuoka Dental College, <sup>2</sup>Oral Medicine Research Center., Fukuoka Dental College

WS16-17-P

### *Staphylococcus aureus* reversibly regulates Agr quorum sensing to colonize hosts and cause an outbreak in a hospital

○ Yuriko Yamazaki<sup>1,2</sup>, Takashi Sugihira<sup>3</sup>, Hiroki Takahashi<sup>5</sup>, Akiko Takaya<sup>6</sup>, Manabu Fujimoto<sup>2,4</sup>, Yumi Matsuoka-Nakamura<sup>1,2,3</sup>

<sup>1</sup>Cutaneous Allergy and Host Defense, Immunology Frontier Research Center, Osaka University, <sup>2</sup>Department of Dermatology, Graduate School of Medicine, Osaka University, <sup>3</sup>Department of Cutaneous Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>4</sup>Cutaneous Immunology, Immunology Frontier Research Center, Osaka University, <sup>5</sup>Medical Mycology Research Center, <sup>6</sup>Natural Products Chemistry, Graduate School of Pharmaceutical Sciences, Chiba University

WS16-18-P

### Mechanisms of NLRC5 nuclear import and retention for MHC class I transactivation

○ Baohui Zhu<sup>1</sup>, Ryota Ouda<sup>1</sup>, Ning An<sup>1</sup>, Tsutomu Tanaka<sup>1</sup>, Koichi S Kobayashi<sup>1,2,3</sup>

<sup>1</sup>Department of Immunology, Hokkaido University Graduate School of Medicine, Sapporo 060-8638, Japan, <sup>2</sup>Hokkaido University Institute for Vaccine Research and Development, Sapporo 060-8638, Japan, <sup>3</sup>Department of Microbial Pathogenesis and Immunology, Texas A&M University, Bryan, TX

WS16-19-P

### Mucosal immune network of Th17 cells via oral-gut axis exacerbates the development of periodontitis

○ Jun-ichi Nagao<sup>1,2</sup>, Masanobu Nakagami<sup>1</sup>, Sari Kishikawa<sup>1,2</sup>, Kenji Toyonaga<sup>1,2</sup>, Emi Kaji<sup>1</sup>, Aoba Iwanuma<sup>1</sup>, Kanae Negoro-Yasumatsu<sup>1,2</sup>, Sonoko Tasaki<sup>1</sup>, Satoru Iwai<sup>1</sup>, Yoshihiko Tanaka<sup>1,2</sup>

<sup>1</sup>Section of Infection Biology, Department of Functional Bioscience, Fukuoka Dental Collage, <sup>2</sup>Oral Medicine Research Center, Fukuoka Dental College

WS16-20-P

### *Salmonella* evades from humoral immunity and antibiotics

○ Uki Kimura<sup>1</sup>, Karen Saiki<sup>1</sup>, Nobuhiro Matsuyama<sup>1</sup>, Akiko Takaya<sup>2</sup>, Koji Tokoyoda<sup>1</sup>

<sup>1</sup>Division of Immunology, School of Life Science, Faculty of Medicine, Tottori University, Tottori, Japan, <sup>2</sup>Department of Natural Products Chemistry, Graduate School of Pharmaceutical Sciences, Chiba University, Chiba, Japan

WS16-21-P

### Whole Blood Culture for Interferon Gamma Release Assay to Detect *Mycobacterium tuberculosis* Complex Infection in Asian Elephants (*Elephas maximus*)

○ Chitsuda Pongma<sup>1</sup>, Songkiat Songthammanuphap<sup>1</sup>, Songchan Puthong<sup>1</sup>, Anumart Buakeaw<sup>1</sup>, Therdsak Prammananan<sup>2</sup>, Saradee Warit<sup>2</sup>, Wanlaya Tipkantha<sup>3</sup>, Erngsiri Kaewkhunjob<sup>3</sup>, Waleemas Jairak<sup>3</sup>, Piyaporn Kongmakee<sup>3</sup>, Choenkwan Pabutta<sup>3</sup>, Tanapat Palaga<sup>1</sup>

<sup>1</sup>Chulalongkorn University, <sup>2</sup>National Science and Technology Development Agency (NSTDA), <sup>3</sup>Zoological Park Organization of Thailand

WS16-22-P

### Functional analysis of signaling adaptor in a murine oral candidiasis model

○ Kenji Toyonaga<sup>1,2</sup>, Jun-ichi Nagao<sup>1,2</sup>, Sonoko Tasaki<sup>1</sup>, Masayuki Umemura<sup>3</sup>, Sari Kishikawa<sup>1,2</sup>, Emi Kaji<sup>1</sup>, Aoba Iwanuma<sup>1</sup>, Masanobu Nakagami<sup>1</sup>, Kanae Negoro-Yasumatsu<sup>1,2</sup>, Satoru Iwai<sup>1</sup>, Yoshihiko Tanaka<sup>1,2</sup>

<sup>1</sup>Section of Infection Biology, Department of Functional Bioscience, Fukuoka Dental College, <sup>2</sup>Oral Medicine Research Center, Fukuoka Dental College, <sup>3</sup>Molecular Microbiology Group, Department of Infectious Diseases, Tropical Biosphere Research Center, and Department of Host Defense, Graduate School of Medicine, University of the Ryukyus

WS16-23-P

### Caspase-11-mediated inflammasome activation exacerbates *Acinetobacter* infection

○ Yasuyuki Matsuda, Hajime Yamauchi, Hideki Hara

Asahikawa Medical Univ.

WS16-24-P

### Mechanism of inflammasome activation through Lyn-Syk signalling in *L.monocytogenes* infection

○ Hajime Yamauchi, Yasuyuki Matsuda, Hideki Hara

Dept. Microbiol. Immunochem., Asahikawa Med. Univ.

## January 18

### WS17 T cell biology in diseases and environments

WS17-01-O/P

#### Dysfunction of proteasomes in T cells causes immunodeficiency

○ Erkhembayar Shinebaatar, Junko Morimoto, Hiroyuki Kondo, Koji Yasutomo

Tokushima university

WS17-02-P

#### Reactive persulfide controls intestinal inflammation by suppressing CD4<sup>+</sup> T cell proliferation

○ Shunichi Tayama<sup>1</sup>, Yuya Kitamura<sup>1</sup>, Kyoga Hiraide<sup>1</sup>, Hibiki Suzuki<sup>1</sup>, Jing Li<sup>1</sup>, Ziyang Yang<sup>1</sup>, Kosuke Sato<sup>1</sup>, Akihisa Kawajiri<sup>1</sup>, Yuko Okuyama<sup>1</sup>, Takeshi Kawabe<sup>1</sup>, Takaaki Akaike<sup>2</sup>, Naoto Ishii<sup>1</sup>

<sup>1</sup>Tohoku University Graduate School of Medicine, Department of Microbiology and Immunology, <sup>2</sup>Tohoku University Graduate School of Medicine, Department of Environmental and Molecular Toxicology

WS17-03-P

#### Metabolic Impairments in Peripheral Blood Mononuclear Cells (PBMCs) after BNT162b2 Vaccination in Liver-Transplantation (LT) Adolescents

○ Supraanee Buranapraditkun<sup>1,2,3</sup>, Varattaya Saengchaisukhonkit<sup>2</sup>, Siriporn Khunsri<sup>2</sup>, Pattarawat Thantiworasit<sup>5</sup>, Arkom Chaiwongkot<sup>6</sup>, Nakin Kitkumthorn<sup>4</sup>, Palittiya Sintusek<sup>2</sup>

<sup>1</sup>Division of Allergy and Clinical Immunology, Department of Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand, <sup>2</sup>Thai Pediatric Gastroenterology, Hepatology and Immunology (TPGHAI) Research Unit, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand, <sup>3</sup>Center of Excellence in Vaccine Research and Development (Chula Vaccine Research Center-Chula VRC), Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand, <sup>4</sup>Department of Oral Biology, Faculty of Dentistry, Mahidol University, Bangkok 10400, Thailand, <sup>5</sup>King Chulalongkorn Memorial Hospital, Thai Red Cross Society, Bangkok 10330, Thailand, <sup>6</sup>Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok 10330, Thailand

WS17-04-P

#### Effects of Intravenous Anesthesia on Adaptive Immunity

○ Susumu Hiraoka<sup>2,1</sup>, Hiroki Satooka<sup>1</sup>, Takako Hirata<sup>1</sup>

<sup>1</sup>Department of Fundamental Biosciences, Shiga University of Medical Science, <sup>2</sup>Department of Anesthesiology, Shiga University of Medical Science

WS17-05-O/P

#### Neo-self antigens are the primary target of autoreactive T cells in lupus patients

○ Shunsuke Mori<sup>1</sup>, Hisashi Arase<sup>1,2</sup>

<sup>1</sup>Laboratory of Immunochemistry, World Premier International Immunology Frontier Research Centre, Osaka University, <sup>2</sup>Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University

WS17-06-P

### **miR-147-3p in CD4 T cells controls the pathogenesis of autoimmune diseases**

○ Norifumi Iijima<sup>1)</sup>, Tomoya Hayashi<sup>1,3)</sup>, Yuxiang Rui<sup>1)</sup>, Yuta Ohira<sup>4)</sup>, Yoichi Miyamoto<sup>1)</sup>, Masaaki Niino<sup>2)</sup>, Osamu Suzuki<sup>1)</sup>, Masahiro Oka<sup>1)</sup>, Ken J Ishii<sup>1,3)</sup>

<sup>1)</sup>National Institutes of Biomedical Innovation, Health and Nutrition, <sup>2)</sup>National Hospital Organization Hokkaido Medical Center, <sup>3)</sup>The Institute of Medical Science, The University of Tokyo, <sup>4)</sup>Zeria Pharmaceutical Co, Ltd

WS17-07-P

### **Anti-inflammatory effects of *Bacillus coagulans* on animal models of acute and chronic inflammation through immune regulation**

○ Ming-Shiou Jan<sup>1,2)</sup>, Yu-Ching Yang<sup>1)</sup>, Li-Jeng Chen<sup>1)</sup>, Chiou-Feng Lin<sup>3)</sup>, Szu-Wei Huang<sup>4)</sup>

<sup>1)</sup>Institute of Medicine, Chung Shan Medical University, Taichung, Taiwan, <sup>2)</sup>Department of Health Industry Technology Management, Chung Shan Medical University, Taichung, Taiwan, <sup>3)</sup>Department of Microbiology and Immunology, Taipei Medical University, Taipei, Taiwan, <sup>4)</sup>Department of Veterinary Medicine, National Chiayi University, Chiayi, Taiwan

WS17-08-O/P

### **Thioredoxin-interacting protein is essential for memory T cell formation via the regulation of the redox metabolism**

○ Kota Kokubo<sup>1)</sup>, Kiyoshi Hirahara<sup>1)</sup>, Masahiro Kiuchi<sup>1)</sup>, Kaori Tsuji<sup>1)</sup>, Yuri Sonobe<sup>1)</sup>, Rie Shinmi<sup>1)</sup>, Takahisa Hishiya<sup>1)</sup>, Chiaki Iwamura<sup>1)</sup>, Atsushi Onodera<sup>2)</sup>, Toshinori Nakayama<sup>1,3)</sup>

<sup>1)</sup>Department of Immunology, Graduate School of Medicine, Chiba University, <sup>2)</sup>Institute for Advanced Academic Research, Chiba University, <sup>3)</sup>Core Research for Evolutionary Science and Technology, Japan Agency for Medical Research and Development

WS17-09-P

### **A novel subpopulation of fibroblasts involved in the formation of inducible bronchus-associated lymphoid tissue (iBALT)**

○ Takahisa Hishiya<sup>1)</sup>, Masahiro Kiuchi<sup>1)</sup>, Toshinori Nakayama<sup>2)</sup>, Kiyoshi Hirahara<sup>1)</sup>

<sup>1)</sup>The department of Immunology, Graduate school of medicine, Chiba University, Japan, <sup>2)</sup>Chiba University

WS17-10-P

### **Inflamed tissue-derived unsaturated fatty acids induce memory-type pathogenic Th2 cells via the PPAR $\gamma$ -ST2 axis**

○ Hiroyuki Yagyu<sup>1,2)</sup>, Masahiro Kiuchi<sup>1)</sup>, Kota Kokubo<sup>1)</sup>, Atsushi Sasaki<sup>1)</sup>, Takeshi Kaneko<sup>2)</sup>, Toshinori Nakayama<sup>3)</sup>, Kiyoshi Hirahara<sup>1)</sup>

<sup>1)</sup>Department of Immunology, Graduate School of Medicine, Chiba University, <sup>2)</sup>Department of Pulmonology, Graduate School of Medicine, Yokohama City University, <sup>3)</sup>Chiba University

WS17-11-P

### **Memory T helper cell differentiation regulated by a type 1 conventional dendritic cell subpopulation**

○ Kokoro Ohki<sup>1)</sup>, Yoshina Matsushima<sup>1)</sup>, Shintaro Hojo<sup>2)</sup>, Tsuneyasu Kaisho<sup>3)</sup>, Koji Tokoyoda<sup>1)</sup>

<sup>1)</sup>Division of Immunology, School of Life Science, Faculty of Medicine, Tottori University, Yonago, Japan, <sup>2)</sup>Department of Molecular Pathogenesis, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan, <sup>3)</sup>Department of Physiological Regulation Mechanisms, School of Medicine, Wakayama Medical University, Wakayama, Japan

WS17-12-P

### **Production of proinflammatory cytokines by tissue resident memory T cells is regulated by the integrated stress response pathway**

○ Nariaki Asada, Pauline Ginsberg, Ulf Panzer

The Medical Center Hamburg-Eppendorf (UKE)

WS17-13-P

### **Macrophages function as survival niches for CD4<sup>+</sup> skin-resident memory T cells**

○ Akihiko Murata, Koji Tokoyoda

Division of Immunology, Department of Molecular and Cellular Biology, School of Life Science, Faculty of Medicine, Tottori University, Japan

WS17-14-P

### **Critical roles of IFN- $\lambda$ and MHC-II-associated microglia on the development and regulation of Eomes-expressing helper T cells under neurodegeneration**

○ Tzu-wen Yeh<sup>1)</sup>, Chenyang Zhang<sup>1)</sup>, Ben Raveney<sup>1)</sup>, Fumio Takahashi<sup>1)</sup>, Marco Prinz<sup>2)</sup>, Takashi Yamamura<sup>1)</sup>, Shinji Oki<sup>1)</sup>

<sup>1)</sup>National Center of Neurology and Psychiatry, <sup>2)</sup>Institute of Neuropathology, University of Freiburg, Freiburg, Germany

WS17-15-O/P

### **Age-associated cytotoxic CD4<sup>+</sup> T cells in patients with autoimmune diseases**

○ Hideyuki Takahashi<sup>1</sup>, Manaka Goto<sup>1</sup>, Ryochi Yoshida<sup>1</sup>, Takahiro Itamiya<sup>1,2</sup>, Masahiro Nakano<sup>3,4</sup>, Meiko Maeda<sup>5</sup>, Akatsuki Kubota<sup>5</sup>, Tatsushi Toda<sup>5</sup>, Kazuyoshi Ishigaki<sup>3</sup>, Mineto Ota<sup>1</sup>, Tomohisa Okamura<sup>1,2</sup>, Keishi Fujio<sup>1</sup>

<sup>1</sup>Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, <sup>2</sup>Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, <sup>3</sup>Laboratory for Human Immunogenetics, RIKEN Center for Integrative Medical Sciences, <sup>4</sup>Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences, <sup>5</sup>Department of Neurology, Graduate School of Medicine, The University of Tokyo

WS17-16-P

### **Idiopathic Multi-centric Castleman Disease (iMCD) has been known as an abnormal immunoregulatory disorder with infiltration of CXCL-13-producing Tph cells in the affected lymph nodes**

○ Kazuyuki Yoshizaki  
SANKEN, Osaka University

WS17-17-P

### **Understand how cDC1-mediated support guides TCF1 populations**

○ Stefania Vilbois<sup>1,2</sup>, Alexandre Bénéchet<sup>3</sup>, Francesca Alfei<sup>4</sup>, Tzu-Hsuan Chang<sup>1,2</sup>, Pei-Chun Hsueh<sup>1,2</sup>, Werner Held<sup>1</sup>, Ping-Chih Ho<sup>1,2</sup>

<sup>1</sup>Department of Oncology, University of Lausanne, Epalinges, Switzerland, <sup>2</sup>Ludwig Institute for Cancer Research, University of Lausanne, Epalinges, Switzerland, <sup>3</sup>In Vivo Imaging Facility (IVIF), Department of Research and Training, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland, <sup>4</sup>Amal Therapeutics, Av. de la Roseraie 64, Genève, Switzerland

WS17-18-P

### **Themis regulates CD8-dependent contact hyper sensitivity**

○ Masayuki Kitajima, Toshiyuki Okada, Harumi Suzuki  
Dept. of Immunology and Pathology, Research Institute National Center for Global Health and Medicine

WS17-19-P

### **Clonal replacement of memory CD8<sup>+</sup> T cell upon repetitive antigen stimulation**

○ Yamato Tanabe, Makoto Kurachi  
Department of Molecular Genetics, Kanazawa University

WS17-20-P

### **Analysis of Immune Cells in Amyotrophic Lateral Sclerosis**

○ Yoshihiro Harada, Mio Kawazoe, Ako Matsui, Minako Ito  
Division of Allergy and Immunology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

WS17-21-O/P

### **An antigen-specific therapeutic strategy using stabilized iTreg for pemphigus**

○ Miho Mukai<sup>1</sup>, Hayato Takahashi<sup>1</sup>, Norihisa Mikami<sup>2</sup>, Shimon Sakaguchi<sup>2</sup>, Masayuki Amagai<sup>1</sup>

<sup>1</sup>Dermatology, Keio University School of Medicine, Tokyo, <sup>2</sup>Experimental Immunology, Immunology Frontier Research Center, Osaka University, Osaka

WS17-22-O/P

### **VeDTR mice employing an intersectional genetic method specifically delineate Th1-type Treg cells and their roles in tumor immunity**

○ Masaaki Okamoto<sup>1</sup>, Masahiro Yamamoto<sup>1,2,3</sup>

<sup>1</sup>Department of Immunoparasitology, Research Institute for Microbial Diseases, <sup>2</sup>Laboratory of Immunoparasitology, WPI Immunology Frontier Research Center, <sup>3</sup>Department of Immunoparasitology, Center for Infectious Disease Education and Research

WS17-23-O/P

### **The effects of immune response and Oxytocin on ischemic resistance**

○ Ako Matsui, Yoshihiro Harada, Mio Kawazoe, Minako Ito  
Division of Allergy and Immunology, Medical Institute of Bioregulation, Kyushu University

WS17-24-P

### **Altered number of CD8 positive regulatory T cells (CD8<sup>+</sup>Treg) in peripheral blood and therapeutic potential of the induction of CD8<sup>+</sup>Treg differentiation by CDK8/19 inhibitor in patients with primary Sjögren's syndrome (pSS)**

○ Hirofumi Toko, Hiroto Tsuboi, Hiroyuki Takahashi, Fumika Honda, Saori Abe, Ayako Oyama, Haruka Miki, Hiromitsu Asashima, Yuya Kondo, Takayuki Sumida, Isao Matsumoto

Department of Rheumatology, Institute of Medicine, University of Tsukuba

WS17-25-P

### **Functional differences between brain and spinal cord Tregs and tissue repair**

○ Mahiro Watanabe, Ako Matsui, Mio Kawazoe, Yoshihiro Harada, Minako Ito  
Kyushu University Medical Institute of Bioregulation Division of Allergy and Immunology

WS17-26-O/P

### **Naïve-like Follicular Tregs (nTfr) in human blood are primed for differentiation into mature Tfr and disrupted during severe infections**

○ Janyerkye Tulyeu<sup>1</sup>, Jonas Noerskov Soendergaard<sup>1</sup>, David Priest<sup>2</sup>, Yuki Togami<sup>3</sup>, Takeshi Ebihara<sup>3</sup>, Hisatake Matsumoto<sup>3</sup>, Hiroshi Ogura<sup>3</sup>, Shimon Sakaguchi<sup>4,5</sup>, James Badger Wing<sup>1,2</sup>

<sup>1</sup>Human Single Cell Immunology Team, CiDER, Osaka University, <sup>2</sup>Laboratory of Human Single Cell Immunology, IFRc, Osaka University, <sup>3</sup>Department of Traumatology and Acute Critical Medicine, Osaka University Graduate School of Medicine, <sup>4</sup>Laboratory of Experimental Immunology IFRc, Osaka University, <sup>5</sup>Department of Experimental Pathology, Institute for Frontier Medical Sciences, Kyoto University

WS17-27-P

### **Exploring the role of $\gamma\delta$ T cells in the pathogenesis of Autism Spectrum Disorder**

○ Natsumi Awata, Ako Matsui, Mahiro Watanabe, Ayame Nagafuchi, Yoshihiro Harada, Mio Kawazoe, Minako Ito  
Medical Institute of Bioregulation, Kyushu University

WS17-28-P

### **$\gamma\delta$ T cells induce the maturation of type I dendritic cells which drives Th1 differentiation of antigen-specific CD4<sup>+</sup> T cells in *Plasmodium chabaudi* infection**

○ Yarob Ibraheem<sup>1</sup>, Ganchimeg Bayarsaikhan<sup>1</sup>, Maria Lourdes Macalinao<sup>2</sup>, Kazumi Kimura<sup>1,3</sup>, Katsuyuki Yui<sup>4</sup>, Shin-Ichi Inoue<sup>1</sup>

<sup>1</sup>Division of Immunology, Department of Molecular Microbiology and Immunology, Graduate School of Biomedical Sciences, Nagasaki University, <sup>2</sup>School of Tropical Medicine and Global Health, Nagasaki University, <sup>3</sup>Biomedical Research Support Center, Nagasaki University School of Medical Sciences, <sup>4</sup>Institute of Tropical Medicine, Nagasaki University

## January 18

### **WS18 Dendritic cells & Macrophages: development, function and regulation of immune response and disease**

WS18-01-O/P

#### **Functional analysis of transcription factors PU.1 and SpiB in the determination of dendritic cell fate**

○ Naoto Ito<sup>1</sup>, Mayumi Hirakawa<sup>2</sup>, Natsuki Minamikawa<sup>1</sup>, Mayuka Katagiri<sup>1</sup>, Kazuki Nagata<sup>1</sup>, Tomokatsu Ikawa<sup>2</sup>, Chiharu Nishiyama<sup>1</sup>

<sup>1</sup>Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science, <sup>2</sup>Research Institute for Biomedical Sciences, Tokyo University of Science

WS18-02-O/P

#### **Direct reprogramming of fibroblasts into functional dendritic cells by defined factors**

○ Yutaro Kumagai

Department of Life Science and Biotechnology, National Institute of Advanced Industrial Science and Technology

WS18-03-O/P

#### **Analysis of transcriptomes of rat dendritic cell subsets and newly discovered CD103<sup>+</sup> DC-like cells**

○ Yasushi Sawanobori, Hisashi Ueta, Yusuke Kitazawa, Nobuko Tokuda

Anatomy, Dokkyo Medical University

WS18-04-O/P

#### **Sequential Notch2 and retinoic acid signals license IL-23 expression by EpCAM<sup>+</sup> DCIR2<sup>+</sup> CD103<sup>+</sup> cDC2 in gut-associated lymphoid tissues**

○ Daiya Ohara<sup>1</sup>, Yusuke Takeuchi<sup>1</sup>, Hitomi Watanabe<sup>1</sup>, Yoonha Lee<sup>1</sup>, Hiroki Mukoyama<sup>1</sup>, Toshiaki Ohteki<sup>2</sup>, Gen Kondoh<sup>1</sup>, Keiji Hirota<sup>1</sup>

<sup>1</sup>Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Medical Research Institute Tokyo Medical and Dental University

WS18-05-O/P

#### **FBXO11 constitutes a major negative regulator of MHC class II**

○ Yusuke Kasuga<sup>1</sup>, Ryota Ouda<sup>1</sup>, Masashi Watanabe<sup>2</sup>, Xin Sun<sup>1</sup>, Miki Kimura<sup>1</sup>, Shigetsugu Hatakeyama<sup>2</sup>, Koichi Kobayashi<sup>1,3</sup>

<sup>1</sup>Department of Immunology, Hokkaido University Graduate School of Medicine, <sup>2</sup>Department of Medical Chemistry, Hokkaido University Graduate School of Medicine, <sup>3</sup>Hokkaido University Institute for Vaccine Research and Development

WS18-06-O/P

#### **NR4A3 deficiency deteriorates psoriasis by amplifying TLR7-mediated activation of dendritic cells**

○ Mayuka Katagiri<sup>1</sup>, Naoto Ito<sup>1</sup>, Natsuki Minamikawa<sup>1</sup>, Kazuki Nagata<sup>1</sup>, Akihiko Yoshimura<sup>2</sup>, Chiharu Nishiyama<sup>1</sup>

<sup>1</sup>Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science, <sup>2</sup>Department of Microbiology and Immunology, Keio University School of Medicine

WS18-07-O/P

### **Kaempferol exhibits an anti-inflammatory effect through AhR-mediated upregulation of RALDH2 in dendritic cells**

○ Miki Takahashi, Kazuki Nagata, Yumi Watanuki, Masaki Yamaguchi, Takuya Yashiro, Sakura Noguchi, Chiharu Nishiyama

Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science

WS18-08-P

### **Lipid oxidation and dendritic cell maturation using a singlet oxygen-generating cell culture dish**

○ Toru Yoshitomi, Van Thi Hong Doan, Naoki Kawazoe, Guoping Chen

National Institute for Materials Science

WS18-09-P

### **Phenotypic plasticity in suppressive function of dendritic cells mediated by Treg cells**

○ Yoshihiro Oya<sup>1,2,4)</sup>, Ryutaro Matsumura<sup>2)</sup>, Hiroshi Nakajima<sup>3)</sup>, Ethan M Shevach<sup>4)</sup>

<sup>1)</sup>Laboratory of Autoimmune diseases, National Hospital Organization Chibahigashi National Hospital, <sup>2)</sup>Allergy & Clinical Immunology, National Hospital Organization Chibahigashi National Hospital, <sup>3)</sup>Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, <sup>4)</sup>Laboratory of Immune System Biology, National Institute of Allergy and Infectious Diseases, National Institutes of Health

WS18-10-P

### **Nasal double DNA adjuvant system induces CD11b-positive dendritic cells and regulatory T cells in *ApoE* KO mice**

○ Hideki Yoshimatsu<sup>1)</sup>, Kosuke Kataoka<sup>1,2)</sup>, Tatsuro Miyake<sup>1)</sup>, Kohtaro Fujihashi<sup>3,4,5)</sup>

<sup>1)</sup>Department of Preventive and Community Dentistry, Osaka Dental University, <sup>2)</sup>Department of Oral Health Science and Social Welfare, Graduate School of Biomedical Sciences, Tokushima University, <sup>3)</sup>Department of Human Mucosal Vaccinology, Chiba University Hospital, Research Institute of Disaster Medicine, Chiba University, <sup>4)</sup>Division of Mucosal Vaccines, International Vaccine Design Center, The Institute of Medical Science, The University of Tokyo, <sup>5)</sup>Department of Pediatric Dentistry, School of Dentistry, The University of Alabama at Birmingham

WS18-11-P

### **Transport of skin-specific self-antigen by XCR1-positive dermal dendritic cells**

○ Miya Yoshino, Kokoro Ohki, Koji Tokoyoda

Division of Immunology, Department of Molecular and Cellular Biology, School of Life Science, Faculty of Medicine, Tottori University

WS18-12-P

### **The Impact of Chitosan as a Vaccine Adjuvant**

○ Eri Nagai<sup>1)</sup>, Takumi Kawasaki<sup>1,2)</sup>, Daisuke Ori<sup>1)</sup>, Taro Kawai<sup>1)</sup>

<sup>1)</sup>Laboratory of Molecular Immunobiology, Division of Biological Science, Graduate School of Science and Technology, Nara Institute of Science and Technology (NAIST), <sup>2)</sup>Department of Immune Dynamics in Viral Infections, National Research Center for the Control and Prevention of Infectious Diseases, Nagasaki University

WS18-13-P

### **The unique fluctuation on immune cell populations induced by CB2 receptor under systemic inflammation**

○ Haruka Hosoki<sup>1)</sup>, Chihiro Nozaki<sup>2)</sup>, Toru Asahi<sup>1,3)</sup>

<sup>1)</sup>Graduate School of Advanced Science and Engineering, Waseda University, <sup>2)</sup>Global Center of Science and Engineering, Waseda University, <sup>3)</sup>Research Organization for Nano & Life Innovation, Waseda University

WS18-14-O/P

### **Role of CCR2-dependent MHCII<sup>high</sup> interstitial macrophages in ILC2 regulation during asthma**

○ Naoto Fujioka<sup>1,2)</sup>, Tetsuro Kobayashi<sup>1)</sup>, Kazuyo Moro<sup>1,2,3)</sup>

<sup>1)</sup>Laboratory for Innate Immune Systems, RIKEN IMS, <sup>2)</sup>Laboratory for Innate Immune Systems, Department of Immunology and Microbiology, Osaka University Graduate School of Medicine, <sup>3)</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center

WS18-15-P

### **Induction of antigen specific resident memory CD8<sup>+</sup> T cells by Alveolar macrophages**

○ Takumi Kawasaki<sup>1)</sup>, Daisuke Dori<sup>2)</sup>, Taro Kawai<sup>2)</sup>

<sup>1)</sup>National Research Center for the Control and Prevention of Infectious Diseases Nagasaki University, <sup>2)</sup>Nara Institute of Science and Technology (NAIST)

WS18-16-P

### **A periportal Kupffer cell subset prevents against commensal bacteria-driven liver inflammation**

○ Yu Miyamoto, Junichi Kikuta, Masaru Ishii

Department of Immunology and Cell Biology, Osaka University Graduate School of Medicine

WS18-17-P

### **Periportal Kupffer cells physically retain lymphocytes for host defense against commensal invasion in the liver**

○ Yuta Suzuki<sup>1)</sup>, Yu Miyamoto<sup>2)</sup>, Masaru Ishii<sup>1,2)</sup>

<sup>1)</sup>Department of Immunology and Cell Biology, Osaka University Graduate school of Frontier Bioscience, <sup>2)</sup>Department of Immunology and Cell Biology, Osaka University Graduate school of Medicine

WS18-18-P

### Novel phenotypical and functional sub-classification of liver macrophages highlights changes in population dynamics in experimental mouse models

○ Hiroyuki Nakashima<sup>1</sup>, Bradley Michael Kearney<sup>1</sup>, Azusa Kato<sup>1</sup>, Hiromi Miyazaki<sup>2</sup>, Seigo Ito<sup>3</sup>, Masahiro Nakashima<sup>1</sup>, Manabu Kinoshita<sup>1</sup>

<sup>1</sup>Immunology and Microbiology, National Defense Medical College, <sup>2</sup>Division of Biomedical Engineering, National Defense Medical College Research Institute, <sup>3</sup>Department of Internal Medicine, Self-Defense Force Iruma Hospital

## January 18

### WS19 Mucosal-skin immunity 1

WS19-01-O/P

#### Inducible loss of claudin-1 in keratinocytes leads to the induction of itch transmitted by multiple types of sensory nerves

○ Susumu Toshima<sup>1,2</sup>, Sonoko Takahashi<sup>1</sup>, Akiharu Kubo<sup>2,3</sup>, Masayuki Amagai<sup>2,4</sup>, Takaharu Okada<sup>1</sup>

<sup>1</sup>Laboratory for Tissue Dynamics, Center for Integrative Medical Science, RIKEN, <sup>2</sup>Department of Dermatology, Keio University School of Medicine, <sup>3</sup>Division of Dermatology, Department of Internal Related, Kobe University Graduate School of Medicine, <sup>4</sup>Laboratory for Skin Homeostasis, Center for Integrative Medical Science, RIKEN

WS19-02-P

#### Concomitant Nonalcoholic Steatohepatitis Worsens Psoriasis Associated with Decreased Adiponectin Expression in a Mouse Model

○ Daiki Takezaki<sup>1,2</sup>, Shin Morizane<sup>1</sup>, Kenta Ikeda<sup>3</sup>, Masanori Iseki<sup>2</sup>, Yuma Sakamoto<sup>2</sup>, Yoshio Kawakami<sup>1</sup>, Taishi Hashiguchi<sup>4</sup>, Yuka Shirakata<sup>4</sup>, Sohji Nishina<sup>4,5</sup>, Tomoyuki Mukai<sup>2</sup>

<sup>1</sup>Department of Dermatology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, <sup>2</sup>Department of Immunology and Molecular Genetics, Kawasaki Medical School, <sup>3</sup>Department of Dermatology, National Hospital Organization Iwakuni Clinical Center, <sup>4</sup>SMC Laboratories, Inc., <sup>5</sup>Department of Gastroenterology and Hepatology, Kawasaki Medical School

WS19-03-O/P

#### Constipation enhances gut-skin axis imbalance and worsens acne in the novel constipation-acne mouse model

○ Masakazu Tamai<sup>1</sup>, Takashi Sugihira<sup>1,2</sup>, Yuriko Yamazaki<sup>1,3</sup>, Seitaro Nakagawa<sup>1,2</sup>, Manabu Fujimoto<sup>1,4</sup>, Yumi Matsuoka-Nakamura<sup>1,2,3</sup>

<sup>1</sup>Department of Dermatology, Graduate School of Medicine, Osaka University, <sup>2</sup>Department of Cutaneous Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>3</sup>Cutaneous Allergy and Host Defense, Immunology Frontier Research Center, Osaka University, <sup>4</sup>Cutaneous Immunology, Immunology Frontier Research Center, Osaka University

WS19-04-P

#### Opsin molecule: A potential communicator between the circadian rhythm and skin-epithelial barrier (immunity) upon blue light exposure

○ Agnia Vibriani, Susumu Kajiwara, Kanami Orihara

Human centered science and biomedical engineering. Tokyo Institute of Technology

WS19-05-O/P

#### Skin-resident ILC1s coordinate epithelial stress surveillance

○ Tetsuro Kobayashi<sup>1</sup>, Menglu Li<sup>2</sup>, Daisuke Asanuma<sup>3</sup>, Shigeyuki Namiki<sup>3</sup>, Kenzo Hirose<sup>3</sup>, Katsumasa Fujita<sup>2</sup>, Kazuyo Moro<sup>1,4,5</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, RIKEN IMS, <sup>2</sup>Department of Applied Physics, Graduate School of Engineering, Osaka University, <sup>3</sup>Department of Pharmacology, Graduate School of Medicine, The University of Tokyo, <sup>4</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>5</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC)

WS19-06-P

#### Topical application of Cha-koji, the green tea leaves fermented with *Aspergillus luchuensis* var *kawachii* kitahara, on the skin promotes acute cutaneous wound healing in mice

○ Yasuhiro Katahira, Aruma Watanabe, Satomi Miyakawa, Hideaki Hasegawa, Izuru Mizoguchi, Takayuki Yoshimoto

Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University

WS19-07-O/P

#### Differentiation and function of iBALT M cells induced by influenza infection

○ Shingo Kawai<sup>1</sup>, Shunsuke Kimura<sup>1</sup>, Takahiro Yamada<sup>1,2</sup>, Yutaka Nakamura<sup>1,3</sup>, Shinichiro Sawa<sup>4</sup>, Koji Hase<sup>1</sup>

<sup>1</sup>Division of Biochemistry, Faculty of Pharmacy, Keio University, <sup>2</sup>Department of Immunology, Yale School of Medicine, <sup>3</sup>Department of Microbiology and Immunology, School of Pharmaceutical Sciences, Wakayama Medical University, <sup>4</sup>Division of Mucosal Immunology, Research Center for Systems Immunology, Medical Institute of Bioregulation, Kyushu University



WS19-08-P

### The molecular route of conjunctival goblet cell associated antigen passage

○ Yasuharu Kume<sup>1,2,3</sup>, Tomoaki Ando<sup>1</sup>, Meiko Kimura<sup>1,2,3</sup>, Saaya Fukase<sup>1,2,3</sup>, Moe Matsuzawa<sup>1,2,3</sup>, Kumi Izawa<sup>1</sup>, Ayako Kaitani<sup>1</sup>, Nobuhiro Nakano<sup>1</sup>, Ko Okumura<sup>1</sup>, Shintaro Nakao<sup>3</sup>, Nobuyuki Ebihara<sup>2,3</sup>, Jiro Kitaura<sup>1</sup>

<sup>1</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2</sup>Department of Ophthalmology, Juntendo University Urayasu Hospital, <sup>3</sup>Department of Ophthalmology, Juntendo University Graduate School of Medicine

WS19-09-P

### IL-22 regulates salivary $\beta$ -defensin 3 production after lactic acid bacteria administration

○ Ryoki Kobayashi, Tomomi Takizawa-Hashizume, Hidenobu Senpuku

Department of Microbiology and Immunology, School of Dentistry at Matsudo, Nihon University

WS19-10-P

### Impact of PET-derived microplastics on gut immune microenvironments

○ Akihito Harusato<sup>1</sup>, Wooseok Seo<sup>2</sup>, Yoshitaka Nakanishi<sup>3</sup>, Hirohito Abo<sup>4</sup>, Hiroyoshi Nishikawa<sup>2</sup>, Yoshito Itoh<sup>1</sup>

<sup>1</sup>Kyoto Prefectural University of Medicine, <sup>2</sup>Nagoya University, <sup>3</sup>Kumamoto University, <sup>4</sup>Chiba University

WS19-11-P

### The innate immune receptor RP105 induces metabolic syndrome by intestinal barrier dysfunction and alteration of gut microbial composition

○ Koudai Kani<sup>1</sup>, Yukihiro Furusawa<sup>1</sup>, Koichi Tsuneyama<sup>2</sup>, Yoshinori Nagai<sup>1</sup>

<sup>1</sup>Department of Pharmaceutical Engineering, Faculty of Engineering, Toyama Prefectural University, <sup>2</sup>Department of Pathology and Laboratory Medicine, Tokushima University Graduate School of Bio-medical Sciences

WS19-12-P

### Loss of AID expression under inflammatory condition alters the *Nid1* and *Fbln2* induction and exacerbates intestinal injury

○ Toshiyuki Okada<sup>1</sup>, Takayuki Sadanaga<sup>1,2</sup>, Tomoi Noda<sup>1</sup>, Risako Onitsuka<sup>1</sup>, Atsushi Mizoguchi<sup>1</sup>, Emiko Mizoguchi<sup>1,2</sup>, Shigeaki Saitoh<sup>3</sup>

<sup>1</sup>Department of Immunology, Kurume university, school of medicine, <sup>2</sup>Department of Molecular Microbiology and Immunology, Brown University Alpert Medical School, <sup>3</sup>Department of Cell Biology, Institute of Life Science, Kurume University

WS19-13-P

### Histone modification enzyme Setdb2 contributes to the pathogenesis of ulcerative colitis

○ Yuriko Daijo, Masahiro Kitabatake, Noriko Oujii-Sageshima, Toshihiro Ito

Department of Immunology, Nara Medical University

WS19-14-O/P

### Decoding Interactions between Environmental Small Molecules and Host GPCRs/Olfactory Receptors in the Gut

○ Motohiko Kadoki<sup>1,2,3</sup>, Daniel B Graham<sup>1,2,3</sup>, Ramnik J Xavier<sup>1,2,3</sup>

<sup>1</sup>Massachusetts General Hospital, <sup>2</sup>Broad Institute, <sup>3</sup>Harvard Medical School

WS19-15-O/P

### GPR31 signaling enhances immune responses in Peyer's patches by inducing dendrite protrusion of CX3CR1<sup>+</sup> phagocytes to M cells

○ Katsuhiko Nakanishi, Takayuki Ajiro, Yuki Tsukamoto, Kaito Yukishima, Eiji Umemoto

Laboratory of Microbiology and Immunology, School of Pharmaceutical Sciences, University of Shizuoka

WS19-16-O/P

### The pyruvate-GPR31 axis promotes transepithelial dendrite formation in human intestinal cDC1

○ Eri Oguro-Igashira<sup>1,2</sup>, Mari Murakami<sup>1</sup>, Atsushi Kumanogoh<sup>2</sup>, Kiyoshi Takeda<sup>1</sup>

<sup>1</sup>Laboratory of Immune Regulation, Graduate School of Medicine, Osaka University, Japan, <sup>2</sup>Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University, Japan

WS19-17-O/P

### Unveiling the crucial role of tuft cells in the amelioration of ulcerative colitis through appendectomy

○ Shunya Hatai<sup>1</sup>, Yasutaka Motomura<sup>1,2,3</sup>, Koji Hosomi<sup>4</sup>, Kiyoshi Takeda<sup>5</sup>, Jun Kunisawa<sup>4</sup>, Kazuyo Moro<sup>1,2,3,6</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, Department of Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>2</sup>Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Sciences (IMS), <sup>3</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center, <sup>4</sup>Laboratory of Vaccine Materials, National Institutes of Biomedical Innovation, Health and Nutrition, <sup>5</sup>Laboratory of Immune Regulation, Department of Microbiology, and Immunology, Graduate School of Medicine, Osaka University, <sup>6</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Osaka University Graduate School of Frontier Biosciences

WS19-18-P

### Selective Paneth cell granule secretion in response to pathogenic and commensal bacteria in enteric mucosal immunity

○ Yuki Yokoi<sup>1,2</sup>, Shuya Ohira<sup>1</sup>, Haruto Matsuoka<sup>2</sup>, Shota Takemi<sup>1</sup>, Tokiyoshi Ayabe<sup>1</sup>, Kiminori Nakamura<sup>1,2</sup>

<sup>1</sup>Faculty of Advanced Life Science, Hokkaido University, <sup>2</sup>Graduate School of Life Science, Hokkaido University



WS19-19-P

### **Cholesterol sulfate limits neutrophil recruitment and gut inflammation during mucosal injury**

○ Kenji Morino, Kazufumi Kunimura, Yoshinori Fukui

Division of Immunogenetics, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

WS19-20-P

### **Analysis of GABAergic signaling in intestinal epithelial cells**

○ Mion Ikegami<sup>1)</sup>, Gaku Harata<sup>2)</sup>, Kazutoyo Yoda<sup>2)</sup>, Kenji Miyazawa<sup>2)</sup>, Yusuke Nakanishi<sup>1)</sup>, Kyoko Takahashi<sup>1)</sup>

<sup>1)</sup>Graduate School of Bioresource Sciences, Nihon University, <sup>2)</sup>Technical Research Laboratory, Takasaki Milk Products Co., Ltd

WS19-21-P

### **The deficiency of transcription factor NR4A3 ameliorates inflammatory bowel disease**

○ Natsuki Minamikawa<sup>1)</sup>, Naoto Ito<sup>1)</sup>, Mayuka Katagiri<sup>1)</sup>, Kazuki Nagata<sup>1)</sup>, Akihiko Yoshimura<sup>2)</sup>, Chiharu Nishiyama<sup>1)</sup>

<sup>1)</sup>Department of Biological Science and Technology, Faculty of Advanced Engineering, Tokyo University of Science, <sup>2)</sup>Department of Microbiology and Immunology, Keio University School of Medicine

WS19-22-P

### **Examining the mechanism by which $\gamma\delta$ T cells secrete API5**

○ Yu Matsuzawa<sup>1,2)</sup>, Ken Cadwell<sup>2,3)</sup>

<sup>1)</sup>Clinical and Physiological Laboratory Science, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University,

<sup>2)</sup>Department of Microbiology, New York University Grossman School of Medicine, <sup>3)</sup>Division of Gastroenterology and Hepatology, Department of Medicine, University of Pennsylvania Perelman School of Medicine

WS19-23-P

### **Elucidation of the mechanism of intestinal epithelial barrier disruption by regulatory T cell dysfunction**

○ Ryohei Akasako<sup>1)</sup>, Mitsuki Ito<sup>1)</sup>, Mina Sawaguchi<sup>1)</sup>, Shuhei Ogawa<sup>2)</sup>, Yohsuke Harada<sup>1)</sup>

<sup>1)</sup>Faculty of Pharmaceutical Sciences, Tokyo University of Science, <sup>2)</sup>Research Institute for Biomedical Sciences, Tokyo University of Science

## January 18

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### **WS20 Innate lymphocytes**

WS20-01-O/P

### **Themis2 regulates natural killer cell memory function and formation**

○ Tsukasa Nabekura<sup>1,2,3)</sup>, Elfira Amalia Deborah<sup>2,4)</sup>, Akira Shibuya<sup>1,2,3)</sup>

<sup>1)</sup>Life Science Center for Survival Dynamics, University of Tsukuba, <sup>2)</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba,

<sup>3)</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba, <sup>4)</sup>Doctoral Program in Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba

WS20-02-O/P

### **Mechanisms underlying perturbed NK cell activation during pregnancy**

○ Jennifer Habel<sup>1)</sup>, Oanh Nguyen<sup>1)</sup>, Anastasia Minervina<sup>2)</sup>, E. Kaitlynn Allen<sup>2)</sup>, Jeremy Chase Crawford<sup>2)</sup>, Ilariya Tarasova<sup>1)</sup>, Jan Schroeder<sup>1)</sup>, Martha Lappas<sup>3)</sup>, Susan Walker<sup>3)</sup>, Paul G Thomas<sup>2)</sup>, Louise Rowntree<sup>1)</sup>, Katherine Kedzierska<sup>1,4)</sup>

<sup>1)</sup>Department of Microbiology and Immunology, University of Melbourne at the Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia, <sup>2)</sup>Department of Immunology, St. Jude Children's Research Hospital, Memphis, Tennessee, USA, <sup>3)</sup>Department of Obstetrics and Gynaecology, University of Melbourne, Heidelberg, Victoria, Australia, <sup>4)</sup>Global Institution for Collaborative Research and Education (GI-CoRE), Hokkaido University, Sapporo, Japan

WS20-03-P

### **Role of homeostatic MHC class I recognition in regulating anti-tumor effector function of lung NK cells**

○ Ka He, Yui Yamamae, So-Ichiro Sasaki, Yoshihiro Hayakawa

Institute of Natural Medicine, Toyama Univ.

WS20-04-P

### **Imatinib activates NK cells through up-regulation of CD112/CD155 expression on chronic myeloid leukemia cells**

○ Arisa Kato<sup>1,2)</sup>, Huong Thi Ngo<sup>2)</sup>, Takero Shindo<sup>2)</sup>, Kazuharu Kamachi<sup>3)</sup>, Takeshi Inukai<sup>4)</sup>, Shinya Kimura<sup>3)</sup>, Akifumi Takaori-Kondo<sup>2)</sup>

<sup>1)</sup>Laboratory of Single-Molecule Cell Biology, Kyoto University Graduate school of Biostudies, Kyoto, Japan, <sup>2)</sup>Department of Hematology and Oncology, Kyoto University Graduate School of Medicine, Kyoto, Japan, <sup>3)</sup>Division of Hematology, Respiratory Medicine and Oncology, Department of Internal Medicine, Faculty of Medicine, Saga University, Saga, Japan, <sup>4)</sup>Department of Pediatrics, School of Medicine, University of Yamanashi, Chuo, Japan

WS20-05-O/P

### **The metabolic adaptation is necessary for iNKT cells to differentiate into the follicular subset, which is regulated by Gr-1<sup>+</sup> cells**

○ Koji Hayashizaki<sup>1</sup>, Yasuhiro Kamii<sup>1</sup>, Toshio Kanno<sup>2</sup>, Masato Kubo<sup>3</sup>, Toshiaki Ohteki<sup>4</sup>, Kazuyoshi Kawakami<sup>5</sup>, Yusuke Endo<sup>2</sup>, Yuki Kinjo<sup>1</sup>

<sup>1</sup>Department of Bacteriology, The Jikei University School of Medicine, <sup>2</sup>Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, <sup>3</sup>Division of Molecular Pathology, Research Institute for Biomedical Sciences (RIBS), Tokyo University of Science, <sup>4</sup>Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University, <sup>5</sup>Department of Medical Microbiology, Mycology and Immunology, Tohoku University Graduate School of Medicine

WS20-06-O/P

### **Zeb2 regulates differentiation of memory invariant NKT cells**

○ Tomonori Iyoda<sup>1</sup>, Kanako Shimizu<sup>1,2,3</sup>, Takaho Endo<sup>4</sup>, Hiroshi Nakazato<sup>1</sup>, Satoru Yamasaki<sup>1</sup>, Shin-ichiro Fujii<sup>1,2,3</sup>

<sup>1</sup>Laboratory for Immunotherapy, RIKEN Center for Integrative Medical Sciences, <sup>2</sup>aAVC Drug Translational Unit, RIKEN Center for Integrative Medical Sciences, <sup>3</sup>Program for Drug Discovery and Medical Technology Platforms, RIKEN, <sup>4</sup>Laboratory for Integrative Genomics, RIKEN Center for Integrative Medical Sciences

WS20-07-O/P

### **Type 1 innate lymphoid cells protect the liver from ischemia-reperfusion injury in mice**

○ Kenshiro Matsuda<sup>1,2,3</sup>, Akira Shibuya<sup>1,2,3</sup>

<sup>1</sup>Department of Immunology, Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba, <sup>2</sup>Department of Immunology, Institute of Medicine, University of Tsukuba, <sup>3</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba

WS20-08-P

### **Group2 innate lymphoid cells ameliorate renal fibrosis and dysfunction associated with adenine-induced CKD**

○ Ryuichi Nagashima<sup>1</sup>, Hiroki Ishikawa<sup>1</sup>, Yoshihiro Kuno<sup>1,2</sup>, Chikara Kohda<sup>1</sup>, Masayuki Iyoda<sup>1,2</sup>

<sup>1</sup>Department of Microbiology and Immunology, Showa University School of Medicine, <sup>2</sup>Division of Nephrology, Department of Medicine, Showa University School of Medicine

WS20-09-O/P

### **ILC2s exacerbate endometriosis via amphiregulin**

○ Kentaro Kubota<sup>1,2</sup>, Tsuyoshi Kiniwa<sup>1</sup>, Kazuyo Moro<sup>1,2,3</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, RIKEN IMS, <sup>2</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>3</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC)

WS20-10-P

### **NFIL3 is a key transcription factor for the function of lungs-derived ILC-2 cells**

○ Ahmed Samir Abu Tayeh<sup>1</sup>, Kosuke Miyauti<sup>1</sup>, Narumi Suzuki<sup>1</sup>, Mathis Ratei<sup>1</sup>, Masato Kubo<sup>1,2</sup>

<sup>1</sup>Laboratory for Cytokine Regulation, Research Center for Integrative Medical Sciences (IMS), RIKEN Yokohama Institute, Yokohama, Kanagawa, Japan, <sup>2</sup>Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Chiba, Japan

WS20-11-P

### **Investigation of RUNX/CBF $\beta$ role for ILC3 and GALT formation**

○ Reo Kobayashi<sup>1</sup>, Miyuki Watanabe<sup>1</sup>, Eriko Sumiya<sup>2</sup>, Shinichiro Sawa<sup>1</sup>

<sup>1</sup>Department of Mucosal immunology, Medical Institute of Bioregulation, Kyushu University, <sup>2</sup>Department of Orthopedic Surgery, Faculty of Medicine, The University of Tokyo

WS20-12-O/P

### **Age-dependent expansion of group 3 innate lymphoid cells contributes to neutrophilic acute lung injury**

○ Masato Asaoka<sup>1,2</sup>, Tetsuro Kobayashi<sup>1</sup>, Tommy Walter Terootea<sup>3</sup>, Jen Chien Chang<sup>3</sup>, Aki Minoda<sup>3</sup>, Koichi Fukunaga<sup>2</sup>, Hiroki Kabata<sup>2</sup>, Kazuyo Moro<sup>1,4,5</sup>

<sup>1</sup>Laboratory for Innate Immune systems, Center for Integrative Medical Sciences, RIKEN, <sup>2</sup>Division of Pulmonary Medicine, Department of Medicine, Keio University School of Medicine, <sup>3</sup>Laboratory for Cellular Epigenomics, Center for Integrative Medical Sciences, RIKEN, <sup>4</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>5</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC)

WS20-13-O/P

### **Cnot3 differentially regulates development and function of innate lymphoid cells**

○ Megumi Tatematsu<sup>1</sup>, Akane Fuchimukai<sup>1</sup>, Shunsuke Takasuga<sup>1</sup>, Toshiki Yamada<sup>1</sup>, Kenji Ishiwata<sup>2</sup>, Ichiro Taniuchi<sup>3</sup>, Shinichiro Sawa<sup>4</sup>, Keiji Kuba<sup>5</sup>, Takashi Ebihara<sup>1</sup>

<sup>1</sup>Department of Medical Biology, Akita University Graduate School of Medicine, <sup>2</sup>Department of Tropical Medicine, The Jikei University School of Medicine, <sup>3</sup>Laboratory for Transcriptional Regulation, RIKEN Center for Integrative Medical Sciences, <sup>4</sup>Division of Mucosal Immunology, Research Center for Systems Immunology, Kyushu University, <sup>5</sup>Department of Pharmacology, Kyushu University Graduate School of Medical Sciences

## WS21 B cell (1)-from birth to death

WS21-01-O/P

### A multimorphic mutation in IRF4 causes human autosomal dominant combined immunodeficiency

○ Zhijia Yu<sup>1</sup>, Oriol Fornes<sup>2</sup>, Alicia Jia<sup>2</sup>, Hye Sun Kuehn<sup>3</sup>, Qing Min<sup>4</sup>, Ulrich Pannicke<sup>5</sup>, Nikolai Schleussner<sup>6</sup>, Romane Thouenon<sup>7</sup>

<sup>1</sup>The Australian National University, <sup>2</sup>University of British Columbia, <sup>3</sup>NIH, <sup>4</sup>Fudan University, <sup>5</sup>University of Ulm, <sup>6</sup>MDC/ECRC, <sup>7</sup>Universite Paris Cite

WS21-02-O/P

### The origin of natural IgM-producing cells assessed by the RAG2-based cell fate tracking system

○ Keiko Fujisaki<sup>1</sup>, Shogo Okazaki<sup>2</sup>, Ryo Goitsuka<sup>1</sup>

<sup>1</sup>Division of Cell Fate Regulation, Research Institute for Biomedical Sciences, Tokyo University of Science, <sup>2</sup>Department of Microbiology, Nihon University School of Dentistry

WS21-03-P

### Recognition landscape of inborn B cells derived antibodies to microbiota in early life

○ Qisheng Gu<sup>1,2</sup>, Marion Draheim<sup>1</sup>, Zihan He<sup>1</sup>, Cyril Planchais<sup>3</sup>, Fan Mu<sup>1</sup>, Shijie Gong<sup>1</sup>, Hugo Mouquet<sup>3</sup>, Richard Lo-Man<sup>1,2</sup>

<sup>1</sup>Unit of Immunity and Pediatric Infectious Diseases, Shanghai Institute of Immunity and Infection, Chinese Academy of Sciences, Shanghai, China, <sup>2</sup>Department of Immunology, BioSPC, Université Paris Cité, Paris, France, <sup>3</sup>Laboratory of Humoral Immunology, Institut Pasteur, INSERM, Paris, France

WS21-04-O/P

### Ago2 and a miRNA reduce DNA topoisomerase 1 (Top1) for enhancing DNA cleavage in antibody diversification by activation-induced cytidine deaminase (AID)

○ Maki Kobayashi<sup>1</sup>, Hiroyuki Wakaguri<sup>2</sup>, Masakazu Shimizu<sup>2</sup>, Koichiro Higasa<sup>2</sup>, Fumihiko Matsuda<sup>2</sup>, Tasuku Honjo<sup>1</sup>

<sup>1</sup>Immunology and Genomic Medicine, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine, <sup>2</sup>Center for Genomic Medicine, Kyoto University Graduate School of Medicine

WS21-05-P

### Influences of pre-B cell receptor deficiency on repertoires of naive immunoglobulin heavy and light chains and of antigen-responding heavy chains in peripheral blood B cells

○ Takeyuki Shimizu<sup>1</sup>, Lin Sun<sup>2</sup>, Kazuo Ohnishi<sup>2</sup>

<sup>1</sup>Department of Immunology, Kochi Medical School, Kochi University, <sup>2</sup>Department of Immunology, National Institute of Infectious Diseases

WS21-06-O/P

### Nucleolar protein NOP16 regulates AID induction and dictates the directionality of B-cell class switch recombination

○ Yohana Silas Mtali, Ken Takashima, Hiroyuki Oshiumi

Department of Immunology, Graduate School of Medical Sciences, Kumamoto University

WS21-07-P

### CXCR4 promotes B cell viability by the cooperation of nuclear factor (erythroid-derived 2)-like 2 and hypoxia-inducible factor-1 $\alpha$ under hypoxic conditions

○ Eun Yi Moon

Sejong University

WS21-08-P

### Explication of immune profile focusing on BAFF in B lymphomas

○ Nami Tagami, Yasuyuki Goto

Laboratory of Molecular Immunology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan

WS21-09-O/P

### Immunoglobulin A deficiency causes immunological and neurological disorders

○ Takahiro Adachi<sup>1</sup>, Kiminori Nakamura<sup>2</sup>, Mayuko Hashimoto<sup>3</sup>, Yutaka Kusumoto<sup>3</sup>, Michio Tomura<sup>3</sup>

<sup>1</sup>Dept. Precision Health, MRI, TMDU, <sup>2</sup>Depart. Cell Biological Science, ALS, Hokkaido Univ. Graduate School of Life Science, <sup>3</sup>Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani Univ.

WS21-10-P

### Interleukin 21 commits IgG1<sup>+</sup> cells not to undergo class switch to IgE but to differentiate into plasmablasts

○ Masaaki Hashiguchi, Yoshiko Iwai

Dept. Cell Biology, Inst. Advanced Medical Sciences, Nippon Medical School

WS21-11-O/P

### **Cytokine-induced IgE production from B1 cells exacerbates allergic inflammation**

○ Yasutaka Motomura<sup>1,2,4</sup>, Yohei Maeda<sup>3</sup>, Masaki Hayama<sup>3</sup>, Kazuyo Moro<sup>1,2,4</sup>

<sup>1</sup>Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University,

<sup>2</sup>Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (IFReC), <sup>3</sup>Department of Otorhinolaryngology-Head and Neck surgery, Graduate School of Medicine, Osaka University, Osaka, Japan, <sup>4</sup>Laboratory for Innate Immune Systems, RIKEN IMS

WS21-12-P

### **Nerve growth factor is involved in the regulation of IgE class switch recombination in human B cells**

○ Kano Tanabe, Yukinori Kozuma

Kumamoto health science university

WS21-13-O/P

### **Chronic BCR signaling shapes the generation and maintenance of age-associated B cells from anergic B cells**

○ Keisuke Imabayashi<sup>1</sup>, Hiroaki Niiro<sup>2</sup>, Yoshihiro Baba<sup>1</sup>

<sup>1</sup>Division of Immunology and Genome Biology, Medical Institute of Bioregulation, Kyushu University, <sup>2</sup>Department of Medical Education, Faculty of Medical Sciences, Kyushu University Graduate School of Medical Sciences

WS21-14-P

### **Reversal of brain dysfunction through control of senescent cells**

○ Ayame Nagafuchi<sup>1</sup>, Ako Matsui<sup>1</sup>, Mana Iizuka<sup>2</sup>, Akihiko Yoshimura<sup>2</sup>, Minako Ito<sup>1</sup>

<sup>1</sup>Division of Allergy and Immunology, Medical Institute of Bioregulation, Kyushu University, <sup>2</sup>Department of Microbiology and Immunology, Keio University School of Medicine

WS21-15-P

### **Actin cytoskeleton remodeling is promoted in age-associated B cells**

○ Ryohei Kondo<sup>1</sup>, Mitsuhiro Fujiwara<sup>1,2</sup>, Akihiko Nishikimi<sup>1</sup>

<sup>1</sup>Biosafety Administration Division, Research Institute, National Center for Geriatrics and Gerontology, <sup>2</sup>Department of Physical Therapy, School of Health Sciences, Toyohashi SOZO University

## January 19

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### **WS22 Tumor immunity-3; Analysis of tumor immunity**

WS22-01-O/P

#### **Identification of candidate target genes for maintaining TCF1<sup>high</sup> CD8<sup>+</sup> T cells under high IL-2 conditions**

○ Satsuki Okafuji<sup>1</sup>, Soyoko Morimoto<sup>2</sup>, Fumihiro Fujiki<sup>3</sup>, Akinori Nagata<sup>1</sup>, Jun Nakata<sup>1</sup>, Hiroko Nakajima<sup>4</sup>, Sumiyuki Nishida<sup>5,6</sup>, Yoshihiro Oka<sup>2</sup>, Yusuke Oji<sup>1</sup>, Haruo Sugiyama<sup>4</sup>

<sup>1</sup>Department of Clinical Laboratory and Biomedical Sciences, Osaka University Graduate School of Medicine, <sup>2</sup>Department of Cancer Stem Cell Biology, Osaka University Graduate School of Medicine, <sup>3</sup>Department of Cancer Immunotherapy, Osaka University Graduate School of Medicine, <sup>4</sup>Department of Cancer Immunology, Osaka University Graduate School of Medicine, <sup>5</sup>Strategic Global Partnership & X(Cross)-Innovation Initiative Graduate School of Medicine, Osaka University and Osaka University Hospital, <sup>6</sup>Department of Respiratory Medicine and Clinical Immunology Graduate School of Medicine, Osaka University

WS22-02-O/P

#### **Transcription factor Bach2 controls anti-tumor immunity via regulation of CD8 T cell innate immune function**

○ Yuko Matsuoka<sup>1</sup>, Junpei Suzuki<sup>2</sup>, Makoto Kuwahara<sup>2</sup>, Masakatsu Yamashita<sup>1,2</sup>

<sup>1</sup>Translational Research Center, Ehime University Hospital, Ehime University, <sup>2</sup>Department of Immunology, Graduate School of Medicine, Ehime University

WS22-03-O/P

#### **Characteristics of tumor antigen-reactive CD8<sup>+</sup> T cell population in tumor-infiltrating lymphocytes from gastric cancer**

○ Nobuo Tsukamoto<sup>1</sup>, Takafumi Okayama<sup>1,2</sup>, Toshihiro Suzuki<sup>1</sup>, Takahiro Kinoshita<sup>2</sup>, Tetsuya Nakatsura<sup>1</sup>

<sup>1</sup>Division of Cancer Immunotherapy, Exploratory Oncology Research & Clinical Trial Center, National Cancer Center, <sup>2</sup>Gastric Surgery Division, National Cancer Center Hospital East

WS22-04-O/P

#### **Fatty acid oxidation in CD8<sup>+</sup> T cells prevents terminally exhaustion and increases anti-tumor immunity**

○ Koji Kitaoka<sup>1</sup>, Yasuharu Haku<sup>1</sup>, Tomonori Yaguchi<sup>1,2</sup>, Tasuku Honjo<sup>1</sup>, Kenji Chamoto<sup>1,2</sup>

<sup>1</sup>Center for Cancer Immunotherapy and Immunobiology(CCII), Graduate School of Medicine, Kyoto University, <sup>2</sup>Department of Immunology-Oncology PDT, Graduate School of Medicine Kyoto University

WS22-05-O/P

### Addressing Tumor Heterogeneity by Sensitizing Resistant Cancer Cells to T cell-secreted Cytokines

○ Yoshinaga Ito<sup>1,2,3</sup>, Deng Pan<sup>2,3</sup>, Wubing Zhang<sup>4</sup>, Xixi Zhang<sup>2,3</sup>, Tiffany Juan<sup>2</sup>, Jason Pyrdol<sup>2</sup>, Oleksandr Kyrysyuk<sup>2</sup>, John Doench<sup>5</sup>, X. Shirley Liu<sup>4</sup>, Kai W. Wucherpfennig<sup>2,3</sup>

<sup>1</sup>Kyoto University, Institute for Life and Medical Sciences, <sup>2</sup>Department of Cancer Immunology and Virology, Dana-Farber Cancer Institute, <sup>3</sup>Department of Immunology, Harvard Medical School, <sup>4</sup>Department of Data Sciences, Dana-Farber Cancer Institute, <sup>5</sup>Genetic Perturbation Platform, Broad Institute of MIT and Harvard

WS22-06-O/P

### MAIT cells have a negative impact on glioblastoma

○ Masaki Terabe<sup>1</sup>, Tajjun Hana<sup>1</sup>, Seke Keretsu<sup>1</sup>, Nargis Malik<sup>1</sup>, Hye Kim<sup>1</sup>, Alexander Lee<sup>2</sup>, Matthew Watowich<sup>1</sup>, Masashi Watanabe<sup>1</sup>, Robert Prins<sup>2</sup>, Mark Gilbert<sup>1</sup>

<sup>1</sup>National Cancer Institute, NIH, <sup>2</sup>UCLA

WS22-07-O/P

### Analysis of intertumoral and intratumoral heterogeneity based on molecular subtypes in clear cell renal cell carcinoma reveals immune suppressive phenotype of the angiogenesis-related immune signatures

○ Katsuhiko Ito<sup>1,2</sup>, Tomonori Yaguchi<sup>1</sup>, Kenji Chamoto<sup>1</sup>, Takayuki Sumiyoshi<sup>2</sup>, Yuki Kita<sup>2</sup>, Takashi Kobayashi<sup>2</sup>, Tasuku Honjo<sup>1</sup>

<sup>1</sup>Kyoto University Graduate School of Medicine Department of Immunology and Genomic Medicine, <sup>2</sup>Kyoto University Graduate School of Medicine Department of Urology

WS22-08-P

### Targeted demethylation and activation of *NLR5* augment cancer immunogenicity through MHC class I

○ Xin Sun<sup>1</sup>, Toshiyuki Watanabe<sup>1</sup>, Yoshitaka Oda<sup>2</sup>, Weidong Shen<sup>3</sup>, Ryota Ouda<sup>1</sup>, Paul de Figueiredo<sup>4,5</sup>, Hidemitsu Kitamura<sup>3,6</sup>, Shinya Tanaka<sup>2,7</sup>, Koichi S. Kobayashi<sup>1,4,8</sup>

<sup>1</sup>Department of Immunology, Graduate School of Medicine, Hokkaido University; Sapporo 060-8638, Japan, <sup>2</sup>Department of Cancer Pathology, Graduate School of Medicine, Hokkaido University; Hokkaido, Sapporo 060-8638, Japan, <sup>3</sup>Division of Functional Immunology, Section of Disease Control, Institute for Genetic Medicine, Hokkaido University; Sapporo 060-8638, Japan, <sup>4</sup>Department of Microbial Pathogenesis and Immunology, Texas A&M Health Science Center; Bryan 77807, TX, USA, <sup>5</sup>Department of Veterinary Pathobiology, Texas A&M University; College Station 77845, TX, USA, <sup>6</sup>Department of Biomedical Engineering, Faculty of Science and Engineering, Toyo University; Kawagoe, Japan, <sup>7</sup>Institute for Chemical Reaction Design and Discovery (WPI-ICReDD), Hokkaido University; Sapporo 001-0021, Japan, <sup>8</sup>Hokkaido University, Institute for Vaccine Research and Development (HU-IVReD); Sapporo 060-8638, Japan

WS22-09-P

### The role of HDACs in the negative regulation of MHC class I gene expression

○ Alaa Ahmad<sup>1</sup>, An Ning<sup>1</sup>, Ryota Ouda<sup>1</sup>, Xin Sun<sup>1</sup>, Tsutomu Tanaka<sup>1</sup>, Koichi S Kobayashi<sup>1,2,3</sup>

<sup>1</sup>Department of Immunology, Hokkaido University Graduate School of Medicine, <sup>2</sup>Department of Microbial Pathogenesis and Immunology, <sup>3</sup>Hokkaido University Institute for Vaccine Research and Development

WS22-10-P

### A novel proteogenomic approach for HLA class I and II neoantigen identification

○ Serina Tokita<sup>1,2</sup>, Takayuki Kanaseki<sup>1,2</sup>, Toshihiko Torigoe<sup>1,2</sup>

<sup>1</sup>Department of Pathology, Sapporo Medical University, <sup>2</sup>Joint Research Center for Immunoproteogenomics, Sapporo Medical University

WS22-11-P

### Regulatory T cells suppress cross-presentation by vascular endothelial cells

○ Toshihiro Komatsu<sup>1</sup>, Takeyuki Shimizu<sup>1</sup>, Yoshiaki Kubota<sup>2</sup>, Keiko Udaka<sup>1</sup>

<sup>1</sup>Department of Immunology, School of Medicine, Kochi University, <sup>2</sup>Department of Anatomy, School of Medicine, Keio University.

WS22-12-P

### Regulation of tumor immune responses by dead cell-derived molecules

○ Hideyuki Yanai

RCAST, The University of Tokyo

WS22-13-P

### A critical molecule in licensing immunosuppression in the tumor microenvironment

○ Qiao Gou, Hiroyuki Takaba, Hiroshi Takayanagi

Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo

WS22-14-P

### The multiple myeloma microenvironment triggers inflammasome activation in tolerogenic dendritic cells to promote disease progression

○ Mariko Ishibashi<sup>1</sup>, Mika Sunakawa<sup>1,2</sup>, Rimpei Morita<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Nippon Medical School, <sup>2</sup>Department of Hematology, Nippon Medical School

WS22-15-P

### SPRED2 promotes autophagy via mTORC1 signaling pathway in hepatocellular carcinoma

○ Tianyi Wang, Tong Gao, Toshiaki Ohara, Masayoshi Fujisawa, Teizo Yoshimura, Akihiro Matsukawa

Okayama University, Graduate school of medicine, Dentistry and pharmaceutical sciences, Department of Pathology and Experimental Medicine

WS22-16-P

**“Persister” B16 melanoma cells that survive cytotoxic agents stimulate host immune responses but evade immunologic elimination**

○ Yukiie Ando, Sara Hatazawa, Momo Mataka, Akihiro Nakamura, Yutaka Horiuchi, Takashi Murakami  
Department of Microbiology, Faculty of Medicine, Saitama medical university

WS22-17-P

**Memory-Phenotype CD4<sup>+</sup> T Lymphocytes Can Contribute to Tumor Control without Inducing Graft-versus-Host Disease**

○ Ziyang Yang, Jing Li, Hideaki Watanabe, Keita Koinuma, Akihisa Kawajiri, Kosuke Sato, Shunichi Tayama, Yuko Okuyama, Naoto Ishii, Takeshi Kawabe  
Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine

WS22-18-P

**A novel genetic method for labeling and depletion of tumor specific macrophages**

○ Ayumi Kuratani<sup>1)</sup>, Masaaki Okamoto<sup>1)</sup>, Masahiro Yamamoto<sup>1,2,3)</sup>  
<sup>1)</sup>Department of Immunoparasitology, RIMD, Osaka University, <sup>2)</sup>Laboratory of Immunoparasitology, IFRc, Osaka University, <sup>3)</sup>CIDER, Osaka University

WS22-19-P

**Initial myeloid cell status is associated with clinical outcomes of renal cell carcinoma**

○ Yuji Takeda<sup>1)</sup>, Saima Sabrina<sup>1)</sup>, Tomoyuki Kato<sup>2)</sup>, Shinichi Saitoh<sup>1)</sup>, Akemi Araki<sup>1)</sup>, Mikako Nagashima<sup>1)</sup>, Hidetoshi Nara<sup>3)</sup>, Hironobu Asao<sup>1)</sup>  
<sup>1)</sup>Department of Immunology, Yamagata University Faculty of Medicine, <sup>2)</sup>Department of Urology, Yamagata University Faculty of Medicine, <sup>3)</sup>Department of Biological Sciences, Faculty of Science and Engineering, Ishinomaki Senshu University

WS22-20-P

**Gut microbiota supports host anti-tumor immunity in the kidney via CX<sub>3</sub>CL1**

○ Hirotaka Kawanabe-Matsuda<sup>1,2,3)</sup>, Marie Nakamura<sup>3)</sup>, Koji Hase<sup>2)</sup>, Yun-Gi Kim<sup>1)</sup>  
<sup>1)</sup>Research Center for Drug Discovery, Faculty of Pharmacy, Keio University, Tokyo, Japan, <sup>2)</sup>Division of Biochemistry, Faculty of Pharmacy, Keio University, Tokyo, Japan, <sup>3)</sup>Wellness Science Labs, Meiji Holdings Co., Ltd., Tokyo, Japan

WS22-21-P

**Stromal defense against cancer bone invasion by the periosteum**

○ Masayuki Tsukasaka<sup>1)</sup>, Kazutaka Nakamura<sup>2,3)</sup>, Hiroshi Takayanagi<sup>2)</sup>  
<sup>1)</sup>Department of Osteoimmunology Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, <sup>2)</sup>Department of Immunology Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, <sup>3)</sup>Department of Oral and Maxillofacial Surgery, Department of Sensory and Motor System Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

WS22-22-P

**Analysis of circulating ITGB1<sup>+</sup> monocytes in pancreatic cancer**

○ Sadahiro Iwabuchi<sup>1)</sup>, Hideki Motobayashi<sup>2)</sup>, Yuji Kitahata<sup>2)</sup>, Ken-ichi Okada<sup>2)</sup>, Masaki Ueno<sup>2)</sup>, Shinya Hayami<sup>2)</sup>, Tadashi Imafuku<sup>1)</sup>, Atsushi Miyamoto<sup>2)</sup>, Manabu Kawai<sup>2)</sup>, Shinichi Hashimoto<sup>1)</sup>  
<sup>1)</sup>Department of Molecular Pathophysiology, Wakayama Medical University, <sup>2)</sup>Second Department of Surgery, Wakayama Medical University

WS22-23-P

**The molecular mechanism of “Cancer cell cannibalism” and its significance in cancer progression**

○ Takaaki Tsunematsu, Ruka Nagao, Shigefumi Matsuzawa, Kunihiro Otsuka, Aya Ushio, Naozumi Ishimaru  
Department of Oral Molecular Pathology, Tokushima University Graduate School of Biomedical Sciences

WS22-24-P

**Tumor-associated macrophages as a key player in type 2 endometrial cancer progression**

○ Yuko Arino<sup>1)</sup>, Tatsuma Ban<sup>2)</sup>, Juri Ichikawa<sup>2)</sup>, Hiroshi Okuda<sup>2)</sup>, Shigeyuki Kon<sup>3)</sup>, Tomohiko Tamura<sup>2)</sup>  
<sup>1)</sup>Department of Obstetrics & Gynecology / Immunology, Yokohama City University Graduate School of Medicine, <sup>2)</sup>Department of Immunology, Yokohama City University Graduate School of Medicine, <sup>3)</sup>Faculty of Pharmaceutical Sciences, Fukuyama University

WS22-25-P

**Elucidating The Roles Of Immune Cells Arising From Clonal Hematopoiesis In Colon Cancer Metastasis**

○ Ai Nhan Le Thi<sup>1)</sup>, Tran Bich Nguyen<sup>2)</sup>, YuanJiao Duan<sup>1)</sup>, Yen Thi Minh Nguyen<sup>3)</sup>, Mizuho Nakayama<sup>4)</sup>, Masanobu Oshima<sup>4)</sup>, Yuya Sasaki<sup>2,3)</sup>, Tatsuhiro Sakamoto<sup>2,3)</sup>, Manabu Fujisawa<sup>2)</sup>, Shigeru Chiba<sup>2,3)</sup>, Mamiko Sakata-Yanagimoto<sup>2,3)</sup>  
<sup>1)</sup>Department of Hematology, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Ibaraki, Japan, <sup>2)</sup>Department of Hematology, Faculty of Medicine, University of Tsukuba, Ibaraki, Japan, <sup>3)</sup>Department of Hematology, University of Tsukuba Hospital, Ibaraki, Japan, <sup>4)</sup>Division of Genetics, Cancer Research Institute, Kanazawa University, Kanazawa, Japan

WS22-26-P

**Tumor-Associated Macrophages Enhance Tumor Growth via Cholesterol Metabolism in Liver Cancer Cells and Monocytes Coculture Spheroids**

○ Pornlapat Keawvilai, Patipark Kueanjinda, Jeerameth Klomsing, Tanapat Palaga  
Chulalongkorn University

WS22-27-P

### Lymph node stromal cell-derived CXCL12 modulates tumor immune responses

○ Yasuhiro Kanda<sup>1</sup>, Madoka Ozawa<sup>1</sup>, Takashi Nagasawa<sup>2</sup>, Tomoya Katakai<sup>1</sup>

<sup>1</sup>Department of Immunology, Niigata University Graduate School of Medical and Dental Sciences, <sup>2</sup>Laboratory of Stem Cell Biology and Developmental Immunology, Graduate School of Frontier Biosciences, Osaka University

## January 19

### WS23 Organ specific autoimmunity

WS23-01-O/P

#### CLEC16A-driven mitophagy limits astrocyte proinflammatory activities

○ Atsushi Kadowaki<sup>1,2</sup>, Michael Wheeler<sup>1,3</sup>, Zhaolong Li<sup>1</sup>, Alain Ndayisaba<sup>1</sup>, Stephanie Zandee<sup>5</sup>, Himanish Basu<sup>4</sup>, Chun-Chei Chao<sup>1</sup>, Scott Soleinmanpour<sup>6</sup>, Isaac Chiu<sup>4</sup>, Alexandre Prat<sup>5</sup>, Vikram Khurana<sup>1,7</sup>, Francisco Quintana<sup>1,3</sup>

<sup>1</sup>Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital, Harvard Medical School, <sup>2</sup>Department of Neurology, Osaka University, <sup>3</sup>Broad Institute of MIT and Harvard, Cambridge, <sup>4</sup>Department of Immunology, Harvard Medical School, <sup>5</sup>Neuroimmunology Research Lab, CRCHUM and Department of Neuroscience, Faculty of Medicine, Université de Montréal, <sup>6</sup>Division of Metabolism, Endocrinology and Diabetes and Department of Internal Medicine, University of Michigan Medical School, <sup>7</sup>Harvard Stem Cell Institute

WS23-02-P

#### T cell-specific deletion of TRAIL receptor reveals its critical role for regulating pathologic T cell activation and disease induction in experimental autoimmune encephalomyelitis

○ I-Tsu Chyuan<sup>1,2</sup>, Ping-Ning Hsu<sup>3,4</sup>

<sup>1</sup>School of Medicine, College of Life Science and Medicine, National Tsing Hua University, <sup>2</sup>Department of Internal Medicine, Cathay General Hospital, <sup>3</sup>Department of Internal Medicine, College of Medicine, National Taiwan University, <sup>4</sup>Department of Internal Medicine, National Taiwan University Hospital

WS23-03-O/P

#### Ketogenic diet regulates central nervous inflammation via changes in small intestinal gut microbiota

○ Katsuki Yaguchi<sup>1,2</sup>, Tadashi Takeuchi<sup>1,3</sup>, Eiji Miyauchi<sup>1,4</sup>, Masami Kawasumi<sup>1</sup>, Yumiko Nakanishi<sup>1</sup>, Tamotsu Kato<sup>1</sup>, Jigen Sekine<sup>1</sup>, Shin Maeda<sup>2</sup>, Hiroshi Ohno<sup>1,5</sup>

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WS23-04-P

#### Effects of component derived from *Mycobacterium bovis* bacillus Calmette-Guerin (BCG) on induction and suppression of experimental autoimmune encephalomyelitis (EAE) in mouse

○ Hideyasu Killian Kiyohara  
JAPAN BCG LABORATORY

WS23-05-O/P

#### Mitochondrial cysteinyl-tRNA synthetase (CARS2) -dependent sulfur metabolism exacerbates a mouse model of multiple sclerosis through antigen presentation

○ Hibiki Suzuki<sup>1</sup>, Kyoga Hiraide<sup>1</sup>, Yuya Kitamura<sup>1</sup>, Shunichi Tayama<sup>1</sup>, Kosuke Sato<sup>1</sup>, Keita Koinuma<sup>1</sup>, Yuko Okuyama<sup>1</sup>, Takeshi Kawabe<sup>1</sup>, Takaaki Akaike<sup>2</sup>, Naoto Ishii<sup>1</sup>

<sup>1</sup>Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, <sup>2</sup>Department of Environmental Health Sciences and Molecular Toxicology, Tohoku University Graduate School of Medicine

WS23-06-P

#### Role of thrombin cleavage of nephronectin in the development of experimental autoimmune encephalitis

○ Shigeyuki Kon, Machiko Honda  
Department of Molecular Immunology, Faculty of Pharmaceutical Sciences, Fukuyama University

WS23-07-O/P

#### Self-reactive Th cells express Neuropilin-1 (NRP1) following activation in autoimmune disease

○ Ben JE Raveney<sup>1,2</sup>, Atsuko Kimura<sup>1</sup>, Youwei Lin<sup>3</sup>, Tomoko Okamoto<sup>3</sup>, Atsuko Katsumoto<sup>3</sup>, Reiko Saika<sup>3</sup>, Shohei Hori<sup>4</sup>, Wakiro Sato<sup>1,3</sup>, Shinji Oki<sup>1</sup>, Takashi Yamamura<sup>1,3</sup>

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WS23-08-O/P

### **GM-CSF promotes long-term survival of myeloid cells of peripheral origin in the central nervous system for pain-induced relapse of neuroinflammation**

○ Shintaro Hojyo<sup>1,3,7</sup>, Shiina Matsuyama<sup>1</sup>, Reiji Yamamoto<sup>1,2</sup>, Kaoru Murakami<sup>1,3</sup>, Junko Nio-Kobayashi<sup>4</sup>, Tadafumi Kawamoto<sup>5</sup>, Takeshi Yamasaki<sup>6,1</sup>, Rie Hasebe<sup>1,6</sup>, Daisuke Kamimura<sup>1</sup>, Shigeru Hashimoto<sup>1</sup>, Yuki Tanaka<sup>1,3</sup>, Masaaki Murakami<sup>1,3,6,7</sup>

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WS23-09-O/P

### **Protective Effects of Inulin on Stress-Recurrent Inflammatory Bowel Disease**

○ Kanami Orihara, Yao Du, Kanta Kusama, Xinyue Chen, Susumu Kajiwara  
Tokyo Institute of Technology, School of Life Science and Engineering

WS23-10-P

### **Role of niche-specific Foxp3<sup>+</sup> cell and lymph extracellular vesicles in the pathogenesis of Ulcerative Colitis**

○ Hisashi Ueta<sup>1</sup>, Toshiya Tanaka<sup>2</sup>, Hidefumi Kojima<sup>1</sup>, Keiichi Tominaga<sup>1</sup>, Yusuke Kitazawa<sup>1</sup>, Yasushi Sawanobori<sup>1</sup>, Mina Shirabe<sup>1</sup>, Atsushi Irisawa<sup>1</sup>, Nobuko Tokuda<sup>1</sup>

<sup>1</sup>Dokkyo Medical University, <sup>2</sup>The University of Tokyo

WS23-11-P

### **A novel inflammatory bowel disease model, c-MIR Tg mice, demonstrates a naturally occurring ulcerative colitis-like disease exacerbated by lymphopenia-induced proliferation of CD4<sup>+</sup> T cells**

○ Hideki Ogura, Satoshi Ishido  
Department of Microbiology, School of Medicine, Hyogo Medical University

WS23-12-O/P

### **Treg-mediated inhibition of protein translation in effector T cells is critical in maintaining peripheral tolerance in humans and mice**

○ Kazushige Obata-Ninomiya<sup>1</sup>, Lomon So<sup>1,2</sup>, Jing Song<sup>1</sup>, Jane H Buckner<sup>1</sup>, Ram Savan<sup>1</sup>, Steven F Ziegler<sup>1</sup>

<sup>1</sup>Benaroya Research Institute at Virginia Mason, <sup>2</sup>University of Washington

WS23-13-P

### **Clinical evaluation of Graves' disease using TSH receptor autoantibody (TRAb)-isotype and TRAb-IgM/TRAb-IgG (the MG ratio)**

○ Keiko Nagata, Takeshi Imamura  
Division of Pharmacology, Faculty of Medicine, Tottori University

WS23-14-P

### **Elimination mechanism of B16 melanoma cells in autoimmune prone mice**

○ Yuriko Tanaka<sup>1</sup>, Marii Ise<sup>1</sup>, Taku Naito<sup>1</sup>, Taku Kuwabara<sup>1</sup>, Shuhei Mashimo<sup>1,2</sup>, Akiko Inoue<sup>1,3</sup>, Motonari Kondo<sup>1</sup>

<sup>1</sup>Department of Molecular Immunology Toho University School of Medicine, <sup>2</sup>Department of Dermatology, Toho University School of Medicine, <sup>3</sup>Department of Otolaryngology, Toho University School of Medicine

WS23-15-P

### **The effect of histone JmjC-containing domain (JmjD) demethylase in Graves' ophthalmopathy orbital fibroblasts activation**

○ Natcha Yakkaphan<sup>1</sup>, Tanapat Palaga<sup>2</sup>, Preamjit Saonanon<sup>3</sup>, Vannakorn Pruksakorn<sup>3</sup>, P. Martin van Hagen<sup>4,5,6</sup>, Willem A. Dik<sup>5</sup>, Sita Virakul<sup>2</sup>

<sup>1</sup>Medical Microbiology, Interdisciplinary Program, Graduate School, Chulalongkorn University, Bangkok, Thailand, <sup>2</sup>Department of Microbiology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand, <sup>3</sup>Department of Ophthalmology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, <sup>4</sup>Center of Excellence in Immunology and Immune mediated Disease, Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, <sup>5</sup>Laboratory Medical Immunology, department of Immunology, Erasmus MC, University Medical Center, Rotterdam, The Netherlands, <sup>6</sup>Department of Internal Medicine, Division of Clinical Immunology, and Immunology, Erasmus MC, University Medical Center, Rotterdam, The Netherlands



WS23-16-P

### **LSD1 regulates hyaluronan production in Graves' ophthalmopathy orbital fibroblasts**

Natcha Yakkaphan<sup>1</sup>, Tanapat Palaga<sup>2</sup>, Preamjit Saonanon<sup>3</sup>, Vannakorn Pruksakorn<sup>3</sup>, P. Martin van Hagen<sup>4,5,6</sup>, Willem A. Dik<sup>3</sup>, ○ Sita Viraku<sup>2</sup>

<sup>1</sup>Medical Microbiology, Interdisciplinary Program, Graduate School, Chulalongkorn University, Bangkok, Thailand, <sup>2</sup>Department of Microbiology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand, <sup>3</sup>Department of Ophthalmology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, <sup>4</sup>Center of Excellence in Immunology and Immune mediated Disease, Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, <sup>5</sup>Laboratory Medical Immunology, department of Immunology, Erasmus MC, University Medical Center, Rotterdam, The Netherlands, <sup>6</sup>Department of Internal Medicine, Division of Clinical Immunology, and Immunology, Erasmus MC, University Medical Center, Rotterdam, The Netherlands

WS23-17-P

### **Generation of autoreactive bone marrow plasma cells**

○ Wataru Okada, Yuka Takuma, Sano Nagano, Harumi Sasaki, Miya Yoshino, Koji Tokoyoda  
Division of Immunology, Graduate School of Medicine, Tottori University

WS23-18-O/P

### **Oral bacteria trigger the production of IgA autoantibodies in IgA nephropathy model mice**

○ Mizuki Higashiyama<sup>1</sup>, Kei Haniuda<sup>2,1</sup>, Yoshihito Nihei<sup>3,1</sup>, Daisuke Kitamura<sup>1</sup>

<sup>1</sup>Tokyo University of Science, Research Institute for Biomedical Sciences(RIBS), <sup>2</sup>Department of Immunology, University of Toronto, Toronto, Canada, <sup>3</sup>Department of Nephrology, Juntendo University Faculty of Medicine, Tokyo, Japan

WS23-19-P

### **Deciphering the characteristics of T regulatory cell subsets in pemphigus**

○ Farzan Solimani  
Charité - Universitätsmedizin Berlin

WS23-20-P

### **Computer model of foam cell formation in atherosclerosis**

○ Satoshi Yamada<sup>1</sup>, Akihiko Yoshimura<sup>2</sup>, Masaaki Murakami<sup>3,4</sup>

<sup>1</sup>Department of Information Science and Engineering, Okayama University of Science, <sup>2</sup>School of Medicine, Keio University, <sup>3</sup>Institute for Genetic Medicine, Hokkaido University, <sup>4</sup>Institute for quantum life science, National institutes for quantum and radiological science and technology

WS23-21-P

### **Single cell-RNA sequencing analysis of retinal cells in streptozotocin-induced diabetic mice developing experimental autoimmune uveoretinitis**

○ Yoshiaki Nishio<sup>1</sup>, Koza Harimoto<sup>1</sup>, Tomohito Sato<sup>1</sup>, Masataka Ito<sup>2</sup>, Masaru Takeuchi<sup>1</sup>

<sup>1</sup>Department of Ophthalmology, National Defense Medical College, <sup>2</sup>Department of Developmental Anatomy, National Defense Medical College

## January 19

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### **WS24 T cell development and function**

WS24-01-O/P

#### **Cytidine deaminase-based assembly of anticipatory antigen receptors in lamprey alternative adaptive immune system**

○ Ryo Morimoto  
Max Planck Institute of Immunobiology and Epigenetics

WS24-02-P

#### **Notch-dependent functional conversion of RUNX transcription factors regulates the initiation of T-lineage program**

○ Yuichi Kama, Katsuto Hozumi, Hiroyuki Hosokawa  
Department of Immunology, Tokai University School of Medicine

WS24-03-O/P

#### **Single-cell Multiome analysis unravels the lineage choice of T-cell versus innate lymphoid cells mediated by E2A-Id2-Notch1 axis**

○ Masaki Miyazaki<sup>1</sup>, Kazuko Miyazaki<sup>1</sup>, Kenta Horie<sup>2,3</sup>, Taishin Akiyama<sup>2</sup>, Katsuto Hozumi<sup>4</sup>, Hiroshi Kawamoto<sup>1</sup>

<sup>1</sup>Kyoto University, <sup>2</sup>RIKEN center for integrative medical sciences, <sup>3</sup>Chiba University, <sup>4</sup>Tokai University School of Medicine

WS24-04-P

#### **Etv6 is a Tcf7- and Hes1-independent Notch target gene in the initiation of the T-lineage program**

○ Ken-ichi Hirano, Katsuto Hozumi, Hiroyuki Hosokawa  
Department of Immunology, Tokai University School of Medicine

WS24-05-P

### **Notch-E2A-Id2 axis orchestrates a developmental shift of T cell versus innate lymphoid cell lineage during the thymic ontogeny**

○ Rinako Hayashi<sup>1,2</sup>, Masaki Miyazaki<sup>2</sup>, Kazuko Miyazaki<sup>2</sup>, Kenta Horie<sup>3,4</sup>, Taishin Akiyama<sup>4</sup>, Katsuko Hozumi<sup>5</sup>, Hiroshi Kawamoto<sup>2</sup>

<sup>1</sup>Kyoto University, school of Medicine, <sup>2</sup>Kyoto University, Institute for Life and Medical Sciences, <sup>3</sup>Chiba University, <sup>4</sup>RIKEN center for integrative medicine, <sup>5</sup>Tokai University School of Medicine

WS24-06-P

### **The Role of BRD4 in Thymic Differentiation and Function**

○ Dinah S. Singer, Jie Mu, Mami Matsuda-Lennikov, Yousuke Takahama

National Cancer Institute, NIH, USA

WS24-07-P

### **Roles of SATB1 in Regulation of Thymocyte Migration after Positive Selection**

○ Taku Naito<sup>1</sup>, Marii Ise<sup>1</sup>, Yuriko Tanaka<sup>1</sup>, Taku Kuwabara<sup>1</sup>, Terumi Kohwi-Shigematsu<sup>2</sup>, Motonari Kondo<sup>1</sup>

<sup>1</sup>Dept of Mol Immunol, Toho University School of Medicine, <sup>2</sup>Department of Orofacial Science, University of California

WS24-08-P

### **Investigation of the relationship between T cell differentiation and maturation and autophagy in the thymus**

○ Shigefumi Matsuzawa<sup>1,2</sup>, Aya Ushio<sup>1</sup>, Ruka Nagao<sup>1</sup>, Kunihiro Otsuka<sup>1</sup>, Hiroaki Tawara<sup>1</sup>, Takaaki Tsunematsu<sup>1</sup>, Naozumi Ishimaru<sup>1</sup>

<sup>1</sup>Division of Oral Molecular Pathology, Faculty of Medicine and Pharmacy, Tokushima University, <sup>2</sup>Section of Oral and Maxillofacial Surgery, Division of Maxillofacial Diagnostic and Surgical Sciences, Faculty of Dental Science, Kyushu University

WS24-09-P

### **The roll of IL-7 in formation of the medullary microenvironment in the thymus**

○ Marii Ise, Taku Kuwabara, Yuriko Tanaka, Taku Naito, Motonari Kondo

Department of Molecular Immunology, Faculty of Medicine, Toho University

WS24-10-P

### **c-SMAC formation in double positive T cells as a checkpoint in thymic selection**

○ Hitoshi Nishijima, Ei Wakamatsu, Hiroaki Machiyama, Arata Takeuchi, Tetsushi Nishikawa, Yosuke Yoshida, Tadashi Yokosuka

Tokyo medical university

WS24-11-O/P

### **Understanding of Lck functions during thymocyte differentiation**

○ Junji Harada<sup>1,2</sup>, Ichiro Taniuchi<sup>1</sup>

<sup>1</sup>Laboratory for Transcriptional Regulation, Center for Integrative Medical Sciences, RIKEN, <sup>2</sup>Department of RIKEN Molecular and Chemical Somatology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University

WS24-12-P

### ***In vivo* temporal depletion of Satb1 and PD-1 by OslTIR1 and CRBN degron systems in mice**

○ Motoi Yamashita, Aneela Nomura, Ichiro Taniuchi

Laboratory for Transcriptional Regulation, Center for Integrative Medical Sciences, RIKEN

WS24-13-O/P

### **T cell receptor repertoires of regulatory and conventional T cells converge during differentiation into effector or memory states**

○ Reiko Tsukazaki, Ryuichi Murakami, Shohei Hori

Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo

WS24-14-P

### **Roles of Satb1 in the maintenance of the functional fitness of regulatory and cytotoxic T lymphocytes**

○ Wooseok Seo<sup>1</sup>, Chengcheng Zou<sup>2</sup>, Kanako Shimizu<sup>2</sup>, Ruka Setoguchi<sup>3</sup>, Kiyokazu Kakugawa<sup>2</sup>, Krutula Nair<sup>2</sup>, Shohei Hori<sup>3</sup>, Shin-ichiro Fujii<sup>2</sup>, Hiroyoshi Nishikawa<sup>1</sup>, Ichiro Taniuchi<sup>2</sup>

<sup>1</sup>Nagoya University, <sup>2</sup>RIKEN, <sup>3</sup>The University of Tokyo

WS24-15-P

### **Cohesin-mediated chromatin regulation in the regulatory T cells is required for the immune homeostasis**

○ Kentaro Fujiwara<sup>1,2</sup>, Masaki Miyazaki<sup>2</sup>, Kazuko Miyazaki<sup>2</sup>, Katsuhiko Shirahige<sup>3</sup>, Hiroshi Kawamoto<sup>2</sup>

<sup>1</sup>Kyoto University, School of medicine, <sup>2</sup>Kyoto University, Institute for Life and Medical Sciences, <sup>3</sup>The University of Tokyo, Institute for Quantitative Biosciences

WS24-16-P

### **The roles of transcription elongation factor Cdk9 in T cells**

○ Shin-ichi Tsukumo, Koji Yasutomo

Dept. Immu. and Parasitol., Tokushima Univ.

WS24-17-P

### **Point mutations in the Roryt ligand-binding domain disrupts the generation of IL-17A producing cells in inflammatory autoimmune diseases**

○ Keisuke Miyako<sup>1</sup>, Toshio Kanno<sup>1</sup>, Takahiro Nakajima<sup>1,2</sup>, Yusuke Endo<sup>1</sup>

<sup>1</sup>Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, <sup>2</sup>Faculty of Nursing, Tokyo University of Information Sciences

WS24-18-P

### **The role of Polycomb group gene Eed in invariant NKT cell development and liver protection**

○ Yun Guo, Yohei Kawano, Masamoto Kanno, Tomoharu Yasuda

Department of Immunology, Graduate School of Biomedical & Health Sciences, Hiroshima University

WS24-19-O/P

### **(Pro)renin receptor controls immune responses by promoting the survival of naive T and iNKT cells**

○ Satoru Munakata<sup>1,2</sup>, Akihiro Shimba<sup>1,3</sup>, Koichi Ikuta<sup>1</sup>

<sup>1</sup>Laboratory of Immune Regulation, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Graduate School of Biostudies, Kyoto University, <sup>3</sup>Department of Human Health Sciences, Graduate School of Medicine, Kyoto University

WS24-20-O/P

### **Vitamin C treatment enhances the immune responses of CD8<sup>+</sup> T cells by upregulation of Batf3**

○ Kenta Kondo, Koji Terada, Yasutoshi Agata

Department of Biochemistry and Molecular Biology, Shiga University of Medical Science

WS24-21-P

### **The transcription factor BATF fine-tunes the naïve-to-effector differentiation of CD8<sup>+</sup> T cells**

○ Sotaro Fujisawa<sup>1</sup>, Yamato Tanabe<sup>1</sup>, Toshikatsu Tamai<sup>1</sup>, Arisa Hojo<sup>1</sup>, Junko Kurachi<sup>1</sup>, Miki Koura<sup>1</sup>, Yusuke Miyanari<sup>2</sup>, Satoshi Ueha<sup>3</sup>, Makoto Kurachi<sup>1</sup>

<sup>1</sup>Department of Molecular genetics, Graduate School of Medical Sciences, Kanazawa University, <sup>2</sup>WPI Nano Life Science Institute, Kanazawa University, <sup>3</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science

WS24-22-P

### **N-myristoylated lipopeptide-specific T cell development independently of TAP transporters**

○ Hiromu Suzuki<sup>1,2</sup>, Daisuke Morita<sup>1,2</sup>

<sup>1</sup>Laboratory of Cell Regulation, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Laboratory of Cell Regulation and Molecular Network, Graduate School of Biostudies, Kyoto University

WS24-23-P

### **A novel mycobacterial lipid-specific T cell subset commonly present in humans**

○ Yuki Sakai<sup>1,2</sup>, Nagatoshi Fujiwara<sup>3</sup>, Takashi Yoshiyama<sup>4</sup>, Yoshihiko Hoshino<sup>5</sup>, Sho Yamasaki<sup>1,2</sup>

<sup>1</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan, <sup>2</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center (iFReC), Osaka University, Osaka, Japan, <sup>3</sup>Department of Food and Nutrition, Faculty of Contemporary Human Life Science, Tezukayama University, Nara, Japan, <sup>4</sup>Fukujiji Hospital, Japan Anti-Tuberculosis Association, Tokyo, Japan, <sup>5</sup>Department of Mycobacteriology, Leprosy Research Center, National Institute of Infectious Diseases, Tokyo, Japan

WS24-24-O/P

### **Unique structural basis of the recognition of bulky mycobacterial glycolipid by a novel CD1-restricted TCR**

○ Minoru Asa<sup>1,2</sup>, Yuki Sakai<sup>1,2</sup>, Wakana Kusuhara<sup>1,2</sup>, Sho Yamasaki<sup>1,2</sup>

<sup>1</sup>Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, <sup>2</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center (iFReC), Osaka University

WS24-25-P

### **Development of damage less detachment technique of target cells from magnetically-labeled cells in magnetic cell separation**

○ Ryutaro Imamura, Misaki Suzuki, Norihiro Yoshizaki, Tomoyuki Ohtake

NOF Corporation

WS24-26-P

### **Method for detection of antigen-specific T cell using imaging flow cytometry**

○ Toyoko Katayama<sup>1</sup>, Yoshiki Shirakata<sup>1</sup>, Naoko Ikuta<sup>2</sup>, Masaki Tajima<sup>2,3</sup>, Tasuku Honjo<sup>4</sup>, Akio Ohta<sup>2</sup>, Hitoshi Uga<sup>1</sup>

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WS24-27-P

### **Perturbations in SARS-CoV-2-specific T cells and their receptors following infection and vaccination in Long COVID patients**

○ Louise Rowntree<sup>1</sup>, Oanh Nguyen<sup>1</sup>, Wuji Zhang<sup>1</sup>, Jan Petersen<sup>2</sup>, Lukasz Kedzierski<sup>1</sup>, Carolien van de Sandt<sup>1</sup>, Irani Thevarajan<sup>3</sup>, Jamie Rossjohn<sup>2</sup>, Katherine Kedzierska<sup>1</sup>

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WS24-28-P

### **Potent antigen-specific T-cell responses by saRNA vaccine expressing membrane-anchored RBD against SARS-CoV-2**

○ Takuto Nogimori<sup>1</sup>, Mai Komori<sup>2</sup>, Yuji Masuta<sup>1</sup>, Hiroataka Ode<sup>3</sup>, Tomokazu Tamura<sup>4</sup>, Rigel Suzuki<sup>4</sup>, Kenta Matsuda<sup>2</sup>, Takasuke Fukuhara<sup>4</sup>, Yasumasa Iwatani<sup>3</sup>, Wataru Akahata<sup>2</sup>, Takuya Yamamoto<sup>1,5,6</sup>

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## January 19

### **WS25 Mucosal-skin immunity2**

WS25-01-O/P

#### **TRPV1<sup>+</sup> sensory neuron enhances dendritic cell migration to lymph nodes by a CGRP-RAMP1 axis in contact hypersensitivity**

○ Masafumi Yamanaka<sup>1</sup>, Otagiri Tomoki<sup>1</sup>, Daisuke Kamako<sup>1</sup>, Kohta Kurohane<sup>1</sup>, Michio Tomura<sup>2</sup>, Gyohei Egawa<sup>3</sup>, Kenji Kabashima<sup>3</sup>, Eiji Umemoto<sup>1</sup>

<sup>1</sup>Laboratory of Microbiology and Immunology, School of Pharmaceutical Sciences, University of Shizuoka, <sup>2</sup>Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, <sup>3</sup>Department of Dermatology, Kyoto University Graduate School of Medicine

WS25-02-O/P

#### **Role of cutaneous free fatty acids in the pathogenesis of acne vulgaris**

○ Takashi Sugihira<sup>1,2,3</sup>, Seitaro Nakagawa<sup>1,3</sup>, Manabu Fujimoto<sup>3</sup>, Yumi Matsui-Nakamura<sup>1,3,4</sup>

<sup>1</sup>Department of Cutaneous Immunology and Microbiology, Graduate School of Medicine, Osaka University, <sup>2</sup>Basic Research Development Division, Rohto Pharmaceutical Co., Ltd., <sup>3</sup>Department of Dermatology, Graduate School of Medicine, Osaka University, <sup>4</sup>Cutaneous Allergy and Host Defense, Immunology Frontier Research Center, Osaka University

WS25-03-O/P

#### **Analyses of CD8<sup>+</sup> gd T cells observed in mouse psoriasis model with imiquimod application**

○ Himawari Matsunaga, Koichi Sudo, Kazuhiko Takahara

Laboratory of Immunobiology, Graduate school of Biostudies, Kyoto University

WS25-04-O/P

#### **Sensory neuronal STAT3 is critical for IL-31 receptor expression and inflammatory itch**

○ Sonoko Takahashi<sup>1</sup>, Sotaro Ochiai<sup>1,2</sup>, Jianshi Jin<sup>3</sup>, Noriko Takahashi<sup>1</sup>, Susumu Toshima<sup>1,4</sup>, Harumichi Ishigame<sup>1,5</sup>, Kenji Kabashima<sup>6</sup>, Masato Kubo<sup>1,7</sup>, Manabu Nakayama<sup>8</sup>, Katsuyuki Shiroguchi<sup>9</sup>, Takaharu Okada<sup>1,10</sup>

<sup>1</sup>RIKEN IMS, <sup>2</sup>Malaghan Institute of Medical Research, <sup>3</sup>Chinese Academy of Sciences, <sup>4</sup>Keio University, <sup>5</sup>Kansai Medical University, <sup>6</sup>Kyoto University, <sup>7</sup>Tokyo University of Science, <sup>8</sup>Kazusa DNA Research Institute, <sup>9</sup>RIKEN BDR, <sup>10</sup>Yokohama City University

WS25-05-O/P

#### **Deubiquitinase OTUD3 prevents progression of ulcerative colitis by modulating microbiota-mediated STING activation in intestinal fibroblasts**

○ Bo Li<sup>1</sup>, Taiki Sakaguchi<sup>1</sup>, Hisako Kayama<sup>1,2,3</sup>, Kiyoshi Takeda<sup>1,2,4</sup>

<sup>1</sup>Laboratory of Immune Regulation, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>2</sup>WPI Immunology Frontier Research Center, Osaka University, <sup>3</sup>Institute for Advanced Co-Creation Studies, Osaka University, <sup>4</sup>Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University

WS25-06-O/P

#### **Microbiota-dependent activation of CD4<sup>+</sup> T cells induces CTLA-4 blockade-associated colitis via Fcγ receptors**

○ Bernard Lo, Gabriel Núñez

University of Michigan

WS25-07-O/P

### **Bacterial induction of B cell senescence promotes age-related changes in the gut microbiota**

○ Shimpei Kawamoto<sup>1</sup>, Ken Uemura<sup>1</sup>, Nozomi Hori<sup>1</sup>, Kazutaka Katoh<sup>1</sup>, Takahiro Adachi<sup>2</sup>, Naoko Ohtani<sup>3</sup>, Standley M. Daron<sup>1,4,5</sup>, Wataru Suda<sup>6</sup>, Shinji Fukuda<sup>7,8,9,10</sup>, Eiji Hara<sup>1,4,5</sup>

<sup>1</sup>Research Institute for Microbial Diseases, Osaka University, <sup>2</sup>Medical Research Institute, Tokyo Medical and Dental University, <sup>3</sup>Graduate School of Medicine, Osaka Metropolitan University, <sup>4</sup>Immunology Frontier Research Center, Osaka University, <sup>5</sup>Center for Infectious Disease Education and Research, Osaka University, <sup>6</sup>RIKEN Center for Integrative Medical Sciences, <sup>7</sup>Institute for Advanced Biosciences, Keio University, <sup>8</sup>Kanagawa Institute of Industrial Science and Technology, <sup>9</sup>Transborder Medical Research Center, University of Tsukuba, <sup>10</sup>Juntendo University Graduate School of Medicine

WS25-08-O/P

### **Commensal microorganisms cooperatively promote polyreactive S-IgA production by inducing follicular helper T cells in Peyer's patch**

○ Kisara Hattori, Daisuke Takahashi, Koji Hase

Graduate School of Pharmaceutical Science, Keio University

WS25-09-O/P

### **Disentangling the Connection between Oral and Gut During the Intestinal Tumorigenesis**

○ Sho Kitamoto

WPI Immunology Frontier Research Center Osaka University

WS25-10-P

### **Roles of tumor necrosis factor-like ligand 1A in $\gamma\delta$ T cell activation and psoriasis pathogenesis**

○ Kensuke Takada<sup>1</sup>, Shangyi Wang<sup>2</sup>, Mina Kozai<sup>1</sup>, Md. Zahir Uddin Rubel<sup>2</sup>, Masaya Hiraishi<sup>2</sup>, Osamu Ichii<sup>2</sup>, Mutsumi Inaba<sup>2</sup>, Kazuhiro Matsuo<sup>1</sup>

<sup>1</sup>Institute for Vaccine Research & Development, Hokkaido University, <sup>2</sup>Faculty of Veterinary Medicine, Hokkaido University

WS25-11-P

### **Dermatitis of the GATA3 mutant mice**

○ Shoichiro Miyatake

Department of Immunology Graduate School of Environmental Health Sciences, Azabu University

WS25-12-P

### **Activation of enteric neurons by intestinal inflammation**

○ Masahiro Okamoto<sup>1</sup>, Lisa Fujimura<sup>2</sup>, Takashi Fumita<sup>4</sup>, Yoshio Katsumata<sup>3,4</sup>, Akemi Sakamoto<sup>2,3</sup>, Masahiko Hatano<sup>2,3</sup>

<sup>1</sup>School of Medicine, Chiba University, <sup>2</sup>Biomedical Research Center, Chiba University, <sup>3</sup>Department of Biomedical Science, Graduate School of Medicine, Chiba University, <sup>4</sup>Department of Pediatric Surgery, Graduate School of Medicine, Chiba University

WS25-13-P

### **3D-visualization of sublingual immune cell clusters with sensory neurons**

○ Mayuko Hashimoto<sup>1</sup>, Tetsushi Hoshida<sup>2</sup>, Yutaka Kusumoto<sup>1</sup>, Atsushi Miyawaki<sup>2</sup>, Michio Tomura<sup>1</sup>

<sup>1</sup>Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, <sup>2</sup>Laboratory for Cell Function Dynamics, RIKEN Center for Brain Science

WS25-14-P

### **Withdrawn**

WS25-15-P

### **Involvement of innate lymphoid cells in the starvation-induced ketogenesis**

○ Takuma Misawa, Shigeo Koyasu

RIKEN, Center for Integrative Medical Sciences, Laboratory for Immune Cell Systems

WS25-16-P

### **Water restriction disputes the gastrointestinal homeostasis**

○ Kensuke Sato<sup>1,2,3</sup>, Joe Inoue<sup>4</sup>, Yun-Gi Kim<sup>2</sup>

<sup>1</sup>Institute for Advanced Biosciences, Keio University, <sup>2</sup>Research Center for Drug Discovery, Faculty of Pharmacy and Graduate School of Pharmaceutical Sciences, Keio University, <sup>3</sup>Graduate School of Media and Governance, Keio University, <sup>4</sup>Department of Biochemistry, Faculty of Pharmacy and Graduate School of Pharmaceutical Sciences, Keio University

WS25-17-P

### **Adherent-invasive *E. coli* induced specific IgA limits pathobiont localization to the epithelial niche in the gut**

○ Rika Tanaka<sup>1</sup>, Jin Imai<sup>2</sup>, Hitoshi Tsugawa<sup>3</sup>, Nobuhiko Kamada<sup>4</sup>, Katsuto Hozumi<sup>1</sup>

<sup>1</sup>Dept. Immunol., Div. Infect. Host Def., Tokai Univ. Sch. Med., <sup>2</sup>Department of Clinical Health Science, Tokai University School of Medicine, Isehara, Japan, <sup>3</sup>Transkingdom Signaling Research Unit, Division of Host Defense Mechanism, Tokai University School of Medicine, Isehara, Japan, <sup>4</sup>Dept. Internal Med., Div. Gastroenterol., University of Michigan

WS25-18-P

### **Milk-derived immune factors affect intestinal immune development in infants**

○ Kaori Ito, Kota Sakurai, Jahidul Islam, Tomonori Nochi

International Education and Research Center for Food and Agricultural Immunology, Graduate School of Agricultural Science, Tohoku University

WS25-19-P

### Nasal immunization with *Streptococcus mutans* membrane vesicles and nano-size hydroxyapatite induced mucosal IgA Ab responses

○ Tomomi Hashizume-Takizawa<sup>1</sup>, Chihiro Mochizuki<sup>2</sup>, Yuki Sakai<sup>2</sup>, Koichi Nakamura<sup>2</sup>, Hidenobu Senpuku<sup>1</sup>  
<sup>1</sup>Dept. Microbiol. Immunol., Nihon Univ. Sch. Dent. at Matsudo, <sup>2</sup>BIOAPATITE, INC.

WS25-20-P

### Elucidation of chemical structures and physicochemical properties related to mucosal adjuvanticity of sugar-based surfactants –second report–

○ Naoto Yoshino, Takashi Odagiri, Yasushi Muraki  
 Division of Infectious Diseases and Immunology, Department of Microbiology, School of Medicine, Iwate Medical University

WS25-21-P

### APL downregulation in T cells in an animal model of chronic colitis

○ Mone Fushimi<sup>1,2</sup>, Tadahiko Inoue<sup>2</sup>, Daiki Yamada<sup>2</sup>, Yudai Kojima<sup>2</sup>, Akinori Hosoya<sup>2</sup>, Taro Watabe<sup>2</sup>, Mamoru Watanabe<sup>2</sup>, Ryuichi Okamoto<sup>2</sup>, Takashi Nagaishi<sup>2</sup>  
<sup>1</sup>Tokyo Univ. Science, Dept. Applied Chemistry, <sup>2</sup>Tokyo Medical and Dental Univ., Dept. Gastroenterology

WS25-22-P

### The UDP-glucose-P2Y14 receptor pathway exaggerates eosinophil-mediated colitis

○ Li Liu<sup>1</sup>, Hisako Kayama<sup>1,2,3</sup>, Kiyoshi Takeda<sup>1,2,4</sup>  
<sup>1</sup>Laboratory of Immune Regulation, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, <sup>2</sup>WPI Immunology Frontier Research Center, Osaka University, <sup>3</sup>Institute for Advanced Co-Creation Studies, Osaka University, <sup>4</sup>Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University

WS25-23-P

### An inflammatory bowel disease-associated SNP increases local thyroglobulin expression to develop inflammation in Miniature Dachshunds

Yong Bin Teoh<sup>1</sup>, Jing-Jing Jiang<sup>1</sup>, ○ Takeshi Yamasaki<sup>2</sup>, Noriyuki Nagata<sup>1</sup>, Toshiki Sugawara<sup>1</sup>, Rie Hasebe<sup>2</sup>, Hiroshi Ohta<sup>4</sup>, Noboru Sasaki<sup>1</sup>, Nozomu Yokoyama<sup>1</sup>, Kensuke Nakamura<sup>1</sup>, Mitsuyoshi Takiguchi<sup>1</sup>, Masaaki Murakami<sup>1,2,3</sup>  
<sup>1</sup>Hokkaido University, <sup>2</sup>National Institute for Physiological Sciences, <sup>3</sup>National Institute for Quantum and Radiological Science and Technology, <sup>4</sup>Rakuno Gakuen University

## January 19

### WS26 Human immunology and immunogenetics

WS26-01-O/P

### CD62L expression marks SARS-CoV-2 memory B-cell subset with preference for neutralizing epitopes

○ Taishi Onodera<sup>1</sup>, Yu Adachi<sup>1</sup>, Ryutarō Kotaki<sup>1</sup>, Takeshi Inoue<sup>2</sup>, Ryo Shinnakasu<sup>2</sup>, Saya Moriyama<sup>1</sup>, Takayuki Matsumura<sup>1</sup>, Masanori Isogawa<sup>1</sup>, Masaharu Shinkai<sup>5</sup>, Tomohiro Kurosaki<sup>2,3</sup>, Kazuo Yamashita<sup>4</sup>, Yoshimasa Takahashi<sup>1</sup>  
<sup>1</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, <sup>2</sup>Center for Infectious Diseases Education and Research, Osaka University; Osaka, Japan, <sup>3</sup>Laboratory of Lymphocyte Differentiation, WPI Immunology Frontier Research Center, Osaka University; Osaka, Japan, <sup>4</sup>KOTAI Biotechnologies, Inc., <sup>5</sup>Tokyo Shinagawa Hospital; Tokyo, Japan

WS26-02-O/P

### CD8<sup>+</sup> T-cell memory induced by SARS-CoV-2 mRNA vaccination is maintained by clonal replenishment

○ Satoshi Ueha<sup>1</sup>, Hiroyasu Aoki<sup>1</sup>, Masahiro Kitabatake<sup>2</sup>, Shigeyuki Shichino<sup>1</sup>, Atsushi Hara<sup>2</sup>, Noriko Oujii-Sageshima<sup>2</sup>, Toshihiro Ito<sup>2</sup>, Kouji Matsushima<sup>1</sup>  
<sup>1</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, <sup>2</sup>Department of Immunology, Nara Medical University

WS26-03-P

### Analysis of T cell diversity and clonality by single-cell sequencing and epitope mapping in phase 1/2 priming and booster study of COVID-19 vaccine S-268019-b

○ Naomi M Seki<sup>1</sup>, Xiuyuan Lu<sup>2</sup>, Masaya Fujitani<sup>1</sup>, Yujiro Kidani<sup>1</sup>, Satoru Ishida<sup>1</sup>, Risa Yokokawa<sup>3</sup>, Takuhiro Sonoyama<sup>4</sup>, Mari Ariyasu<sup>3</sup>, Shinya Omoto<sup>1</sup>, Sho Yamasaki<sup>2</sup>  
<sup>1</sup>Laboratory for Bio-Drug Discovery, Biopharmaceutical Research Division, Shionogi & Co., Ltd., Osaka, Japan, <sup>2</sup>Laboratory of Molecular Immunology, Immunology Frontier Research Center, Osaka University, Osaka, Japan, <sup>3</sup>Project Management Department, Drug Development and Regulatory Science Division, Shionogi & Co., Ltd., Osaka, Japan, <sup>4</sup>Medical Science Department, Drug Development and Regulatory Science Division, Shionogi & Co., Ltd., Osaka, Japan

WS26-04-P

### Single-cell transcriptome and repertoire analysis of antigen specific B cells in phase 1/2 priming and booster study of COVID-19 vaccine S-268019-b

○ Masaya Fujitani<sup>1)</sup>, Ryo Shinnakasu<sup>2)</sup>, Yujiro Kidani<sup>1)</sup>, Naomi M Seki<sup>1)</sup>, Satoru Ishida<sup>1)</sup>, Takuhiro Sonoyama<sup>3)</sup>, Mari Ariyasu<sup>4)</sup>, Shinya Omoto<sup>1)</sup>, Tomohiro Kurosaki<sup>2)</sup>

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WS26-05-P

### Analysis of antigen-specific T and B cell responses in elderly subjects in booster immunization of COVID-19 vaccine S-268019-b

○ Yujiro Kidani<sup>1)</sup>, Masaya Fujitani<sup>1)</sup>, Naomi M Seki<sup>1)</sup>, Kumiko Goto<sup>1)</sup>, Natsumi Susai<sup>1)</sup>, Ken Yoshihara<sup>1)</sup>, Risa Yokokawa<sup>2)</sup>, Takuhiro Sonoyama<sup>3)</sup>, Mari Ariyasu<sup>2)</sup>, Satoru Ishida<sup>1)</sup>, Shinya Omoto<sup>1)</sup>

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WS26-06-P

### IFN- $\alpha$ Production Tests: What Can They Tell Us?

○ Kazuko Uno

Louis Pasteur Center for Medical Research

WS26-07-P

### The effect of quercetin glycoside oral administration on mRNA vaccination in the potentially high-risk group of SARS-CoV-2 infection

○ Ayae Nishiyama<sup>1)</sup>, Shokichi Takahama<sup>1)</sup>, Aiko Tanaka<sup>2)</sup>, Hiroyo Kagami-Katsuyama<sup>2)</sup>, Kouji Satoh<sup>2)</sup>, Keiichi Abe<sup>3,1)</sup>, Jun Nishihira<sup>2)</sup>, Takuya Yamamoto<sup>1)</sup>

<sup>1)</sup>National Institutes of Biomedical Innovation, Health and Nutrition, <sup>2)</sup>Hokkaido Information Univ., <sup>3)</sup>The Research Foundation for Microbial Diseases of Osaka Univ.

WS26-08-P

### Oral vaccination using Recombinant *Bacillus subtilis* Spores Expressing SARS-CoV-2 Spike Protein with Chinese Herbal Medicines

○ Ben Chung-Lap Chan<sup>1)</sup>, Peiting Li<sup>1)</sup>, Miranda Sin-Man Tsang<sup>1,2)</sup>, Johnny Chun-Chau Sung<sup>3)</sup>, Keith Wai-Yeung Kwong<sup>3)</sup>, Sharon Sze-Man Hon<sup>4)</sup>, Clara Bik-San Lau<sup>1)</sup>, Ping-Chung Leung<sup>1)</sup>, Chun-Kwok Wong<sup>1,4,5)</sup>

<sup>1)</sup>Institute of Chinese Medicine and State Key Laboratory of Research on Bioactivities and Clinical Applications of Medicinal Plants, The Chinese University of Hong Kong, Hong Kong, China, <sup>2)</sup>China-Australia International Research Centre for Chinese Medicine, School of Health and Medical Sciences, STEM College, RMIT University, Bundoora, Victoria, Australia, <sup>3)</sup>Research Department, DreamTec Cytokines Limited, Hong Kong, China, <sup>4)</sup>Department of Chemical Pathology, The Chinese University of Hong Kong, Prince of Wales Hospital, Hong Kong, <sup>5)</sup>Li Dak Sum Yip Yio Chin R & D Centre for Chinese Medicine, The Chinese University of Hong Kong, Hong Kong, China

WS26-09-O/P

### Lethal Cytokine Storm and Microthrombosis Post-mRNA Booster Vaccination

○ Yuki Masuo<sup>1,2)</sup>, Hiroyuki Yoshitomi<sup>1)</sup>, Takao Hashiguchi<sup>2,4)</sup>, Sachiko Minamiguchi<sup>5)</sup>, Takamoto Hirota<sup>6)</sup>, Kinta Hatakeyama<sup>7)</sup>, Yoshihiko Ikeda<sup>7)</sup>, Keiko Ohta-Ogo<sup>7)</sup>, Masanori Matsumoto<sup>8)</sup>, Tomoya Hayashi<sup>9)</sup>, Ken J. Ishii<sup>9)</sup>, Hideki Ueno<sup>1,2,3)</sup>

<sup>1)</sup>Department of Immunology, Graduate School of Medicine, Kyoto University, <sup>2)</sup>Kyoto University Immunomonitoring Center, Kyoto University, <sup>3)</sup>ASHBi Institute for the Advanced Study of Human Biology, Kyoto University, <sup>4)</sup>Laboratory of Medical Virology, Institute for Life and Medical Sciences, Kyoto University, <sup>5)</sup>Department of Diagnostic Pathology, Kyoto University Hospital, <sup>6)</sup>Department of Cardiology, Osaka Saiseikai Noe Hospital, <sup>7)</sup>Department of Pathology, National Cerebral and Cardiovascular Center Hospital, <sup>8)</sup>Department of Hematology, Nara Medical University, <sup>9)</sup>Division of Vaccine Science, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo

WS26-10-O/P

### Profound increase of $\alpha$ -synuclein-specific Th17 responses in Parkinson's disease is associated with adjuvant effects of $\alpha$ -synuclein aggregates to dendritic cells

○ Emi Nishii<sup>1)</sup>, Soichiro Yoshikawa<sup>1)</sup>, Asako Chiba<sup>1)</sup>, Ayami Okuzumi<sup>2)</sup>, Shin-ichi Ueno<sup>2)</sup>, Yasunobu Hoshino<sup>2)</sup>, Taku Hatano<sup>2)</sup>, Nobutaka Hattori<sup>2)</sup>, Sachiko Miyake<sup>1)</sup>

<sup>1)</sup>Department of Immunology Juntendo University Faculty of Medicine, <sup>2)</sup>Department of Neurology Juntendo University Faculty of Medicine

WS26-11-O/P

### Quantification of the escape from X chromosome inactivation with the million cell-scale human blood single-cell RNA-seq datasets reveals heterogeneity of escape across immune cells

○ Yoshihiko Tomofuji<sup>1,3)</sup>, Ryuya Eda<sup>1,3)</sup>, Yuya Shirai<sup>1)</sup>, Kyuto Sonehara<sup>1,2,3)</sup>, Qingbo Wang<sup>1,2,3)</sup>, Atsushi Kumanogoh<sup>1)</sup>, Yukinori Okada<sup>1,2,3)</sup>

<sup>1)</sup>Osaka University Graduate School of Medicine, <sup>2)</sup>Graduate School of Medicine, The University of Tokyo, <sup>3)</sup>RIKEN Center for Integrative Medical Science



WS26-12-O/P

### **A gene expression regulatory variant in *CD58* confers susceptibility to human autoimmune diseases**

○ Yuki Hitomi<sup>1)</sup>, Yoshihiro Aiba<sup>2)</sup>, Minoru Nakamura<sup>2,3)</sup>

<sup>1)</sup>Department of Human Genetics, Research Institute, National Center for Global Health and Medicine, <sup>2)</sup>Clinical Research Center, National Hospital Organization (NHO) Nagasaki Medical Center, <sup>3)</sup>Department of Hepatology, Nagasaki University Graduate School of Biomedical Sciences

WS26-13-O/P

### **A simultaneous examination of transcriptome, mucin protein expression, and histology in Japanese childhood ulcerative colitis patients**

○ Kosuke Kashiwagi<sup>1,2)</sup>, Tomoaki Ando<sup>1)</sup>, Masanori Toda<sup>1,2)</sup>, Ayako Kaitani<sup>1)</sup>, Kumi Izawa<sup>1)</sup>, Keisuke Jimbo<sup>2)</sup>, Takahiro Kudo<sup>2)</sup>, Toshiaki Shimizu<sup>1,2)</sup>, Jiro Kitaura<sup>1)</sup>

<sup>1)</sup>Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, <sup>2)</sup>Department of Pediatrics, Juntendo University Graduate School of Medicine

WS26-14-P

### **Identification and characterization of the novel fusion gene *LILRB3-LILRB5* by long-read sequencing technology**

○ Kouyuki Hirayasu<sup>1,2,3)</sup>, Seik-Soon Khor<sup>4)</sup>, Yosuke Kawai<sup>4)</sup>, Gen Hasegawa<sup>2)</sup>, Katsushi Tokunaga<sup>4)</sup>, Rikinari Hanayama<sup>1,2,5)</sup>, Masao Nagasaki<sup>6)</sup>

<sup>1)</sup>Advanced Preventive Medical Sciences Research Center, Kanazawa University, <sup>2)</sup>Department of Immunology, Graduate School of Medical Sciences, Kanazawa University, <sup>3)</sup>Department of Evolutionary Immunology, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University, <sup>4)</sup>Genome Medical Science Project, National Center for Global Health and Medicine, <sup>5)</sup>WPI Nano Life Science Institute (NanoLSI), Kanazawa University, <sup>6)</sup>Division of Biomedical Information Analysis, Medical Research Center for High Depth Omics, Medical Institute of Bioregulation, Kyushu University

WS26-15-P

### **Expression of programmed cell death 1 is inversely correlated with the pathological cellular density of infiltrating CD8+ T cells in alopecia areata**

○ Akiyoshi Senda, Toshiaki Kogame, Takashi Nomura, Satoru Yonekura, Satoshi Nakamizo, Kenji Kabashima  
Department of Dermatology, Kyoto University Graduate School of Medicine

WS26-16-P

### **Angiopoietin-like 4 is a critical mediator for fibroblast activation in pulmonary fibrosis**

○ Masahiro Kitabatake<sup>1)</sup>, Noriko Oujii-Sageshima<sup>1)</sup>, Atsushi Hara<sup>1)</sup>, Ryutaro Furukawa<sup>1)</sup>, Akihisa Oda<sup>2)</sup>, Shigeyuki Shichino<sup>3)</sup>, Satoshi Ueha<sup>3)</sup>, Kouji Matsushima<sup>3)</sup>, Toshihiro Ito<sup>1)</sup>

<sup>1)</sup>Department of Immunology, Nara Medical University, <sup>2)</sup>Department of Pediatrics, Nara Medical University, <sup>3)</sup>Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science

WS26-17-P

### **Protein S overexpression exacerbates high-fat diet-induced fatty liver**

○ Taro Yasuma<sup>1,2)</sup>, Atsuro Takeshita<sup>1,2)</sup>, Yuko Okano<sup>1,2)</sup>, Chisa Inoue<sup>1,2)</sup>, Corina Gabazza<sup>1)</sup>, Valeria Fridman<sup>1)</sup>, Suphachai Tharavecharak<sup>1)</sup>, Masaaki Toda<sup>1)</sup>, Kota Nishihama<sup>2)</sup>, Yutaka Yano<sup>1)</sup>, Esteban Gabazza<sup>1)</sup>

<sup>1)</sup>Department of Immunology, Mie University Graduate School of Medicine, <sup>2)</sup>Department of Diabetes and Endocrinology, Mie University Graduate School of Medicine

WS26-18-P

### **The mild heat stimulation through the specific points of the skin surface changes human immunity and systemic constancy**

○ Takuma Nakajima, Astuko Ozaki Shimada, Keiso Ishimaru, Kenji Ryotokuji  
Ryotokuji University

WS26-19-P

### **A novel macrophage population exacerbates intestinal fibrosis via a SAA-Th17-dependent mechanism**

○ Junya Tsunoda<sup>1,2)</sup>, Yoshiaki Takada<sup>1)</sup>, Ichiro Mizushima<sup>1)</sup>, Kentaro Iwata<sup>1)</sup>, Yuta Kaieda<sup>1)</sup>, Yuya Hagihara<sup>1)</sup>, Shinya Sugimoto<sup>1)</sup>, Rino Ishihara<sup>1)</sup>, Yohei Mikami<sup>1)</sup>, Takanori Kanai<sup>1)</sup>

<sup>1)</sup>Division of Gastroenterology and Hepatology Department of Internal Medicine, Keio University School of Medicine, <sup>2)</sup>Department of Surgery, Keio University School of Medicine

## January 19

### **WS27 Hematopoiesis and immune environment**

WS27-01-O/P

#### **Evolutionary anlage of T cells and thymus in invertebrate ancestors**

○ Yosuke Nagahata<sup>1)</sup>, Ryota Kaitani<sup>1)</sup>, Izumi Oda<sup>2)</sup>, Yutaka Satou<sup>2)</sup>, Hiroshi Kawamoto<sup>1)</sup>

<sup>1)</sup>Laboratory of Immunology, Institute for Life and Medical Sciences, Kyoto University, <sup>2)</sup>Department of Zoology, Graduate School of Science, Kyoto University



WS27-02-P

### **Distinct bidirectional regulation of integrins by Rap1, talin1 and kindlin-3 in T cells under shear flow**

○ Yuji Kamioka<sup>1</sup>, Yoshihiro Ueda<sup>1</sup>, Naoyuki Kondo<sup>1</sup>, Tatsuo Kinashi<sup>2</sup>

<sup>1</sup>Department of Molecular Genetics, Institute of Biomedical Science, Kansai Medical University, <sup>2</sup>Kansai Medical University

WS27-03-P

### **Development of two mouse strains conditionally expressing bright luciferases with distinct emission spectra as new tools for in vivo imaging**

○ Toshiaki Nakashiba<sup>1</sup>, Katsunori Ogoh<sup>2</sup>, Satoshi Iwano<sup>3</sup>, Takashi Sugiyama<sup>4</sup>, Saori Mizuno-Iijima<sup>1</sup>, Kenichi Nakashima<sup>1</sup>, Seiya Mizuno<sup>5</sup>, Fumihiko Sugiyama<sup>5</sup>, Atsushi Yoshiki<sup>1</sup>, Atsushi Miyawaki<sup>3</sup>, Kuniya Abe<sup>1</sup>

<sup>1</sup>RIKEN BRC, <sup>2</sup>Olympus Corporation, <sup>3</sup>RIKEN CBS, <sup>4</sup>Evident Corporation, <sup>5</sup>University of Tsukuba

WS27-04-P

### **Physical and functional interaction among *Irf8* enhancers during dendritic cell differentiation**

○ Takaya Yamasaki, Akira Nishiyama, Tomohiko Tamura

Department of Immunology, Yokohama City University Graduate School of Medicine

WS27-05-O/P

### **Single cell genomics revealed critical molecules affecting cell fate of human stem/progenitor cells**

○ Makoto Iwasaki<sup>1,2</sup>, Luginbuehl Joachim<sup>1</sup>, Yoriko Saito<sup>1</sup>, Ari Itoh-Nakadai<sup>1</sup>, Leonard Shultz<sup>3</sup>, Akifumi Takaori-Kondo<sup>2</sup>, Jay Shin<sup>1</sup>, Fumihiko Ishikawa<sup>1</sup>

<sup>1</sup>RIKEN Center for Integrative Medical Sciences, Yokohama, Japan, <sup>2</sup>Department of Hematology and Oncology, Kyoto University, Kyoto, Japan, <sup>3</sup>The Jackson Laboratory

WS27-06-P

### **Revised model of interferon regulatory factor 8 (IRF8)-dose dependent myeloid cell differentiation**

○ Hiroshi Okuda<sup>1</sup>, Juri Ichikawa<sup>1</sup>, Takaya Yamasaki<sup>1</sup>, Hiroaki Kume<sup>1</sup>, Kenichi Asano<sup>2</sup>, Tomohiko Tamura<sup>1</sup>

<sup>1</sup>Department of Immunology, Yokohama City University Graduate School of Medicine, <sup>2</sup>Lab. of Immune Regulation, Tokyo University of Pharmacy and Life Sciences

WS27-07-O/P

### **Manipulation of HSPC lineage priming via antisense-oligonucleotide-mediated expression of Nfkbiz**

○ Shinnosuke Yamada<sup>1</sup>, Takuya Uehata<sup>1</sup>, Kazunori Toratani<sup>1</sup>, Daisuke Ori<sup>2</sup>, Osamu Takeuchi<sup>1</sup>

<sup>1</sup>Department of Medical Chemistry, Graduate School of Medicine, Kyoto University, <sup>2</sup>Laboratory of Molecular Immunobiology, Graduate School of Biological Sciences, Nara Institute of Science and Technology

WS27-08-O/P

### **Interaction of Bcl11b with Cxnc1 is required for the establishment of the chromatin structure in thymocytes**

○ Kazuki Okuyama, Ichiro Taniuchi

Lab for Transcriptional Regulation, RIKEN IMS

WS27-09-O/P

### **Polycomb group proteins PCGF2 and PCGF4 work together during erythrocyte and megakaryocyte differentiation**

○ Mayumi Hirakawa, Yutaro Ohashi, Mizuki Sakihara, Tomokatsu Ikawa

Tokyo University of Science

WS27-10-P

### **Dissecting the heterogenous keloid microenvironment with spatial technologies**

○ Yingrou Tan<sup>1,2</sup>, Immanuel Weng Han Kwok<sup>2</sup>, Jinmiao Chen<sup>2</sup>, Lai Guan Ng<sup>3</sup>, Hong Liang Tey<sup>1</sup>

<sup>1</sup>National Skin Centre, <sup>2</sup>Singapore Immunology Network, A\*STAR, Singapore, <sup>3</sup>Shanghai Immune Therapy Institute, Shanghai Jiao Tong University School of Medicine, Renji Hospital, Shanghai, China

WS27-11-P

### **Accumulation and presentation of lymph-borne antigens in the lymph node medulla for rapid T-cell response**

○ Tomoya Katakai, Madoka Ozawa

Dept. Immunology, Niigata University Graduate School of Medical and Dental Sciences

WS27-12-O/P

### **Semaphorin 6D maintains amygdalar neural integrity to coordinate emotional, metabolic and inflammatory outputs**

○ Mayuko Izumi, Yoshimitsu Nakanishi, Atsushi Kumanogoh

Department of Respiratory Medicine and Clinical Immunology, Graduate School of medicine, Osaka University

WS27-13-O/P

### **DNAM-1 immunoreceptor protects mice from concanavalin A-induced acute liver injury by reducing neutrophil infiltration**

○ Soichi Matsuo<sup>1,2</sup>, Tsukasa Nabekura<sup>3,4</sup>, Kenshiro Matsuda<sup>3,4</sup>, Kazuko Shibuya<sup>1,4</sup>, Akira Shibuya<sup>1,3,4</sup>

<sup>1</sup>Department of Immunology, Faculty of Medicine, University of Tsukuba, Japan, <sup>2</sup>Doctoral Program in Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan, <sup>3</sup>Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan, <sup>4</sup>R&D Center for Innovative Drug Discovery, University of Tsukuba, Japan

WS27-14-O/P

### **Bone marrow microenvironment for NK cell differentiation and localization**

○ Shinya Abe<sup>1</sup>, Akihiro Shimba<sup>1</sup>, Shizue Tani-ichi<sup>1</sup>, Takashi Nagasawa<sup>2,3,4</sup>, Koichi Ikuta<sup>1</sup>

<sup>1</sup>Laboratory of Immune Regulation, Institute for Life and Medical Sciences, Kyoto University, <sup>2</sup>Laboratory of Stem Cell Biology and Developmental Immunology, Graduate School of Frontier Biosciences, Osaka University, <sup>3</sup>Laboratory of Stem Cell Biology and Developmental Immunology, Graduate School of Medicine, Osaka University, <sup>4</sup>Laboratory of Stem Cell Biology and Developmental Immunology, WPI Immunology Frontier Research Center, Osaka University

## January 19

### **WS28 B cell (2)- fight against infectious diseases**

WS28-01-P

#### **The expression level of TRAF5 negatively impacts the TLR signaling**

○ Mitsuki Azuma<sup>1</sup>, Hiroaki Saito<sup>1</sup>, Tomomi Wakaizumi<sup>1</sup>, Koyo Iwatani<sup>1</sup>, Yusuke Ozawa<sup>1</sup>, Masashi Morita<sup>1</sup>, Mari Kuniishi-Hikosaka<sup>1</sup>, Naoto Ishii<sup>2</sup>, Takanori So<sup>1</sup>

<sup>1</sup>Laboratory of Molecular Cell Biology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan, <sup>2</sup>Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Japan

WS28-02-P

#### **Type I interferon determines the fate of TLR9-stimulated follicular B cells to plasma cell differentiation**

○ Ryota Higuchi<sup>1</sup>, Kaori Tanaka<sup>2</sup>, Yasuyuki Ohkawa<sup>2</sup>, Yoshihiro Baba<sup>1</sup>

<sup>1</sup>Division of Immunology and Genome Biology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan, <sup>2</sup>Division of Transcriptomics, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

WS28-03-P

#### **Essential function of EMC1(ER membrane complex subunit1) in Ca<sup>2+</sup> influx and biogenesis of chemokine receptors in B cell**

○ Kazuhiko Kawata<sup>1</sup>, Chie Kikutake<sup>2</sup>, Mikita Suyama<sup>2</sup>, Yoshihiro Baba<sup>1</sup>

<sup>1</sup>Medical Institute of Bioregulation, Division of Immunology and Genome Biology, Kyushu University, Japan, <sup>2</sup>Medical Institute of Bioregulation, Bioinformatics, Kyushu University, Japan

WS28-04-P

#### **B cell receptor signaling-mediated activation in lymphoid tissues is regulated by the long isoform of CEACAM1**

○ Tadahiko Inoue<sup>1</sup>, Mone Fushimi<sup>1,2</sup>, Naoya Tsugawa<sup>1</sup>, Daiki Yamada<sup>1</sup>, Taro Watabe<sup>1</sup>, Mamoru Watanabe<sup>1</sup>, Ryuichi Okamoto<sup>1</sup>, Takahiro Adachi<sup>3</sup>, Richard S. Blumberg<sup>4</sup>, Takashi Nagaishi<sup>1</sup>

<sup>1</sup>Department of Gastroenterology, Tokyo Medical and Dental University, <sup>2</sup>Department of Applied Chemistry, Tokyo University of Science, <sup>3</sup>Division of Precision Health, Medical Research Institute, Tokyo Medical and Dental University, <sup>4</sup>Gastroenterology Division, Brigham and Women's Hospital, Harvard Medical School

WS28-05-P

#### **LFA-1 is a novel sialic acid-mediated cis-ligand of CD22 that regulates B cell activation and adhesion**

○ Hashadi Nadeesha Walakulu Gamage<sup>1,2,3</sup>, Amin Alborzian Deh Sheikh<sup>2</sup>, Nobutoshi Ito<sup>1</sup>, Masatake Asano<sup>3</sup>, Takeshi Tsubata<sup>1,2,3</sup>

<sup>1</sup>Department of Structural Biology, Medical Research Institute, Tokyo Medical and Dental University, <sup>2</sup>Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University, <sup>3</sup>Department of Pathology, Nihon University School of Dentistry

WS28-06-P

#### **Identification and characterization of complexin 2-expressing innate-like B cells**

○ Emi Tsuru<sup>1</sup>, Hiroki Mogawa<sup>2</sup>, Atsuya Nobumoto<sup>2</sup>, Masaaki Mizobuchi<sup>2</sup>, Masayuki Tsuda<sup>1</sup>

<sup>1</sup>Institute for Laboratory Animal Research, Science Research Center, Kochi University, <sup>2</sup>Equipment Support Planning Office, Kochi University

WS28-07-O/P

#### **The contribution of IL-9 receptors on peritoneal B cells in T cell-independent immune responses**

○ Mari Tenno, Takumi Umezu, Kei Kato, Daisuke Kitamura

Toyko University of Science, Research Institute of Biological Sciences (RIBS)

WS28-08-P

### **CD20 promotes BCR/TLR9 dependent cell proliferation by enhancing TLR9/IgM association**

○ Yohei Kobayashi, Yuri Shimizu, Ryota Sato, Ryutaro Fukui, Takuma Shibata, Kensuke Miyake  
Division of Innate Immunity, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo

WS28-09-P

### **Arf1 regulates germinal center B cell differentiation in draining lymph nodes**

○ Yui Kotani<sup>1,2</sup>, Mami Sumiyoshi<sup>2</sup>, Madoka Ozawa<sup>3</sup>, Tomoya Katakai<sup>3</sup>, Satoshi Matsuda<sup>2</sup>  
<sup>1</sup>Dept. Vasc. Phys., NCVG., <sup>2</sup>Dept. Cell signaling, Ins. of Biomed. Sci., Kansai Medical Univ., <sup>3</sup>Dept. Immunol., Niigata Univ. Grad. Sch. of Med. and Dent. Sci.

WS28-10-O/P

### **Deciphering antibody-antigen specificity by clustering complementarity determining regions**

○ Dianita Susilo Saputri<sup>1</sup>, Hendra Saputra Ismanto<sup>1</sup>, Dendi Krisna Nugraha<sup>1</sup>, Zichang Xu<sup>2</sup>, Yasuhiko Horiguchi<sup>1,3</sup>, Shuhei Sakakibara<sup>2,4</sup>, Daron Michaelangelo Standley<sup>1,2,3</sup>  
<sup>1</sup>RIMD, Osaka Univ., <sup>2</sup>IFReC, Osaka Univ., <sup>3</sup>CiDER, Osaka Univ., <sup>4</sup>Jikei Univ. of Health Care Sciences

WS28-11-O/P

### **Multimodal analysis of COVID-19, Bacterial Sepsis and mRNA vaccination cohorts reveals SARS-CoV2 specific subpopulations of activated memory B-cells**

○ David G. Priest<sup>1</sup>, Janyerkye Tulyeu<sup>2</sup>, Jonas Sondergaard<sup>2</sup>, Yuki Togami<sup>3</sup>, Yumi Mitsuyama<sup>4</sup>, Shuhei Sakakibara<sup>5</sup>, Takeshi Ebihara<sup>3</sup>, Hisatake Matsumoto<sup>3</sup>, Hiroshi Ogura<sup>3</sup>, James B. Wing<sup>1,2</sup>  
<sup>1</sup>Laboratory of Human Single Cell Immunology, iFReC, Osaka University, <sup>2</sup>Human Single Cell Immunology Team, CiDER, Osaka University, <sup>3</sup>Department of Traumatology and Acute Critical Medicine, Osaka University Graduate School of Medicine, <sup>4</sup>Division of Trauma and Surgical Critical Care, Osaka General Medical Center, <sup>5</sup>Laboratory of Immune Regulation, iFReC, Osaka University

WS28-12-O/P

### **Sequential exposure to different SARS-CoV-2 antigens induces broadly neutralizing antibodies in mice and humans**

○ Hitoshi Azuma<sup>1</sup>, Yohei Kawano<sup>1</sup>, Akifumi Higashiura<sup>2</sup>, Yasuo Kitajima<sup>1</sup>, Shun Ohki<sup>1</sup>, Tomoharu Yasuda<sup>1</sup>  
<sup>1</sup>Department of Immunology, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, 734-8551, Japan, <sup>2</sup>Department of Virology, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, 734-8551, Japan

WS28-13-O/P

### **Longitudinal profiling of humoral immune memory elicited by inactivated rabies virus vaccine**

○ Mizuki Fujisawa<sup>1,2</sup>, Taishi Onodera<sup>2</sup>, Michihito Sasaki<sup>3,6</sup>, Yukari Itakura<sup>6</sup>, Daisuke Kuroda<sup>2</sup>, Kohei Yumoto<sup>2</sup>, Chidchamai Kewcharoenwong<sup>4</sup>, Arnone Nithichanon<sup>4</sup>, Ganjana Lertmemongkolchai<sup>4</sup>, Tadaki Suzuki<sup>5</sup>, Hirofumi Sawa<sup>6,7</sup>, Yoshimasa Takahashi<sup>2</sup>  
<sup>1</sup>Department of Life Science and Medical Bioscience, Graduate School of Advanced Science and Engineering, Waseda University (TWIns), Japan, <sup>2</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Japan, <sup>3</sup>Division of Molecular Pathobiology, International Institute for Zoonosis Control (IIZC), Hokkaido University, Japan, <sup>4</sup>Department of Medical Technology, Faculty of Associated Medical Sciences, Chiang Mai University, Thailand, <sup>5</sup>Department of Pathology, National Institute of Infectious Diseases, Japan, <sup>6</sup>Institute for Vaccine Research and Development, Hokkaido University, Japan, <sup>7</sup>One Health Research Center, Hokkaido University, Japan

WS28-14-O/P

### **Repeated exposure to SARS-CoV-2 Omicron antigens alleviates immunological imprinting and develops Omicron-specific B cells with phenotypically distinctive features**

○ Ryutaro Kotaki<sup>1</sup>, Saya Moriyama<sup>1</sup>, Yu Adachi<sup>1</sup>, Eita Sasaki<sup>1</sup>, Kota Ishino<sup>1</sup>, Miwa Morikawa<sup>2</sup>, Hiroaki Takei<sup>2</sup>, Hidenori Takahashi<sup>2</sup>, Masanori Isogawa<sup>1</sup>, Takayuki Matsumura<sup>1</sup>, Masaharu Shinkai<sup>2</sup>, Yoshimasa Takahashi<sup>1</sup>  
<sup>1</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, <sup>2</sup>Tokyo Shinagawa Hospital

WS28-15-O/P

### **In silico evolution of SARS-CoV-2 antibodies in humans increases the resilience against emerging Omicron subvariants**

○ Daisuke Kuroda, Saya Moriyama, Kohei Yumoto, Yu Adachi, Taishi Onodera, Yoshimasa Takahashi  
Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases

WS28-16-O/P

### **The epigenetic modifier BMI-1 drives both protective and pathogenic B cell responses to malaria**

○ Ke Wang<sup>1</sup>, Francis Claessens<sup>1</sup>, Kim Good-Jacobson<sup>2</sup>, Ian Cockburn<sup>1</sup>  
<sup>1</sup>Immunology and Infectious Disease Division, John Curtin School of Medical Research, the Australian National University, Canberra, ACT, Australia, <sup>2</sup>Department of Biochemistry and Molecular Biology, Monash University, Clayton, Victoria, Australia



# **Awards Ceremony and Lectures**



# Awards Ceremony and Lectures

1月17日(水) Wednesday, 17<sup>th</sup> January

各賞授賞式・受賞講演  
Awards Ceremony and Lectures

## 第26回日本免疫学会賞授賞式 / 26<sup>th</sup> JSI Award Ceremony

第26回日本免疫学会賞受賞者  
26<sup>th</sup> JSI Award Winner

「免疫チェックポイント分子による免疫制御機構の解明」

“Elucidation of the immuno-regulatory mechanisms by immune checkpoint molecules”

岡崎 拓 氏 (東京大学定量生命科学研究所 分子免疫学研究分野)

Dr. Taku Okazaki, The University of Tokyo

## 第10回日本免疫学会ヒト免疫研究賞授賞式 / 10<sup>th</sup> JSI Human Immunology Research Award Ceremony

第10回日本免疫学会ヒト免疫研究賞受賞者  
10<sup>th</sup> JSI Human Immunology Research Award Winner

「自己免疫疾患の免疫細胞サブセットの解析による疾患関連経路の解明」

“Parsing disease-related pathways through immune cell subset analysis in autoimmune diseases”

藤尾 圭志 氏 (東京大学大学院医学系研究科 内科学専攻 アレルギー・リウマチ学)

Dr. Keishi Fujio, The University of Tokyo

## 第10回日本免疫学会女性免疫研究者賞授賞式 / 10<sup>th</sup> JSI Women Immunologist Award Ceremony

第10回日本免疫学会女性免疫研究者賞受賞者  
10<sup>th</sup> JSI Women Immunologist Award Winner

「細胞老化随伴分泌現象関連因子による抗腫瘍免疫抑制機構の解明」

“The role and mechanism of senescence-associated secretory phenotype (SASP) in regulating anti-tumor immunity”

大谷 直子 氏 (大阪公立大学大学院医学研究科 分子生体医学講座 病態生理学)

Dr. Naoko Ohtani, Osaka Metropolitan University

※各種授賞式に引き続き、受賞講演を行います。

\*The above Award Lectures will be start following ceremonies.

## 第 18 回日本免疫学会研究奨励賞授賞式 / 18<sup>th</sup> JSI Young Investigator Award Ceremony

### 第 18 回日本免疫学会研究奨励賞受賞者（五十音順）

#### 18<sup>th</sup> JSI Young Investigator Award Winners

##### 「IgA を介した宿主と腸内細菌叢の相互作用に関する研究」

##### “Elucidation of the crosstalk between host and gut microbiota through IgA”

河本 新平 氏（大阪大学微生物病研究所 遺伝子生物学分野）

Dr. Shimpei Kawamoto, Osaka University

##### 「B 細胞由来の GABA は IL-10 陽性マクロファージを誘導することにより抗腫瘍免疫を抑制する」

##### “B cell-derived GABA elicits IL-10+ macrophages to limit anti-tumour immunity”

章 白浩 氏（理化学研究所 粘膜免疫研究チーム）

Dr. Baihao Zhang, RIKEN

##### 「感染や自己免疫における組織破壊機構の解明」

##### “Elucidation of the molecular mechanisms underlying tissue destruction associated with infectious and autoimmune diseases”

塚崎 雅之 氏（東京大学大学院医学系研究科 骨免疫学寄附講座）

Dr. Masayuki Tsukasaki, The University of Tokyo

##### 「感染症に対する生体防御の制御機構」

##### “Understanding the immunological defense against infectious diseases”

森山 彩野 氏（国立感染症研究所 治療薬・ワクチン開発研究センター第四室）

Dr. Saya Moriyama, National Institute of Infectious Diseases

##### 「RNA ウイルスの病原性発現機構と宿主抗ウイルス応答の解析」

##### “Immune Evasion Strategies of HIV-1 and SARS-CoV-2”

山岨 大智 氏（東京大学医科学研究所 システムウイルス学分野）

Dr. Daichi Yamasoba, The University of Tokyo

※研究奨励賞受賞者の研究課題については、1月18日（木）17時00分からポスター発表をいたします。

\*The above JSI Young Investigator Award, Winners' Posters Discussion will be started from 17:00 on 18th January.

## International Immunology Outstanding Merit Award Ceremony

### International Immunology Outstanding Merit Award for 2022 Winner

##### “Blocking EP4 downregulates tumor metabolism and synergizes with anti-PD-1 therapy to activate natural killer cells in lung adenocarcinoma model”

Dr. Miho Tokumasu, Okayama University



## 若手免疫学研究推進事業 / Outstanding Young Immunology Researcher Award Winners Introduction

2023 年若手免疫学研究推進事業受賞者（五十音順）

Outstanding Young Immunology Researcher Award 2023 Winners

「小腸パイエル板の濾胞性ヘルパー T 細胞分化誘導を促進する腸内細菌と食事成分の同定」

“Identification of gut bacteria and dietary components that induce the differentiation of follicular helper T cells in the Peyer’s patches”

高橋 大輔 氏（慶應義塾大学薬学部 生化学講座）

Dr. Daisuke Takahashi, Keio University

「Kras 変異肺がんにおける MHC class I 発現低下と浸潤免疫細胞の役割」

“The role of MHC-I expression and infiltrating cells in the immune responses against Kras-mediated lung cancer”

田中 努 氏（北海道大学大学院医学研究院 免疫学教室）

Dr. Tsutomu Tanaka, Hokkaido University

「パイエル板 SED 領域の網羅的免疫細胞解析」

“Comprehensive analysis of immune cells in sub-epithelial dome region”

中村 有孝 氏（和歌山県立医科大学・薬学部 病態生理学研究室）

Dr. Yutaka Nakamura, Wakayama Medical University

## 若手女性研究者研究支援事業 / Outstanding Young Women Researcher Award Winners Introduction

2023 年若手女性研究者研究支援事業受賞者（五十音順）

Outstanding Young Women Researcher Award 2023 Winners

「Notch シグナルによる腸管上皮間リンパ球の多様なサブセットの制御に関する研究」

“Research on the regulation of diverse subsets of intestinal intraepithelial lymphocytes by Notch signaling pathway”

石舟 智恵子 氏（徳島大学大学院医歯薬学研究部生体防御医学分野）

Dr. Chieko Ishifune, Tokushima University

「炎症性サイトカインを介した喘息重症化のメカニズムと血管炎発症制御機構の解明」

“Deciphering Inflammatory Cytokine-mediated Airway Remodeling and Vasculitis in Severe Asthma”

三木 春香 氏（筑波大学医学医療系 膠原病リウマチアレルギー内科学）

Dr. Haruka Miki, University of Tsukuba

## 「きぼう」プロジェクト 免疫学博士課程学生支援 採択者紹介 /

“Kibou Projects” Scholarship for Doctoral Students in Immunology Winners Introduction

2021 年度採択者（五十音順）

2021 Winners

「免疫受容体 CD300a の心筋梗塞における機能解析」

“The inhibitory immunoreceptor CD300a exacerbates heart injury and adverse remodeling after myocardial infarction and reperfusion in mice”

西山 奈菜子 氏（筑波大学）

Ms. Nanako Nishiyama, University of Tsukuba

**「IgA 腎症の原因となる抗メサンギウム IgA 抗体の産生機構の解明」**

**“A mechanism for anti-mesangium IgA production in an IgA nephropathy mouse model”**

東山 瑞希 氏 (東京理科大学)

Ms. Mizuki Higashiyama, Tokyo University of Science

**「エフェクター型制御性 T 細胞の選択的増加による組織修復促進機構の解明」**

**“Exploring the potential of selective expansion of effector regulatory T cells to promote tissue repair”**

松浦 宏大 氏 (東京大学)

Mr. Kohta Matsuura, The University of Tokyo

**「食事因子によるパイエル板における濾胞性ヘルパー T 細胞誘導機構の解明」**

**“Commensal microorganisms cooperatively promote polyreactive S-IgA production by inducing follicular helper T cells in Peyer’s patch”**

室井 きさら 氏 (慶應義塾大学)

Ms. Kisara Muroi, Keio University

**「SARS-CoV-2 抗原特異的 public TCR の同定と認識機構の解明」**

**“Structural analysis of SARS-CoV-2-specific public TCR”**

森 正太郎 氏 (大阪大学)

Mr. Shotaro Mori, Osaka University

**「CRISPR スクリーニングを用いたマクロファージの代謝調節機構の包括的解明」**

**“The landscape of metabolic reprogramming in macrophages analyzed by genome-wide CRISPR screening”**

保倉 祥太 氏 (京都大学)

Mr. Shota Yasukura, Kyoto University

**2022 年度採択者 (五十音順)**

**2022 Winners**

**「抑制性免疫補助受容体による T 細胞活性化抑制機構の解析」**

**“Molecular mechanisms of T cell suppression by inhibitory co-receptors”**

阿比留 龍喜 氏 (東京大学)

Mr. Ryuki Abiru, The University of Tokyo

**「乳汁 IgA の多型性がもたらす母子移行型の免疫ダイナミクス」**

**“Dynamics of immune system transferred from mother to child by breastfeeding”**

伊東 加織 氏 (東北大学)

Ms. Kaori Ito, Tohoku University

**「樹状細胞の分化並びに遺伝子発現を制御する転写調節因子の機能と免疫関連疾患への寄与」**

**“The roles of transcription factors in dendritic cell-mediated immune response”**

伊藤 直人 氏 (東京理科大学)

Mr. Naoto Ito, Tokyo University of Science

**「硫酸化糖鎖の粘膜バリア機構における生理的意義および病態との関連」**

**“Roles of sulfated mucin in the intestinal homeostasis”**

岡本 翔太 氏 (大阪大学)

Mr. Shota Okamoto, Osaka University

**「気道 M 細胞の分化機構と呼吸器疾患における機能の解明」**

**“Differentiation and function of iBALT M cells induced by influenza infection”**

河合 真悟 氏 (慶應義塾大学)

Mr. Shingo Kawai, Keio University

**「LGP2:MDA5:RNA 複合体の構造可視化による自然免疫応答の理解」**

**“Self vs. non-self RNA discrimination in immune response by disease-associated MDA5 mutant”**

栗原 新奈 氏 (東京大学)

Ms. Nina Kurihara, The University of Tokyo

**「Memory-phenotype CD4+ T 細胞による腸管虚血再灌流障害の増悪機構の解明」**

**“Memory-phenotype CD4+ T lymphocytes rapidly accumulate in ischemic organs and exacerbate tissue injury in an innate manner”**

佐藤 皓祐 氏 (東北大学)

Mr. Kosuke Sato, Tohoku University

**「ループス腎炎を誘導するパトローリング単球の解析」**

**“Analysis of patrolling monocytes that drive lupus nephritis”**

田中 麗華 氏 (東京大学)

Ms. Reika Tanaka, The University of Tokyo

**「Irf8 エンハンサー群の動的制御機構とその生物学的意義の解明」**

**“Physical and functional interaction among Irf8 enhancers during dendritic cell differentiation”**

山崎 貴弥 氏 (横浜市立大学)

Mr. Takaya Yamasaki, Yokohama City University

**「樹状細胞のシングルセル解析を駆使したメモリー CD8 +T 細胞 サブセットの選択的誘導機構の解明」**

**“Selective induction of memory CD8+ T cell subsets depends on co-stimulatory signals from dendritic cells”**

亀井 萌百 氏 (近畿大学)

Ms. Momo Kamei, Kindai University

**2023 年度採択者 (五十音順)**

**2023 Winners**

**「関節リウマチ炎症滑膜内における B 細胞応答の解明」**

**“Investigation of B cell responses in the synovium of rheumatoid arthritis”**

赤嶺 綸子 氏 (京都大学)

Ms. Rinko Akamine, Kyoto University

**「新生児期の免疫異常と皮膚 dysbiosis が引き起こすアトピー性皮膚炎 “発症起点” の解明」**

**“Elucidating the mechanism of atopic dermatitis triggered by neonatal skin dysbiosis and immune imbalance”**

伊藤 朋香 氏 (大阪大学)

Ms. Tomoka Ito, Osaka University

**「脳神経細胞障害からの回復過程における内因性オピオイドの役割」**

**“Role of endogenous opioids in the recovery process from brain neuronal damage”**

川副 明生 氏 (九州大学)

Ms. Mio Kawazoe, Kyushu University

**「新規免疫制御因子の遺伝子変異を伴う先天性免疫異常症の病態解明」**

**“Elucidating the pathogenesis of inborn errors of immunity associated with genetic mutations of a novel immunoregulatory molecule”**

喜枝 美月 氏 (大阪大学)

Ms. Mizuki Kishi, Osaka University

**「可溶性 CD155 の除去によるがん免疫抑制機構の解明」**

**“Elucidation of the role of soluble CD155 in tumor immunity”**

木下 翔太 氏 (筑波大学)

Mr. Shota Kinoshita, University of Tsukuba

**「抗生物質寛容型細菌の免疫逃避機構の解明」**

**“Strategies of antibiotic tolerant bacteria for overcoming host immunity”**

木村 宇輝 氏 (鳥取大学)

Mr. Uki Kimura, Tottori University

**「MHC クラス II による新規腸管免疫制御機構解明」**

**“Regulation of immune response in intestine by MHC class II molecules”**

千菊 智也 氏 (東京大学)

Mr. Tomoya Sengiku, The University of Tokyo

**「自己炎症性疾患の特徴をもつ免疫介在性疾患の網羅的解析」**

**“Comprehensive analysis of immune-mediated diseases with characteristics of autoinflammatory disorders”**

高澤 郁夫 氏 (東京大学)

Mr. Ikuo Takazawa, The University of Tokyo

**「ストレス造血における造血幹細胞における運命制御のメカニズムの解明」**

**“Elucidation of mechanisms that regulate hematopoietic stem cell fate decisions under stress hematopoiesis”**

虎谷 和則 氏 (京都大学)

Mr. Kazunori Toratani, Kyoto University

**「新規治療標的探索に資する腫瘍特異的 Tsg1 発現マクロファージの同定とその機能解析」**

**“Identification and functional analysis of tumor-specific macrophage subsets for discovery of novel therapeutic targets”**

倉谷 歩見 氏 (大阪大学)

Ms. Ayumi Kuratani, Osaka University

**「細胞傷害性 CD4 T 細胞による腫瘍の免疫監視」**

**“Immune surveillance of tumor cells mediated by cytotoxic CD4+ T cells”**

田村 ベリース結実 氏 (広島大学)

Ms. Yumi Tamura, Hiroshima University

※ 「きぼう」プロジェクト免疫学博士課程学生支援の採択者の研究課題については、1月18日(木)17時00分からポスター発表をいたします。

\* The above “Kibou Projects” Scholarship for Doctoral Students in Immunology, Winners’ Poster Discussion will be started from 17:00 on 18th January.



# Technical Seminar





# Technical Seminar

11:45 ~ 12:45, Wednesday, January 17

## **T01 Technical Seminar 01** Room A: Convention Hall A

Chairperson: Hiroshi Kiyono (Future Medicine Education and Research Organization, Chiba University / Chiba University Hospital)

### **T01 Unleashing Potential in Single Cell Analysis with the BD FACSymphony™ A5 SE Cell Analyzer in Hematopoietic Research**

Masanori Miyanishi Kobe University

**Nippon Becton Dickinson Company, Ltd.**

11:45 ~ 12:45, Wednesday, January 17

## **T02 Technical Seminar 02** Room D: 201

Chairperson: Masaki Asano (Funakoshi Co., Ltd.)

### **T02 AI-based platform LIGHTHOUSE revolutionizes drug discovery**

Keiichi Nakayama TMDU Advanced Research Institute, Tokyo Medical and Dental University / Q Innovation Co., Ltd.

**Funakoshi Co., Ltd.**

11:45 ~ 12:45, Wednesday, January 17

## **T03 Technical Seminar 03** Room E: 301

Chairperson: Satoshi Yamazaki (Division of Cell Regulation, Center of Experimental Medicine and Systems Biology, The Institute of Medical Science, The University of Tokyo)

### **T03 Role of Activated Bone Marrow Stem/Stromal Cells in Hematopoiesis**

Yo Mabuchi Fujita Health University / Juntendo University

**TOMY DIGITAL BIOLOGY CO., LTD.**

11:45 ~ 12:45, Wednesday, January 17

## **T04 Technical Seminar 04** Room F: 304

Chairperson: Takashi Sekiguchi (Life Technologies Japan Ltd., Thermo Fisher Scientific)

### **T04 Antiretroviral host factor sequesters viral RNA and protein in biological condensate**

Shige H. Yoshimura Laboratory of Plasma Membrane and Nuclear Signaling, Graduate School of Biostudies, Kyoto University

**Thermo Fisher Scientific**

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11:45 ~ 12:45, Thursday, January 18

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**T05 Technical Seminar 05** Room B: Convention Hall B

Chairperson: Fumihiko Ishikawa (RIKEN Center for Integrative Medical Science)

**T05 Application of single cell sequencing analysis in statistical genetics**

Yukinori Okada Department of Genome Informatics, Graduate School of Medicine, the University of Tokyo / Department of Statistical Genetics, Osaka University Graduate School of Medicine / Laboratory for Systems Genetics, RIKEN Center for Integrative Medical Sciences

**SCRUM Inc.**

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11:45 ~ 12:45, Thursday, January 18

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**T06 Technical Seminar 06** Room C: International Conference Room

Chairperson: Tomoya Katakai (Department of Immunology, Niigata University, Graduated School of Medical and Dental Sciences)

**T06 Elucidating regulatory mechanisms of T cell activation by inhibitory co-receptors**

Taku Okazaki Institute for Quantitative Biosciences, The University of Tokyo

**Beckman Coulter K.K**

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11:45 ~ 12:45, Thursday, January 18

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**T07 Technical Seminar 07** Room D: 201

Chairperson: Hideki Ueno (Department of Immunology, Graduate School of Medicine, Kyoto University)

**T07 A novel image flow cytometry for analyzing cell phenotypes during cell-cell interactions**

Hiroyoshi Nishikawa Division of Cancer Immunology, Research Institute, National Cancer Center / Department of Immunology, Nagoya University Graduate School of Medicine

**Nippon Becton Dickinson Company, Ltd.**

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11:45 ~ 12:45, Friday, January 19

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**T08 Technical Seminar 08** Room D: 201

Chairperson: Jin Akagi (Cytek Japan Corporation Technical Application Support)

**T08 Developing a 40-marker Cytek Aurora panel to study changes in exhausted T cells in the tumor microenvironment**

Samantha Ho Merck Sharp & Dohme (MSD), Singapore

**Cytek Japan Corporation**

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11:45 ~ 12:45, Friday, January 19

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**T09 Technical Seminar 09** Room F: 304

Chairperson: Tomoko Mimura (COSMO BIO CO., LTD.)

**T09 Immunotherapy analysis with FluoroSpot: Higher sensitivity, higher precision**

Jens Gertow Mabtech AB

**COSMO BIO CO., LTD.**

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11:45 ~ 12:45, Friday, January 19

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**T10 Technical Seminar 10** Room H: 303

Chairperson: Sho Yamasaki (Molecular Immunology, Research Institute for Microbial Diseases / Immunology Frontier Research Center, Osaka University)

**T10 Targeting B cell migration in autoimmunity**

Kazuhiro Suzuki Immunology Frontier Research Center, Osaka University, Japan / Research Institute for Microbial Diseases, Osaka University, Japan / Center for Infectious Disease Education and Research, Osaka University, Japan

**Standard BioTools K.K.**



# **Clinical Seminar**



# Clinical Seminar

11:45 ~ 12:45, Wednesday, January 17

## **C01 Clinical Seminar 01** Room B: Convention Hall B

Chairperson: Hajime Karasuyama (Inflammation, Infection and Immunity Laboratory, Tokyo Medical and Dental University Advanced Research Institute)

### **C01 The interleukin-4 receptor system: origin, functions and distribution**

Lukas E. M. Heeb University Hospital Zurich

**Sanofi K.K.**

11:45 ~ 12:45, Wednesday, January 17

## **C02 Clinical Seminar 02** Room C: International Conference Room

Chairperson: Kenji Kabashima (Department of Dermatology, Graduate School of Medicine and Faculty of Medicine Kyoto University)

### **C02 The Role of Peripheral Nerves in Atopic Dermatitis and the Effect of Upadacitinib**

Atsushi Otsuka Kindai University Hospital

**AbbVie GK**

11:45 ~ 12:45, Wednesday, January 17

## **C03 Clinical Seminar 03** Room G: 302

Chairperson: Ken Takeuchi (Gastroenterological Medicine, Tsujinaka Hospital)

### **C03 Basic treatment strategies for ulcerative colitis and current status of extraintestinal manifestations**

Jun Kato Chiba University Hospital

**Mitsubishi Tanabe Pharma Corporation / Janssen Pharmaceutical K.K.**

11:45 ~ 12:45, Wednesday, January 17

## **C04 Clinical Seminar 04** Room H: 303

Chairperson: Kaori Sakuishi (Department of Neurology, Teikyo University Chiba Medical Center)

### **C04 Involvement of IL-6 in the pathogenesis of neuroimmunological diseases and the importance of therapeutic strategies for IL-6 inhibition**

Akiyuki Uzawa Department of Neurology, Graduate School of Medicine, Chiba University

**CHUGAI PHARMACEUTICAL CO., LTD.**

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11:45 ~ 12:45, Thursday, January 18

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**C05 Clinical Seminar 05** Room A: Convention Hall A

Chairperson: Atsushi Kumanogoh (Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University)

**C05 Decoding type I Interferon signals in Systemic Lupus Erythematosus**

Keishi Fujio Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo

**AstraZeneca K.K.**

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11:45 ~ 12:45, Thursday, January 18

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**C06 Clinical Seminar 06** Room E: 301

Chairperson: Sho Yamasaki (Molecular Immunology, Research Institute for Microbial Diseases / Immunology Frontier Research Center, Osaka University)

**C06 Current Status and Challenges of Respiratory Infections Including COVID-19 -From the perspective of specialist -**

Makoto Ishii Department of Respiratory Medicine, Nagoya University Graduate School of Medicine

**Moderna Japan Co., Ltd**

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11:45 ~ 12:45, Thursday, January 18

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**C07 Clinical Seminar 07** Room F: 304

Chairperson: Nobuhiko Kamada (Laboratory of Microbiology and Immunology, WPI Immunology Frontier Research Center, Osaka University / Division of Gastroenterology and Hepatology, University of Michigan Medical School)

**C07 Regulation of intestinal homeostasis: host-microbiota interaction**

Kiyoshi Takeda Immunology Frontier Research Center, Osaka University / Graduate School of Medicine, Osaka university

**Otsuka Pharmaceutical Co., Ltd.**

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11:45 ~ 12:45, Thursday, January 18

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**C08 Clinical Seminar 08** Room G: 302

Chairperson: Masaki Hiraguri (Rheumatology and Allergology Medicine, Japanese Red Cross Narita Hospital)

**C08 New era for management of eosinophilic granulomatosis with polyangiitis: mepolizumab, a humanized monoclonal antibody for human IL-5, in real-world clinical practice**

Tomohiro Tamachi Department of Allergy and Rheumatology, Chiba Rosai Hospital

**GlaxoSmithKline K.K.**

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11:45 ~ 12:45, Thursday, January 18

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**C09 Clinical Seminar 09** Room H: 303

Chairperson: Takuji Suzuki (Department of Respiriology, Graduate School of Medicine, Chiba University)

**C09 Effects of cancer intrinsic signals and microenvironmental factors on immune checkpoint inhibitor response**

Shogo Kumagai Division of Cancer Immunology, Research Institute / Exploratory Oncology Research & Clinical Trial Center (EPOC), National Cancer Center

**MSD K.K.**

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11:45 ~ 12:45, Friday, January 19

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**C10 Clinical Seminar 10** Room A: Convention Hall A

Chairperson: Akihiko Kawana (Division of Infectious Diseases and Pulmonary Medicine, National Defense Medical College)

**C10 Ensitrelvir, an anti-SARS-CoV-2 drug developed in Japan**

Takayuki Miyara Department of Infection Control and Prevention, Kobe University Hospital

**Shionogi & Co.,Ltd.**

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11:45 ~ 12:45, Friday, January 19

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**C11 Clinical Seminar 11** Room C: International Conference Room

Chairperson: Kunihiro Yamaoka (Kitasato University School of Medicine)

**C11-01 Individualized understanding of the immunological landscape of rheumatoid arthritis**

Hirofumi Shoda Department of Allergy and Rheumatology, Graduated School of Medicine, the University of Tokyo

**C11-02 Significance of T-cell targeted therapy in the treatment of rheumatoid arthritis and the potential of JAK inhibitors**

Tomohiro Koga Department of Immunology and Rheumatology, Division of Advanced Preventive Medical Sciences, Nagasaki University Graduate School

**Pfizer Japan Inc.**

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11:45 ~ 12:45, Friday, January 19

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**C12 Clinical Seminar 12** Room E: 301

Chairperson: Kei Ikeda (Department of Rheumatology, Dokkyo Medical University)

**C12 The 3BP2 degradation pathway in the immune system**

Yoshinori Matsumoto Department of Nephrology, Rheumatology, Endocrinology and Metabolism, Okayama University, Japan / Princess Margaret Cancer Center, University of Toronto, Canada

**Asahikasei Pharma**

**C13 Clinical Seminar 13** Room G: 302

Chairperson: Koutaro Yokote (Director General of Chiba University Hospital)

**C13-01 Age-related microinflammation, cancer, and immunity**

Makoto Nakanishi The institute of Medical Science, The University of Tokyo

**C13-02 Registry for Neuroimmunologic Diseases: Focus on Chronic Inflammatory Demyelinating Polyneuropathy**

Sonoko Misawa Department of Neurology, Chiba Graduate School of Medicine

**Daiichi Sankyo Company, Limited**

# **Afternoon Seminar**



# Afternoon Seminar

13:00 ~ 14:00, Wednesday, January 17

## A01 Afternoon Seminar 01 Room B: Convention Hall B

### Outstanding Young Women Researcher Award

Chairpersons: Tomohiro Kurosaki (WPI Immunology Frontier Research Center, Osaka University)  
Toshinori Nakayama (Chiba University)

#### A01-01 Investigation of the role of B-cell-intrinsic TBK1 for germinal center formation

Michelle Sue Jann Lee Division of Malaria Immunology, The Institute of Medical Science, The University of Tokyo / International Vaccine Design Center, The Institute of Medical Science, The University of Tokyo

#### A01-02 Early T cell progenitor-derived antigen-presenting cells contribute to establishing self-tolerance

Haruka Wada Division of Immunobiology, Institute for Genetic Medicine, Hokkaido University

**TOMY DIGITAL BIOLOGY CO., LTD.**

13:00 ~ 14:00, Thursday, January 18

## A02 Afternoon Seminar 02 Room B: Convention Hall B

### Outstanding Young Immunology Researcher Award

Chairpersons: Tomohiro Kurosaki (WPI Immunology Frontier Research Center, Osaka University)  
Toshinori Nakayama (Chiba University)

#### A02-01 Identification of fibroblasts that initiate inducible bronchus-associated lymphoid tissue (iBALT) formation during influenza virus infection

Shinichi Koizumi Kyushu University

#### A02-02 The analysis of effects of commensal bacteria and immune system on brain development

Michio Miyajima JST PRESTO / Department of Anatomy Keio University School of Medicine

#### A02-03 Analysis of clonal diversity of murine T follicular helper cells during influenza virus infection

Daiki Mori Regulation of Host Defense Team, Center for Infectious Disease Education and Research, Osaka University

**Nippon Becton Dickinson Company Ltd.**



# Evening Seminar





# Evening Seminar

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18:40 ~ 19:40, Wednesday, January 17

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**E01 Evening Seminar 01** Room D: 201

Chairperson: Takuji Suzuki (Department of Respiriology, Graduate School of Medicine, Chiba University)

**E01 Lung stem cell biology and disease**

Mitsuru Morimoto Laboratory for Lung Development and Regeneration, RIKEN Center for Biosystems Dynamics Research

**TOMY DIGITAL BIOLOGY CO., LTD.**



# 日本免疫学会からのお知らせ



## 特定非営利活動法人日本免疫学会からのお知らせ

### 1. 学会のホームページアドレス

日本免疫学会から会員の皆様へのお知らせは、ホームページを通じて行っておりますので、随時ご覧ください。

ホームページアドレス：<https://www.jsi-men-eki.org/>

### 2. 会員への電子メールによる情報配信について

日本免疫学会では、電子メールにて、会員の皆様への緊急なお知らせやお願いを配信しております。未だメールアドレスを会員データベースに登録されていない方は、至急会員専用ページ ([https://www.men-eki.org/meneki\\_web/jsp/welcome.html](https://www.men-eki.org/meneki_web/jsp/welcome.html)) よりご登録いただくか、学会事務局 ([info@meneki.or.jp](mailto:info@meneki.or.jp)) へご連絡ください。

### 3. 会費納入について

本学会は、10月1日より、新年度（2024年度<2023年10月1日～2024年9月30日>）となりました。新年度の会費は、学会事務局より送付いたしました「年会費用振替用紙」にてお振込みいただくか、会員専用ページ ([https://www.men-eki.org/meneki\\_web/jsp/welcome.html](https://www.men-eki.org/meneki_web/jsp/welcome.html)) より簡便なクレジットカードによる会費決済をおこなえますので、より多くの会員の皆様にご利用をお願い申し上げます。クレジットカード決済の際に、年会費と併せて寄附金を納付いただける場合に関り、クレジットカード手数料は無料（全額学会負担）となります。

新規入会の方は、学会ホームページ「入会申込」のボタンより、オンラインで手続きをお願いいたします。

### 4. 2024年度 特定非営利活動法人日本免疫学会役員（各五十音順）

理事長：黒崎知博 (2024年12月31日迄)

理事：岡田峰陽、椛島健治、河本 宏、熊ノ郷 淳、渋谷 彰、高柳 広、竹田 潔、三宅幸子、山崎 晶  
(2024年12月31日迄)

荒瀬 尚、石井 健、樗木俊聡、大野博司、渋谷和子、新藏礼子、竹内 理  
(2026年12月31日迄)

監事：岩倉洋一郎、小安重夫 (2024年12月31日迄)

### 5. 日本免疫学会へのご寄附のお願い

ご存じのとおり、本学会は、2005年度のNPO法人化を機に、社会貢献活動にも積極的に取り組み、「免疫ふしぎ未来」をはじめとして、一般社会に対して、より広く免疫学の魅力と重要性をアピールする活動も広げ、免疫研究への一層の理解と、啓蒙に努めております。

その一方で、会員数減等による実質的な資産の減少が著しく、これまで、各種事業の見直し等、学会として対応策を講じてまいりましたが、年々、健全な学会運営をとりまく環境は厳しくなっております。

皆様のご協力のお蔭で、本学会は2016年11月7日をもちまして、本認定特定非営利活動法人として認定されましたが、本認定期間においても、より多くの方々（毎年100名以上）からの寄附があることが認定継続の要件となっております。

つきましては、今後、社会へのより一層の貢献のために、各種事業による免疫学の普及啓発事業等の活動をさらに発展させ、本学会の財政健全化のためにも、より多くの皆様からの寄附を募集いたします。

寄附のお申し込みの詳細につきましては、本学会ホームページ、ご寄附のお願い (<https://www.jsi-men-eki.org/kifu/>) をご覧ください。クレジットカードでのお支払いも可能です。また、会員専用ページ ([https://www.men-eki.org/meneki\\_web/jsp/welcome.html](https://www.men-eki.org/meneki_web/jsp/welcome.html)) より、年会費と併せて寄附金を納付いただければ、クレジットカード決済手数料は無料（全額学会負担）となりますので、本学会活動にご理解とご賛同をいただき、ご支援・ご協力をいただければ幸いです。

なお、本学会の主たる目的である業務に係る寄附金は、個人・法人ともに税法上の優遇措置が与えられます。ご不明な点等ありましたら、下記の学会事務局までお問い合わせください。

### 6. 特定非営利活動法人 日本免疫学会 事務局

〒101-0024 東京都千代田区和泉町1-4-2 KUMAKIビル2F

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Harada, Jotaro	WS08-23-P		WS12-06-P	Hirayama, Masatoshi		Hoshino, Katsuaki	WS04-01-O/P
Harada, Junji	S14-05	Hattori, Nobutaka	WS26-10-O/P		WS13-15-P	Hoshino, Tomohiro	WS14-12-O/P
	○WS24-11-O/P	Hattori-Muroi, Kisara	S03-04	Hirayasu, Kouyuki	○WS26-14-P	Hoshino, Yasunobu	WS26-10-O/P
Harada, Kosuke	WS04-26-P	Hayakawa, Kunihiro		Hiroki, Shuya	○WS04-13-P	Hoshino, Yoshihiko	WS24-23-P
Harada, Mamoru	WS15-15-P		○WS02-08-P	Hiomura, Keiju	WS07-08-P	Hosokawa, Hiroyuki	WS24-02-P
Harada, Michishige		Hayakawa, Yoshihiro	WS12-02-P	Hirose, Kenzo	WS19-05-O/P		WS24-04-P
	○WS09-04-P		WS20-03-P	Hirota, Keiji	○S06-01	Hosoki, Haruka	WS03-09-P
Harada, Yasuyo	○WS14-09-O/P	Hayama, Masaki	WS21-11-O/P		WS12-11-P		○WS18-13-P
Harada, Yohsuke	WS05-14-P	Hayami, Shinya	WS22-22-P		WS12-15-O/P	Hosomi, Koji	WS11-13-P
	WS10-19-P	Hayashi, Fuzuki	WS03-18-P		WS18-04-O/P		WS19-17-O/P
	WS19-23-P		WS05-08-P	Hirota, Takamoto	WS26-09-O/P	Hosoya, Akinori	WS25-21-P
Harada, Yoshihiro	○WS17-20-P		WS07-10-P	Hiroyuki, Hiratsuka		Hosoya, Tadashi	WS09-10-P
	WS17-23-O/P		○WS14-19-P		○WS08-06-O/P	Hosoya-Nakayama, Kaori	
	WS17-25-P	Hayashi, Rinako	○WS24-05-P	Hisaeda, Hajime	WS01-24-P		WS09-18-P
	WS17-27-P	Hayashi, Tae	WS15-02-O/P		WS01-25-P	Hozumi, Katsuko	WS24-05-P
Harashima, Hideyoshi		Hayashi, Tomoya	WS17-06-P	Hisatome, Ichiro	WS04-15-P	Hozumi, Katsuto	WS24-02-P
	WS15-27-P		WS26-09-O/P	Hishiya, Takahisa	WS09-11-P		WS24-03-O/P
Harata, Gaku	WS19-20-P	Hayashizaki, Koji	○WS20-05-O/P		WS14-16-O/P		WS24-04-P
Harigae, Hideo	WS08-25-P	Hayee, Abdul	○WS08-09-O/P		WS17-08-O/P		WS25-17-P
Harimoto, Kozo	WS23-21-P	He, Danyang	WS04-08-O/P		○WS17-09-P	Hsu, Chenwei	○WS16-02-O/P
Harusato, Akihito	○WS19-10-P	He, Ka	○WS20-03-P	Hitomi, Kiyotaka	WS11-03-O/P	Hsu, Ping-Ning	WS23-02-P
Haruta, Mogami	WS11-04-P	He, Zihan	WS21-03-P	Hitomi, Yuki	○WS26-12-O/P	Hsueh, Pei-Chun	WS17-17-P
Hase, Koji	○S03-04	Heeb, Lukas E. M.	○C01	Ho, Ping-Chih	WS17-17-P	Hu, Jing	WS15-24-P
	WS19-07-O/P	Heissmeyer, Vigo	WS10-14-O/P	Ho, Samantha	○T08	Hu, Xin	○WS13-04-O/P
	WS22-20-P	Held, Werner	WS17-17-P	Hoagland, Daisy	S07-05	Huang, Danqi	○WS06-26-P
	WS25-08-O/P	Hidalgo, Andres	○S05-03	Hojo, Arisa	WS24-21-P	Huang, Shouxiong	S13-05
Hasebe, Manaka	WS04-02-O/P	Higasa, Koichiro	WS10-07-P	Hojyo, Shintaro	○OT10	Huang, Szu-Wei	WS17-07-P
Hasebe, Rie	○S10-04		WS21-04-O/P		WS06-24-O/P	Hutloff, Andreas	S15-02
	WS23-08-O/P	Higashiura, Akifumi	WS28-12-O/P		WS17-11-P	Huynh, Hung Hiep	○WS03-02-O/P
	WS25-23-P	Higashiyama, Mizuki			○WS23-08-O/P		
Hasegawa, Gen	WS26-14-P		○WS23-18-O/P	Hon, Sharon Sze-Man			
Hasegawa, Hideaki	WS06-28-P	Higuchi, Lilika	WS04-23-P		WS26-08-P		





Jiravejchakul, Natnicha	WS01-09-O/P	Kamijo, Seiji	○WS05-03-P	Kato, Maya	WS06-17-P	WS28-12-O/P	
J-Khemlani, Adrina Hema	WS16-12-P	Kamikawa, Takayuki	WS15-07-O/P	Kato, Takanobu	WS01-06-P	Kawaoka, Yoshihiro	WS09-01-O/P
Joachim, Luginbuehl	WS27-05-O/P	Kamimura, Daisuke	WS06-24-O/P	Kato, Takashi	WS03-12-O/P	Kawasaki, Narumi	○WS04-12-P
Jounai, Nao	WS09-01-O/P	Kamioka, Mariko	○WS01-12-O/P	Kato, Takuya	WS15-23-P	Kawasaki, Riyo	○WS05-14-P
Ju, Xiaoman	WS15-24-P	Kamioka, Yuji	WS10-07-P	Kato, Tamotsu	WS01-24-P	Kawasaki, Takumi	WS18-12-P
Juan, Tiffany	WS22-05-O/P	Kamioka, Yuji	WS10-07-P		WS23-03-O/P		○WS18-15-P
Jumnainsong, Amonrat	WS01-18-P		WS10-08-O/P	Kato, Tomoyuki	WS22-19-P	Kawashima, Hina	WS03-18-P
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	○WS10-15-P	Kamiya, Mari	WS10-22-P		WS09-15-P		WS07-10-P
June, Carl	○S11-01	Kamiyama, Naganori	WS09-10-P	Kato, Kazutaka	WS25-07-O/P		WS14-19-P
			WS06-21-P	Katsukura, Yuka	WS04-15-P	Kawashima, Hiroto	
			WS06-26-P	Katsumata, Toru	WS15-02-O/P		○WS05-20-P
		Kan, Lea Ling-Yu	WS06-26-P	Katsumata, Yoshio	WS25-12-P		WS10-21-P
		Kanai, Maho	○WS03-01-O/P	Katsumoto, Atsuko	WS23-07-O/P		WS13-13-P
		Kanai, Takanori	S10-01	Kawabe, Takeshi	WS04-22-P	Kawasumi, Masami	WS23-03-O/P
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		Kanaseki, Takayuki	WS22-10-P		WS17-02-P	Kawata, Kazuhiko	○WS28-03-P
		Kanayama, Masashi			WS22-17-P	Kawazoe, Mio	WS17-20-P
			○WS04-07-O/P		WS23-05-O/P		WS17-23-O/P
Kabashima, Kenji	○S09-05		WS12-12-P	Kawabe, Tsutomu	WS03-18-P		WS17-25-P
	WS13-03-O/P	Kanda, Hiroko	○WS22-27-P		WS05-08-P		WS17-27-P
	WS25-01-O/P	Kanda, Yasuhiro	○WS22-27-P		WS07-10-P	Kawazoe, Naoki	WS18-08-P
	WS25-04-O/P	Kaneko, Shin	WS08-02-O/P		WS14-19-P	Kayama, Hisako	○S03-03
	WS26-15-P		WS08-03-O/P				WS06-07-O/P
Kabata, Hiroki	WS20-12-O/P	Kaneko, Takeshi	WS17-10-P	Kawagoe, Suzu	○WS13-06-O/P		WS25-05-O/P
Kadoki, Motohiko	WS06-29-P	Kaneko, Tatsuya	○WS05-12-P	Kawaguchi, Mariko	WS06-01-P		WS25-22-P
	○WS19-14-O/P	Kaneko, Yoriaki	WS07-08-P		WS06-02-P		WS15-06-O/P
Kadota, Hiroshi	WS08-04-P	Kaneko, Yuko	WS02-22-O/P	Kawahara, Shoya	○WS10-04-P	Kayukawa, Yoko	WS15-06-O/P
Kadowaki, Atsushi	○WS23-01-O/P	Kanemaru, Kaori	WS05-14-P	Kawahata, Hinami	○WS05-17-O/P	Kearney, Bradley M	WS04-11-P
Kadowaki, Norimitsu	WS15-05-O/P	Kani, Koudai	○WS19-11-P	Kawahito, Yuhki	WS02-20-P		○WS13-09-P
		Kanno, Atsuo	WS02-10-P	Kawahito, Yuki	WS02-18-P		WS16-08-O/P
Kaewkhunjob, Erngsiri	WS16-21-P	Kanno, Masamoto	WS24-18-P		○WS02-19-P		WS18-18-P
	WS12-06-P	Kanno, Takayuki	WS09-10-P	Kawai, Manabu	WS22-22-P	Keawvilai, Pornlapat	
Kagami, Shin-Ichiro	WS12-06-P	Kanno, Toshio	○WS09-23-O/P	Kawai, Shingo	○WS19-07-O/P		○WS22-26-P
Kagami-Katsuyama, Hiroyo	WS26-07-P		WS20-05-O/P	Kawai, Taro	WS04-13-P	Kedzierska, Katherine	
	WS06-21-P	Kano, Norisuke	○WS06-20-O/P		WS06-20-O/P		○S01-03
Kagoshima, Yomei	WS08-05-O/P	Kanto, Tatsuya	WS01-06-P		WS18-12-P		WS09-24-P
Kagoya, Yuki	WS26-19-P	Kanuka, Hirotaka	WS01-10-P		WS18-15-P		WS20-02-O/P
Kaieda, Yuta	WS03-12-O/P	Karasuyama, Hajime		Kawai, Yohei	WS08-03-O/P		WS24-27-P
Kaisho, Tsuneyasu	WS04-01-O/P		WS03-05-O/P	Kawai, Yosuke	WS26-14-P	Kedzierski, Lukasz	S01-03
	WS15-05-O/P		WS14-08-O/P	Kawajiri, Akihisa	WS04-22-P		WS24-27-P
	WS17-11-P	Karmaus, Peer W.F.	S04-03		WS07-01-O/P	Kelly, Hannah Gabrielle	
Kaitani, Ayako	○WS03-14-P	Kasakura, Kazumi	WS03-06-P		WS17-02-P		○WS01-14-O/P
	WS05-02-O/P	Kashima, Kenji	WS15-06-O/P	Kawakami, Kazuyoshi	WS22-17-P	Kelsoe, Garnett	○S15-03
	WS05-18-O/P	Kashiwagi, Kosuke			WS20-05-O/P	Keretsetu, Seke	WS22-06-O/P
	WS19-08-P		○WS26-13-O/P		WS01-17-P	Kewcharoenwong, Chidchamai	WS28-13-O/P
	WS26-13-O/P	Kashiwakura, Jun-ichi	WS10-04-P	Kawakami, Shigeru	WS19-02-P		○WS15-27-P
Kaitani, Ryota	WS27-01-O/P		○WS14-01-O/P	Kawakami, Yoshio	WS15-10-P	Khalifa, Alaa	○WS15-27-P
Kaji, Emi	WS16-16-P		○WS18-05-O/P	Kawakami, Yutaka	○WS09-14-O/P	Khalilnezhad, Ahad	WS04-08-O/P
	WS16-19-P	Kasuga, Yusuke	○WS11-18-P	Kawakita, Tomomi	WS16-05-O/P	Khantisitthiporn, Onruedee	
	WS16-22-P	Kasuya, Yuzo	○WS11-18-P		WS24-03-O/P		WS01-07-P
Kajiwara, Susumu	WS16-01-O/P	Katagiri, Mayuka	WS18-01-O/P	Kawamoto, Hiroshi	WS24-05-P	Khoo, Weng Hua	T08
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	WS23-09-O/P		WS19-21-P		WS27-01-O/P	Khunsri, Siriporn	WS17-03-P
Kakugawa, Kiyokazu	WS24-14-P	Katahira, Yasuhiro	WS06-28-P	Kawamoto, Shimpei		Khurana, Vikram	WS23-01-O/P
Kakuta, Shigeru	WS02-11-O/P		○WS19-06-P		○WS25-07-O/P	Kida, Hiroaki	WS06-13-P
	WS14-12-O/P	Katakai, Tomoya	WS22-27-P	Kawamoto, Tadafumi	WS23-08-O/P	Kida, Hiroshi	WS09-14-O/P
	○WS24-02-P		○WS27-11-P	Kawamura, Yoshitsugu			WS09-24-P
Kamachi, Kazuharu	WS20-04-P		WS28-09-P		WS11-04-P	Kidani, Yujiro	WS26-03-P
Kamada, Nobuhiko	WS25-17-P	Kataoka, Kosuke	WS18-10-P		WS03-10-O/P		○WS26-05-P
Kamako, Daisuke	WS25-01-O/P	Katayama, Toyoko	○WS10-22-P	Kawamura, Yosuke	WS03-10-O/P		WS18-16-P
Kamata-Sakurai, Mika	WS15-06-O/P		○WS24-26-P	Kawanabe-Matsuda, Hirotaka		Kikuta, Junichi	WS18-16-P
	WS15-07-O/P	Kato, Arisa	○WS20-04-P		○WS22-20-P	Kikutake, Chie	WS28-03-P
	WS09-14-O/P	Kato, Azusa	WS13-09-P	Kawana-Tachikawa, Ai		Kim, Hye	WS22-06-O/P
	WS09-26-P		WS16-08-O/P		○WS09-17-P	Kim, Hye Young	○S07-06
Kameda, Yayoi	WS10-18-P		WS18-18-P		WS09-18-P	Kim, Lark Kyun	WS03-03-P
Kamei, Momo	WS10-18-P	Kato, Jun	○C03	Kawano, Yohei	WS08-16-P	Kim, Yun-Gi	WS22-20-P
Kamekura, Ryuta	WS20-05-O/P	Kato, Kei	WS28-07-O/P		○WS11-16-P		WS25-16-P
Kamii, Yasuhiro					WS24-18-P	Kimitsu, Toru	WS05-03-P

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Kimura, Akihiko	WS06-01-P		WS14-18-P	Kokubo, Kota	WS09-11-P	Kronenberg, Mitchell	
	WS06-02-P	Kitaura, Jiro	WS03-14-P		WS14-15-P		○OT13
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Kimura, Akihiro	○WS12-04-P		WS05-18-O/P		WS17-10-P	Kuba, Keiji	WS20-13-O/P
Kimura, Atsuko	WS23-07-O/P		WS07-09-P	Komai, Toshihiko	WS02-01-O/P	Kubo, Akiharu	WS19-01-O/P
Kimura, Kazumi	WS17-28-P		WS19-08-P	Komatsu, Noriko	○WS12-17-O/P	Kubo, Masato	○S09-02
Kimura, Kimitoshi	○WS04-08-O/P		WS26-13-O/P	Komatsu, Toshihiro	WS15-01-O/P		WS07-05-O/P
Kimura, Meiko	WS19-08-P	Kitazawa, Takehisa	WS15-06-O/P		WS15-21-P		WS14-09-O/P
Kimura, Miki	WS18-05-O/P		WS15-07-O/P		○WS22-11-P		WS20-05-O/P
Kimura, Miyako	WS04-18-P	Kitazawa, Yusuke	WS18-03-O/P	Komiya, Yoji	○WS09-10-P		WS20-10-P
Kimura, Miyu	WS05-07-P		WS23-10-P	Komori, Mai	WS24-28-P		WS25-04-O/P
Kimura, Motoko Y	○OT14	Kitkumthorn, Nakarin		Komori, Satomi	○WS10-13-O/P	Kubota, Akatsuki	WS17-15-O/P
	WS15-04-O/P		WS17-03-P	Komori, Tadasuke	WS06-01-P	Kubota, Kentaro	○WS20-09-O/P
Kimura, Naoki	○WS15-07-O/P	Kitoh, Akihiko	WS13-03-O/P	Komuro, Atsushi	WS15-16-P	Kubota, Yoshiaki	WS22-11-P
Kimura, Shinya	WS20-04-P	Kiuchi, Masahiro	WS05-12-P	Kon, Shigeyuki	WS22-24-P	Kuchroo, Vijay K.	WS04-08-O/P
Kimura, Shunsuke	WS19-07-O/P		WS09-11-P		○WS23-06-P	Kudo, Takahiro	WS26-13-O/P
Kimura, Uki	○WS16-20-P		WS14-15-P	Kondo, Hiroyuki	WS02-17-P	Kueanjinda, Patipark	
Kimura, Yoshitaka	○WS04-18-P		○WS14-16-O/P		WS17-01-O/P		WS22-26-P
Kinashi, Tatsuo	WS10-07-P		WS14-17-P	Kondo, Kenta	○WS24-20-O/P	Kuehn, Hye Sun	WS21-01-O/P
	WS10-08-O/P		WS17-08-O/P	Kondo, Motonari	WS23-14-P	Kumagai, Shogo	○C09
	WS27-02-P		WS17-09-P		WS24-07-P	Kumagai, Yutaro	○WS18-02-O/P
	WS17-10-P		WS17-10-P		WS24-09-P	Kumano, Keiki	WS04-10-P
Kiniwa, Tsuyoshi	WS20-09-O/P	Kiyohara, Hideyasu	Killian	Kondo, Naoyuki	WS10-07-P	Kumanogoh, Atsushi	
Kinjo, Yuki	WS20-05-O/P		○WS23-04-P		WS10-08-O/P		○S02-02
Kinoshita, Manabu	WS04-11-P	Kiyono, Hiroshi	WS16-09-P		WS27-02-P		WS02-15-O/P
	WS13-09-P	Klomsing, Jeerameth		Kondo, Ryohei	○WS21-15-P		WS06-07-O/P
	WS16-08-O/P		WS22-26-P	Kondo, Toshikazu	WS04-01-O/P		WS08-08-P
	WS18-18-P	Kobayashi, Eiji	WS08-09-O/P		WS06-01-P		WS09-12-P
Kinoshita, Masato	WS07-08-P		○WS08-18-P		WS06-02-P		WS09-15-P
Kinoshita, Takahiro	WS22-03-O/P	Kobayashi, Hisataka	WS15-23-P		WS06-05-P		WS19-16-O/P
Kishi, Hiroyuki	WS08-09-O/P	Kobayashi, Koichi S	WS04-19-P		WS06-06-O/P		WS26-11-O/P
	WS08-18-P		WS04-20-P	Kondo, Yuya	WS02-04-O/P		WS27-12-O/P
	WS09-09-O/P		WS16-18-P		WS02-05-P	Kume, Hiroaki	WS27-06-P
Kishida, Kazuki	○WS13-11-P		WS18-05-O/P		WS12-10-P	Kume, Yasuharu	○WS19-08-P
Kishikawa, Sari	○WS16-16-P		WS22-08-P		WS12-20-O/P	Kuniishi-Hikosaka, Mari	
	WS16-19-P		WS22-09-P		WS17-24-P		WS10-23-P
	WS16-22-P		○WS21-04-O/P	Kondoh, Gen	WS12-11-P		WS28-01-P
Kishimoto, Hidehiro	WS01-25-P	Kobayashi, Maki	○WS20-11-P		WS12-15-O/P	Kunimura, Kazufumi	
Kiso, Maki	WS09-01-O/P	Kobayashi, Reo	○WS19-09-P		WS18-04-O/P		○WS14-07-P
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Kita, Yuki	WS22-07-O/P	Kobayashi, Takao	○WS06-21-P		WS16-21-P	Kuninaka, Yumi	WS06-01-P
Kitabatake, Masahiro		Kobayashi, Takashi	WS22-07-O/P	Kono, Hajime	WS04-18-P		○WS06-02-P
	WS08-19-P		WS01-10-P	Koseki, Haruhiko	S11-05		WS06-05-P
	WS08-24-P	Kobayashi, Tetsuro	WS18-14-O/P		S12-04		WS06-06-O/P
	WS09-13-P		○WS19-05-O/P		WS08-01-O/P	Kunisawa, Jun	WS11-13-P
	WS19-13-P		WS20-12-O/P		WS08-22-P		WS19-17-O/P
	WS26-02-O/P		○WS28-08-P		WS12-18-P	Kuno, Yoshihiro	WS20-08-P
	○WS26-16-P	Kobayashi, Yohei	○WS14-13-P	Koseki, Ryota	○WS09-21-P	Kurachi, Junko	WS24-21-P
Kitada, Ayako	WS12-20-O/P	Kobori, Hajime	WS09-18-P	Kotaki, Ryutaro	WS04-06-O/P	Kurachi, Makoto	WS17-19-P
Kitagawa, Moeka	WS06-04-P	Koga, Michiko	○WS03-13-P		WS09-06-O/P		WS24-21-P
Kitahata, Kosuke	○WS08-13-P	Koga, Rinna	○C11-02		WS26-01-O/P	Kurasawa, Kazuhiro	WS02-14-P
Kitahata, Yuji	WS22-22-P	Koga, Tomohiro	WS26-15-P		○WS28-14-O/P	Kuratani, Ayumi	○WS22-18-P
Kitai, Yuichi	○WS04-14-P	Kogame, Toshiaki	WS20-08-P	Kotani, Takenori	WS10-13-O/P	Kure, Yukie	○WS09-22-O/P
Kitajima, Kenji	○WS11-12-P	Kohda, Chikara	WS22-07-P	Kotani, Takuya	WS02-09-P	Kureha, Taku	○WS10-14-O/P
Kitajima, Masayuki	○WS17-18-P	Kohwi-Shigematsu, Terumi	WS12-01-O/P	Kotani, Yui	WS10-05-P	Kuribayashi, Futoshi	WS11-15-P
Kitajima, Yasuo	WS08-16-P		WS06-15-O/P		○WS28-09-P	Kuroda, Daisuke	WS28-13-O/P
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	WS23-05-O/P		WS09-04-P	Kozuma, Yukinori	○WS13-02-O/P		○WS09-08-O/P
Kitaoka, Koji	○WS22-04-O/P	Kojima, Natsuki			WS21-12-P	Kurosu, Masaki	WS08-14-P
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	WS24-07-P	Liu, Kaiwen	WS04-01-O/P	Masuo, Yuki	○WS26-09-O/P	Matsumoto, Yoshinori	
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Kuzuya, Kentaro	WS02-13-O/P	Liu, X. Shirley	WS22-05-O/P		WS22-16-P		○WS04-06-O/P
Kwok, Immanuel Weng Han		Liu, Xiuting	WS06-26-P	Matangkasombut, Oranart			WS09-06-O/P
	WS27-10-P	Llomas-Covarrubias, Mara Anais			WS01-09-O/P		WS26-01-O/P
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Kyrysyuk, Oleksandr		Lo, Pei-Chi	○WS06-08-O/P	Matano, Tetsuro	WS09-17-P		○WS25-03-O/P
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		Long, Jia	○WS07-07-O/P	Matsubara, Keisuke		Matsuo, Kazuhiko	WS06-04-P
		Long, Wang	○WS15-12-P		○WS05-10-P		○WS09-26-P
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Lam, Christopher Wai-Kei			WS26-03-P		○WS20-07-O/P		WS01-12-O/P
	WS06-26-P	Lucas, Julie	WS09-19-P		WS27-13-O/P		WS01-13-P
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Laumond, Géraldine	WS09-19-P				WS05-19-P	Matsuoka, Yuri	WS08-16-P
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Le, Jeremy	WS10-27-O/P			Matsuda, Satoshi	WS10-05-P		○S09-04
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Lee, Alexander	WS22-06-O/P			Matsuda, Shuichi	WS12-09-P	Matsushima, Kouji	WS04-24-P
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	○WS07-01-O/P	Malik, Nargis	WS22-06-O/P	Matsuki, Kosuke	WS02-01-O/P		WS16-20-P
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	WS22-17-P	Manabe, Ichiro	○OT05	Matsumoto, Hisatake			WS23-08-O/P
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	○WS14-14-P	Mann, Alexander	S07-05		WS02-05-P		WS11-04-P
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Li, Xiao-Kang	WS13-04-O/P		WS13-10-P		WS12-20-O/P		WS11-04-P
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		Mizukami, Takuo	WS04-17-P		WS04-06-O/P WS09-06-O/P WS26-01-O/P WS28-14-O/P WS28-15-O/P	Murakami, Teruaki	WS09-12-P
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Shibuya, Rintaro	WS13-03-O/P	Shinoda, Yoshiki	WS11-03-O/P		WS01-20-P	Suzuki, Hiroshi	WS01-25-P
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	WS26-02-O/P	Shirai, Harumi	WS02-16-O/P	Subramanian, Ayshwarya		Suzuki, Misaki	WS24-25-P
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	○WS10-11-P	Smout, Michael	WS01-19-O/P		WS02-21-P	Tabe, Toko	WS12-13-P
Shimizu, Kanako	WS08-23-P	So, Lomon	WS23-12-O/P		WS17-24-P	Tachikawa, Natsuo	WS09-17-P
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Takagi, Sayaka	WS16-11-P	Takaori-Kondo, Akifumi	WS10-12-P	Taniguchi, Hinata	WS09-08-O/P
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Takahashi, Haruka	WS12-12-P	WS09-25-P	Tamura, Naoto	Taniuchi, Ichiro	WS24-11-O/P
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Takahashi, Ikuko	WS06-13-P	WS22-13-P	Tamura, Naoto	Tasaki, Sonoko	WS16-16-P
Takahashi, Kazufusa	WS03-05-O/P	WS22-21-P	Tamura, Naoto	Tasaki, Sonoko	WS16-19-P
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Takahashi, Munetomo	WS08-14-P	S02-05	Tamura, Naoto	Tatematsu, Megumi	WS11-03-O/P
Takahashi, Noriko	WS25-04-O/P	WS07	Tamura, Naoto	Tatematsu, Megumi	WS02-20-P
Takahashi, Riku	WS04-02-O/P	WS06-07-O/P	Tamura, Naoto	Tatematsu, Megumi	WS24-08-P
Takahashi, Risa	WS16-09-P	WS19-16-O/P	Tamura, Naoto	Tatematsu, Megumi	WS04-22-P
Takahashi, Satoru	WS02-21-P	WS19-17-O/P	Tamura, Naoto	Tatematsu, Megumi	WS07-01-O/P
Takahashi, Satoru	WS03-01-O/P	WS25-05-O/P	Tamura, Naoto	Tatematsu, Megumi	WS17-02-P
Takahashi, Sonoko	WS19-01-O/P	WS25-22-P	Tamura, Naoto	Tatematsu, Megumi	WS22-17-P
Takahashi, Sonoko	WS25-04-O/P	WS10-04-P	Tamura, Naoto	Tatematsu, Megumi	WS23-05-O/P
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Takahashi, Yoshimasa	WS04-06-O/P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	T08
Takahashi, Yoshimasa	WS04-17-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS28-07-O/P
Takahashi, Yoshimasa	WS09-06-O/P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS25-23-P
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Takahashi, Yoshimasa	WS28-14-O/P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS15-11-P
Takahashi, Yoshimasa	WS28-15-O/P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS01-08-O/P
Takai, Tomoko	WS10-13-O/P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS04-06-O/P
Takai, Toshiro	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS09-06-O/P
Takai, Toshiro	WS05-04-O/P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS11-07-P
Takakura, Masahito	WS03-10-O/P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS07-14-P
Takakura, Masahito	WS11-06-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS06-13-P
Takakura, Takahito	WS11-04-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS15-01-O/P
Takami, Mariko	WS15-08-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS15-21-P
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Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS12-05-O/P
Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS12-06-P
Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS22-08-P
Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS23-10-P
Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS04-19-P
Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS04-20-P
Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS16-18-P
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Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS16-19-P
Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS16-22-P
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Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS06-13-P
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Takamori, Kenji	WS05-03-P	Takeda, Yuji	Tamura, Naoto	Tatematsu, Megumi	WS15-21-P
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			○WS23-20-P	Yamashita, Hiroka	○WS05-05-P	T04
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Watanabe, Miyuki	WS20-11-P	Yamada, Toshiaki	WS20-13-O/P	Yamashita, Motoi	○WS24-12-P	○WS15-11-P
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	WS17-26-O/P	Yamaguchi, Yuta	WS09-12-P	Yamazaki, Tatsuya	WS03-17-P	WS24-10-P
	WS28-11-O/P		○WS09-15-P	Yamazaki, Yuriko	WS05-01-O/P	Yokoyama, Nozomu
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Wongprom, Benjawan		Yamamoto, Kazuhiko			○WS22-12-P	WS05-08-P
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Wucherpfennig, Kai W.			WS11-17-O/P	Yangsong, Wang	○WS22-17-P	WS16-13-P
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		Yamamoto, Reiji	WS06-24-O/P		WS06-18-P	WS11-11-O/P
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		Yamamura, Takashi	WS02-07-P		WS11-06-P	Yoshida, Yuya
			WS07-14-P	Yasuda, Keiko	WS01-05-O/P	○WS14-10-P
			WS17-14-P		WS09-16-P	Yoshie, Osamu
			WS23-07-O/P	Yasuda, Shinsuke	WS09-10-P	WS09-26-P
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						WS03-02-O/P
						WS03-03-P
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     ○ T04  
 Yoshimura, Teizo   WS08-26-P  
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## Z

Zama, Noyuri        WS04-19-P  
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# 患者様の想いを見つめて、 薬は生まれる。

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病気とたたかう人の、言葉にできない痛みや不安。生きることへの希望。  
私たちは、医師のように普段からお会いすることはできませんが、  
そのぶん、患者様の想いにまっすぐ向き合っていたいと思います。  
治療を続けるその人を、勇気づける存在であるために。  
病気を見つめるだけでなく、想いを見つめて、薬は生まれる。  
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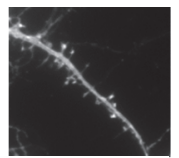
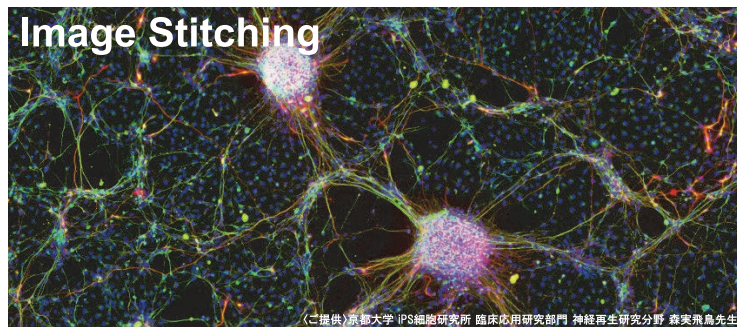
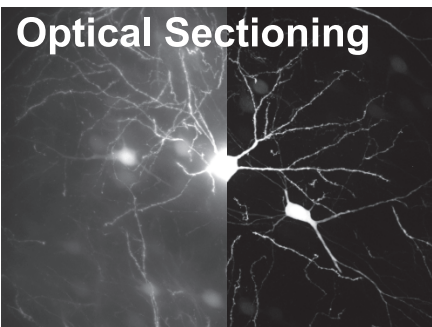
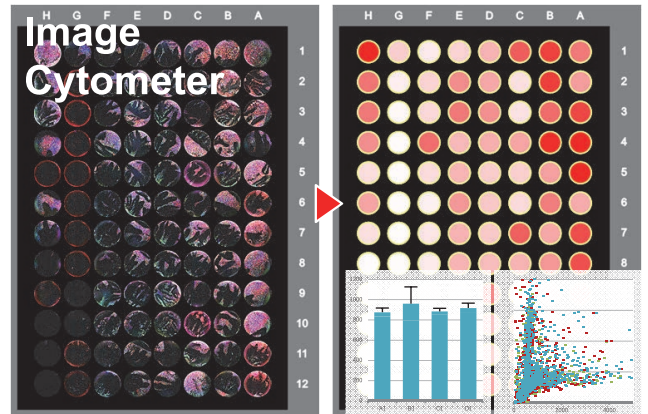
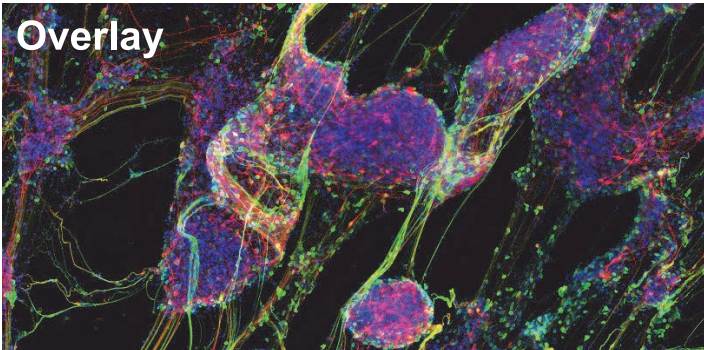


## 私たちのイノベーションを、 待っている人がいる。

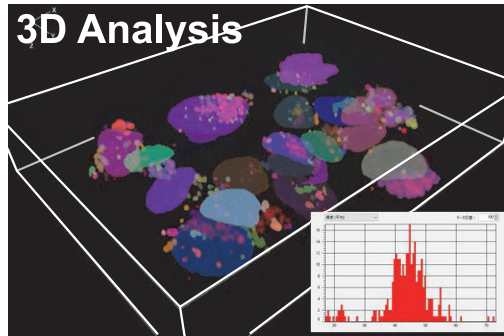
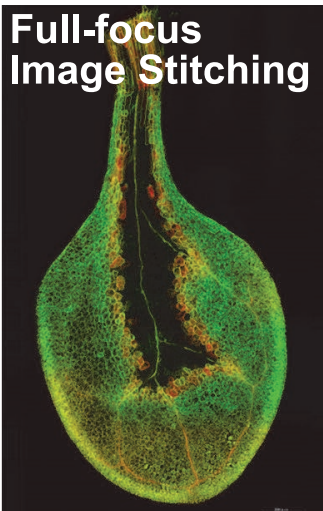
ギリアドは、信じています。  
不可能は、不可能ではない。  
まだ見ぬ可能性の源であると。  
そんな思いで私たちはHIV、肝炎、  
炎症性疾患、そしてがんなどの疾病に  
革新的なアプローチで挑み、患者さんのより良い生活を  
実現するための治療薬を開発してきました。  
新型コロナウイルス感染症の流行にもいち早く対応し、  
世界で最初に承認された抗ウイルス薬を開発。  
不可能へと挑む勇気、そして患者さんを想う強い気持ちをもって、  
一丸となり新たな可能性を生み出してきました。  
多くの患者さん、それを支える人たちを守るという強い決意のもと、  
日本法人を立ち上げて、10年を越えました。  
まだまだ、私たちの創業を待つ人がいる。  
これからも、この日本で、一緒に。  
イノベーションを起こし続けることを誓います。  
私たちは、ギリアド・サイエンシズ。  
不可能は不可能ではないと、証明するために。



1台で何役も。進化する顕微鏡。

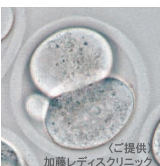
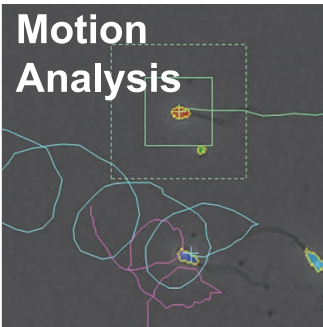
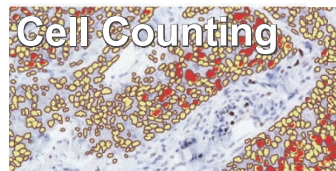


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