2021 日本免疫学会総会・学術集会記録 第50巻 奈良春日野国際フォーラム～喜～ プログラム

2021

日本免疫学会総会・学術集会記録

The 50th Annual Meeting of The Japanese Society for Immunology

第 50 巻

Program

Nara Kasugano International Forum - I RA KA -

December 8 (Wed.)
9 (Thu.)
10 (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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The 50th Annual Meeting of The Japanese Society for Immunology

December 8 (Wed.) – 10 (Fri.), 2021
Hybrid Format
(Nara Kasugano International Forum -I RA KA - / Online)

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The 50th Annual Meeting of the Japanese Society for Immunology
Congress Secretariat

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The 50th Annual Meeting of the Japanese Society for Immunology places utmost importance on the safety and security of all who are involved: participants, organizers, and staff, and takes the following measures. We would like to ask for your understanding and cooperation.

Basic guidelines on COVID-19 infection control

We will follow measures set by Nara Kasugano International Forum based on policies of the Nara prefectural government to prevent spread of COVID-19.

Request to visitors

Please refrain from coming to the meeting venue if you don't feel well.
Any person having a fever, cough, pain in the throat, feeling of malaise or breathing problem on the day of the meeting is not allowed in the meeting venue. In case you are sick in the meeting venue, call Nara prefecture "COVID-19 Testing Consultation Desk" and seek their direction.

Nara Prefecture COVID-19 Testing Consultation Desk (former returnee/contact consultation center)
TEL：+81-742-27-1132

Health Monitoring Form

Print and fill out "Health Monitoring Form" which you can download from the meeting website, every day you attend the meeting. Please submit it to meeting staff at the registration desk when you arrive at the venue. Meeting staff will put a confirmation sticker on your meeting badge after receiving and checking the form you submitted.
If anyone who participates or engages in the meeting is found to have been infected with COVID-19, central or local government may ask us to provide information of participants as well as others who organize or engage in the meeting. Please kindly understand that we will respond to central or local government's request and provide necessary personal information with careful attention to its handling.

Practice Social Distancing

Avoid closed spaces, crowded spaces and closed-contact setting and practice social distancing. Wear a mask at all times in the venue. Avoid talking when you eat or drink.

Infection Control

Please help us to protect you and all the others who participate and engage in The 50th Annual Meeting of the Japanese Society for Immunology.

	Wear a mask at all the times on the meeting site. We may ask you to leave if you are not wearing a mask.
	Use hand sanitizers placed near entrances of buildings or rooms often. Please use them every time you enter or exit.
	Maintain social distancing and leave a space between you and others when you sit in lecture rooms.
	Open for Ventilation *Leaving air-conditionings on and doors open.

Install the contact-confirming applications to protect you and others.

Ministry of Health, Labor and Welfare COVID-19 Contact-Confirming Application
[Abbreviation: COCOA]

(App Store)

(Google Play)

Program of The Japanese Society for Immunology (JSI)

Vol. 50

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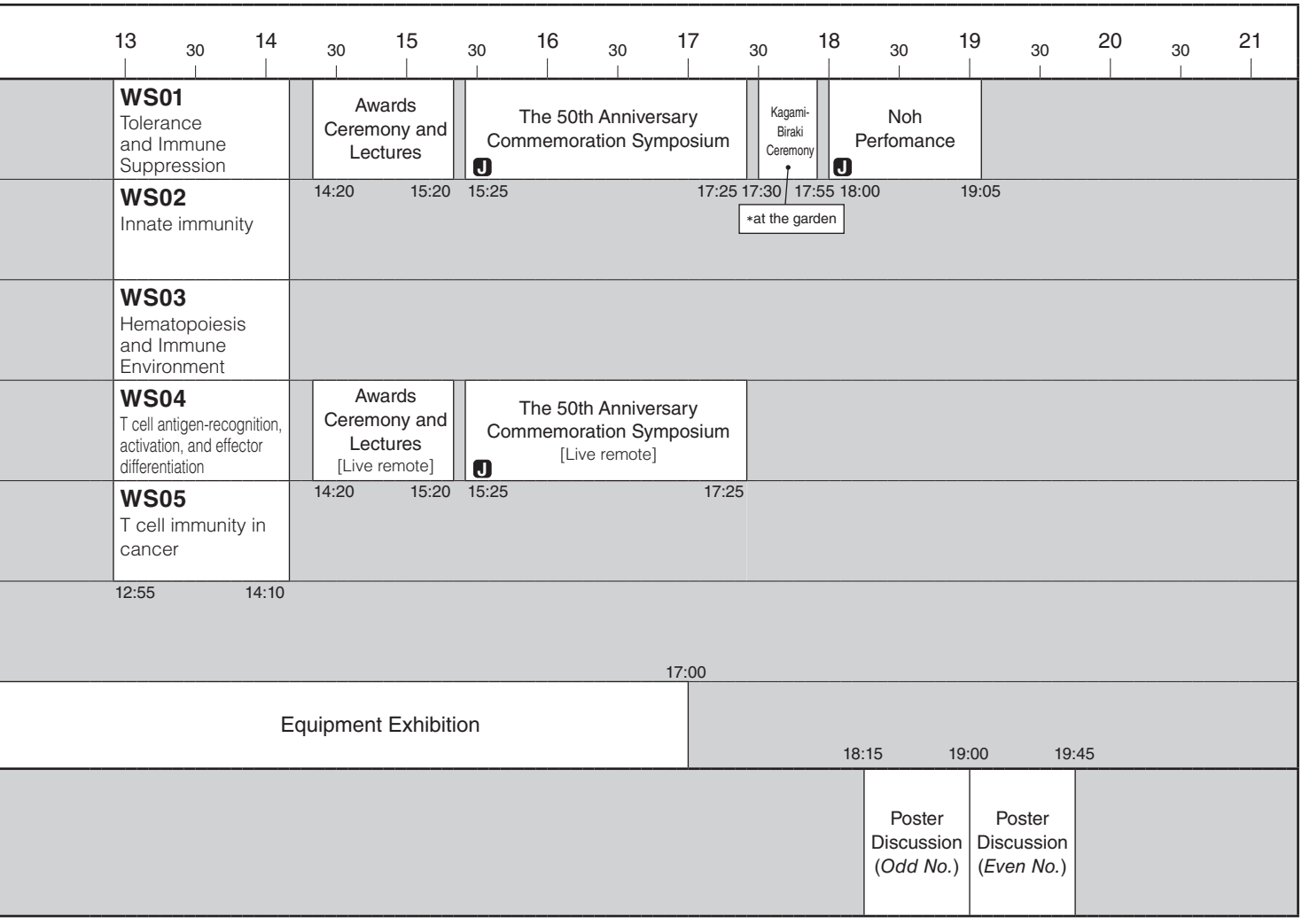
The 50th Annual Meeting of the Japanese Society for Immunology
Program at a glance

December 8 (Wed.), 2021

Building / Room			Program Room Number	8 30 9 30 10 30 11 30 12 30
Main Building	1F	Noh Theatre	*Room A*	**OT01** J **S01** Systemic organ interactions in health and disease **T01** Merck Ltd. Japan J
		Conference Room 1&2	*Room B*	**OT02** J **S02** Redefining T cell exhaustion: dissecting heterogeneity and translation into immunotherapy ASI-JSI Joint Session **C02** Sanofi Genzyme Medhical Operations, Sanofi K.K. J
	2F	Conference Room 3&4	*Room C*	**OT03** J **S03** A novel immune regulation governed by Immunometabolism **T02** TOMY DIGITAL BIOLOGY CO.,LTD. J
		Reception Hall 1	*Room D*	**OT04** J **S04** Barrier Immunity in the homeostasis and pathogen defense **C01** Novartis Pharma K.K. J
Annex	1F	Reception Hall 2	*Room E*	8:30 9:00 11:30 **C03** CHUGAI PHARMATICAL CO., LTD. J
	2F	Conference Room 5	*Room F*	11:45 12:45 / 9:00
Floor, Main Building				Equipment Exhibition
Online				

OT | Overview Talk **S** | Symposium **C** | Clinical Seminar
T | Technical Seminar **WS** | Workshop **J** | in Japanese

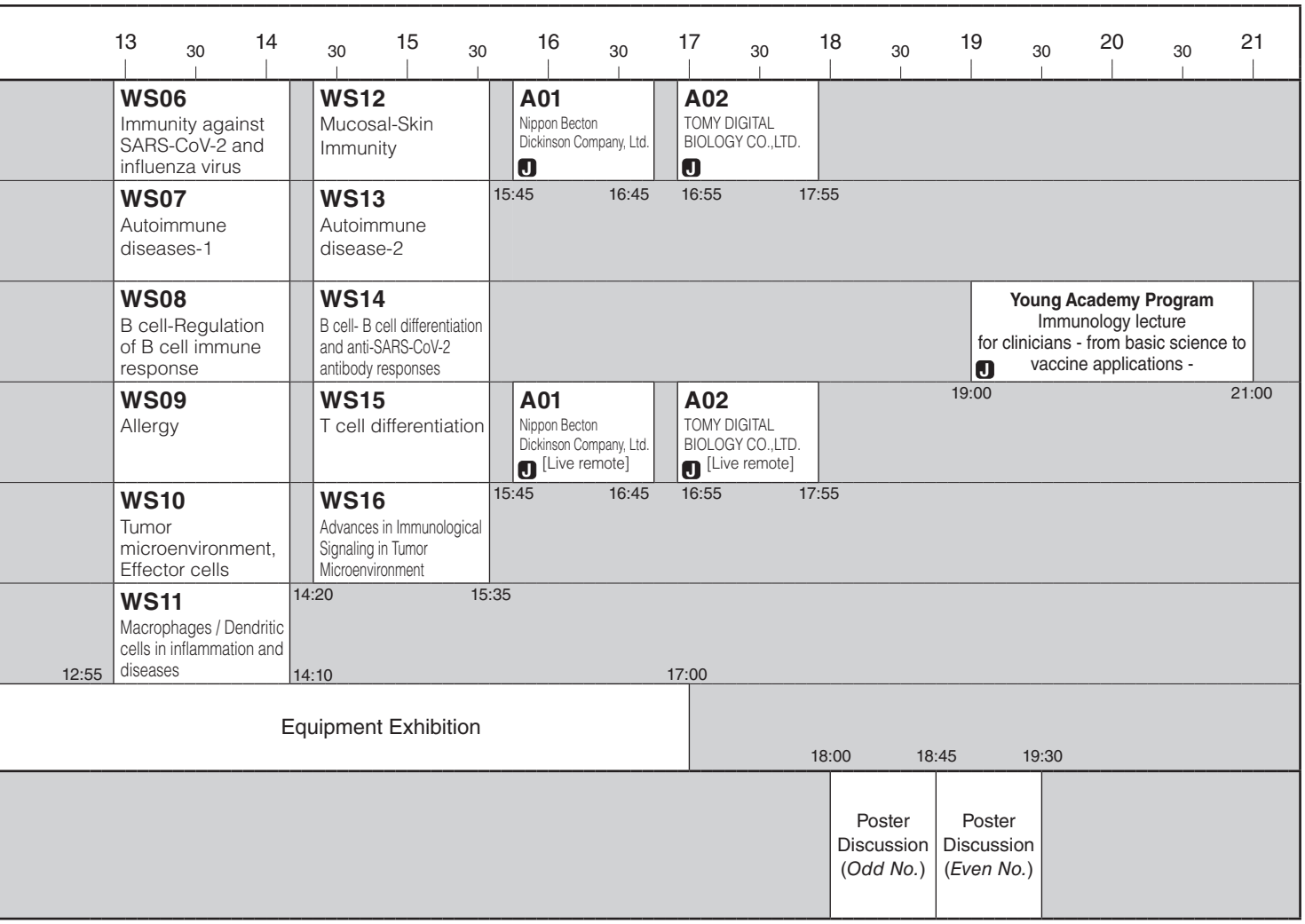


The 50th Annual Meeting of the Japanese Society for Immunology
Program at a glance

December 9 (Thu.), 2021

Building / Room			Program Room Number	8 30 9 30 10 30 11 30 12 30
Main Building	1F	Noh Theatre	*Room A*	**OT05** J **S05** Neo-Immunology by COVID-19 vaccine R&D SFI-JSI, GFI-JSI, and KAI-JSI Joint Session **T03** Nikon Solutions Co., Ltd. J
		Conference Room 1&2	*Room B*	**OT06** J **S06** Inflammation, tissue repair, fibrosis **C05** Mitsubishi Tanabe Pharma Corporation/ Janssen Pharmaceutical K.K J
	2F	Conference Room 3&4	*Room C*	**OT07** J **S07** System immunology approach for immune regulation research **C06** Bristol-Myers Squibb K.K. / ONO PHARMACEUTICAL CO., LTD. J
		Reception Hall 1	*Room D*	**OT08** J **S08** Next advances in Allergic research JSA-JSI Joint Session **C04** Gilead Sciences K.K./Eisai Co., Ltd. J
Annex	1F	Reception Hall 2	*Room E*	**OT09** J **S09** Regulation of anti-tumor immune responses ASI-JSI Joint Session **C07** ASAHI KASEI Pharma J
	2F	Conference Room 5	*Room F*	8:30 9:00 11:30 **C08** DAIICHI SANKYO COMPANY, LIMITED J 12:45
Floor, Main Building				9:00 11:45 Equipment Exhibition
Online				

OT | Overview Talk **S** | Symposium **C** | Clinical Seminar
T | Technical Seminar **WS** | Workshop **J** | in Japanese



The 50th Annual Meeting of the Japanese Society for Immunology
Program at a glance

December 10 (Fri.), 2021

Building / Room			Program Room Number	8 30 9 30 10 30 11 30 12 30
Main Building	1F	Noh Theatre	*Room A*	**OT10** J **S10** Innate and adaptive immunities against viral infection including COVID-19 KAI-JSI, and DGFI-JSI Joint Session (11:45–12:45)
		Conference Room 1&2	*Room B*	**OT11** J **S11** Recent advances in innate lymphocyte research US-Japan Immunology Program Co-organized Session **C10** AbbVie GK J
	2F	Conference Room 3&4	*Room C*	**OT12** J **S12** Recent advances in clinical application of cytokine research **C11** Otsuka Pharmaceutical J
		Reception Hall 1	*Room D*	**OT13** J **S13** Autoimmunity and Human Immunology JCR-JSI Joint Session **C09** ASAHI KASEI Pharma J
Annex	1F	Reception Hall 2	*Room E*	**OT14** J **S14** Myeloid cells: new developmental mechanism and function **C12** Pfizer Japan Inc. J
	2F	Conference Room 5	*Room F*	8:30–11:30 **C13** AYUMI Pharmaceutical Corporation J (9:00–9:00)
Floor, Main Building				Equipment Exhibition
Online				

OT | Overview Talk **S** | Symposium **C** | Clinical Seminar
T | Technical Seminar **WS** | Workshop **J** | in Japanese

13 30 14 30 15 30 16 30 17 30 18 30 19 30 20 30 21

	T04 Nippon Becton Dickinson Company, Ltd. J		**WS17** Immune responses to pathogen infection
	T05 Scrum Inc./ 10x Genomics J		**WS18** Innate lymphocytes
	T06 Thermo Fisher Scientific J		**WS19** Cytokines and Chemokines
	C14 Janssen Pharmaceutical K.K. J		**WS20** T cell development and function
	T07 Beckman Coulter K.K. J		**WS21** Macrophage in inflammation and diseases
12:55	**T08** Fluidigm K.K. J 13:55	14:05	**WS22** Human Immunology 15:20

Equipment Exhibition

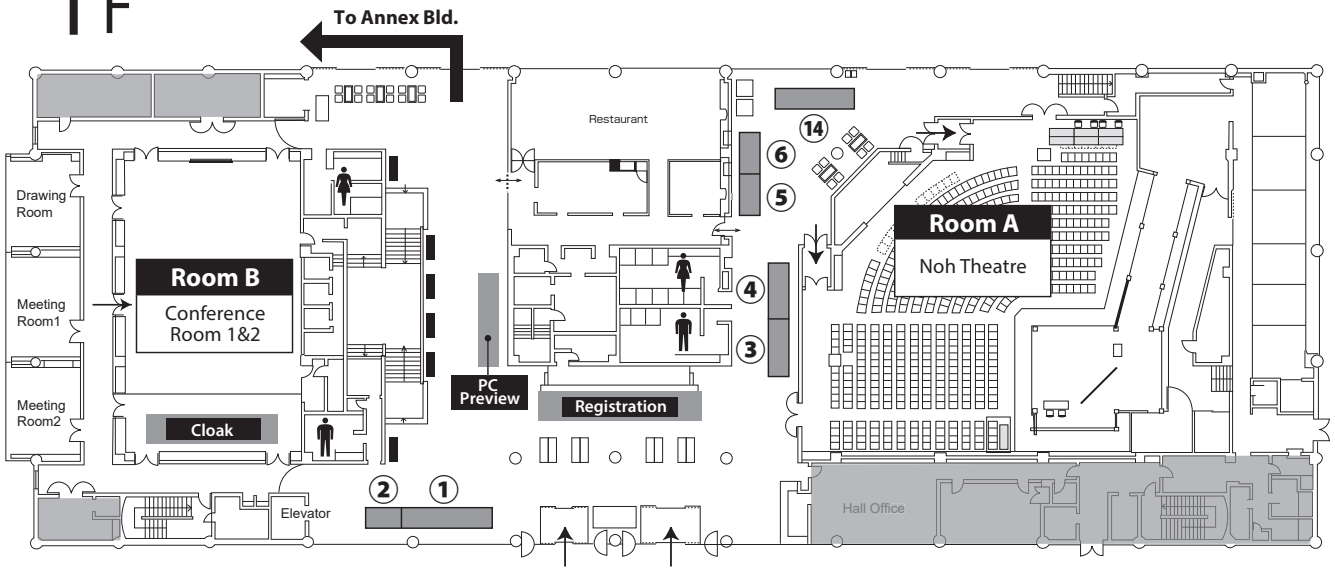
15:00 15:30

16:15 Poster Discussion (*Odd No.*)

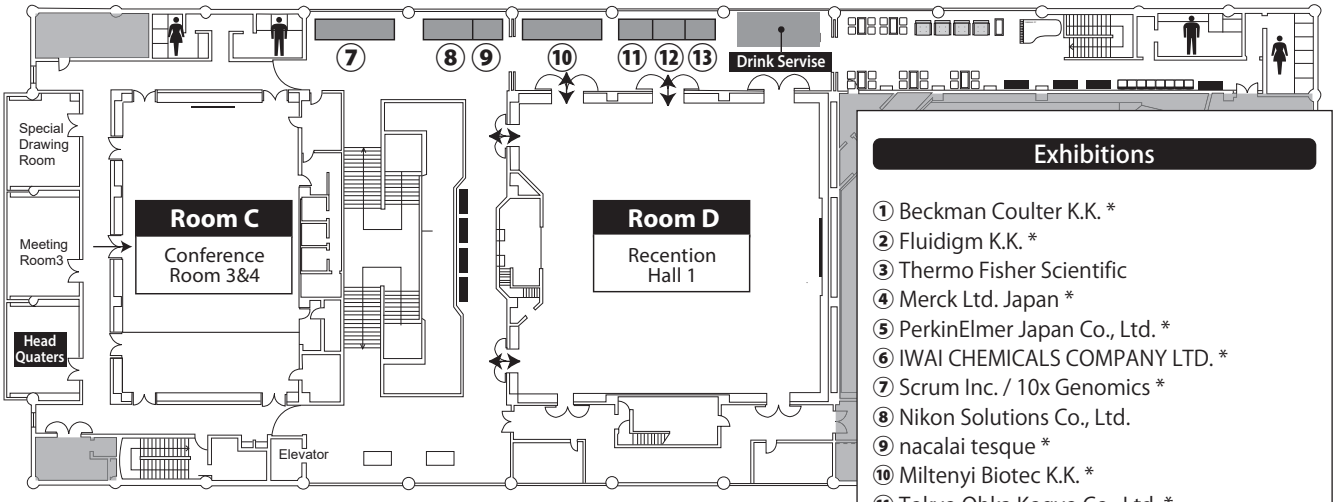
17:00 Poster Discussion (*Even No.*)

Nara Kasugano International Forum | *Main Building* |

1F



2F



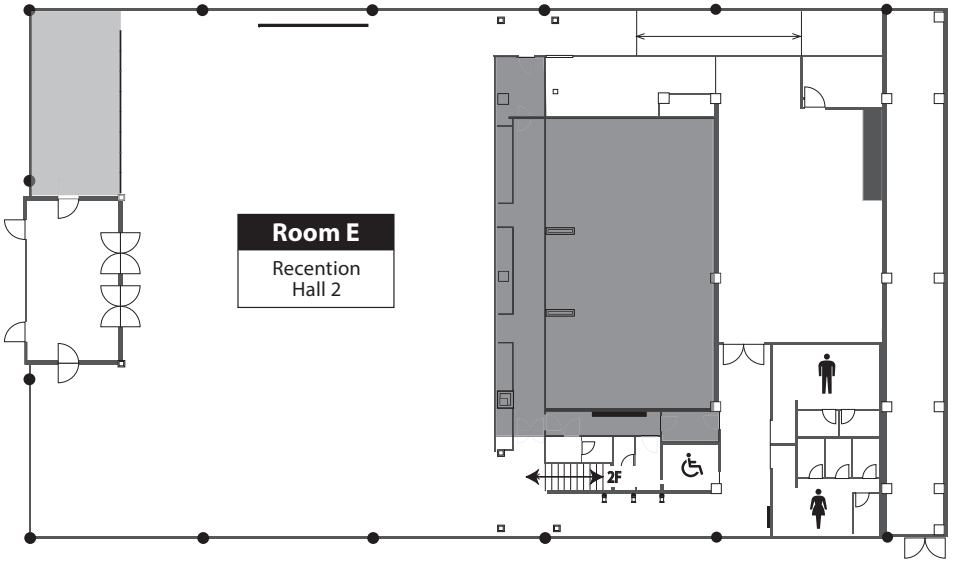
Exhibitions

① Beckman Coulter K.K. *
② Fluidigm K.K. *
③ Thermo Fisher Scientific
④ Merck Ltd. Japan *
⑤ PerkinElmer Japan Co., Ltd. *
⑥ IWAI CHEMICALS COMPANY LTD. *
⑦ Scrum Inc. / 10x Genomics *
⑧ Nikon Solutions Co., Ltd.
⑨ nacalai tesque *
⑩ Miltenyi Biotec K.K. *
⑪ Tokyo Ohka Kogyo Co., Ltd. *
⑫ CSCRIE CORPORATION *
⑬ AS ONE Corporation *
⑭ Nippon Becton Dickinson Company, Ltd. *

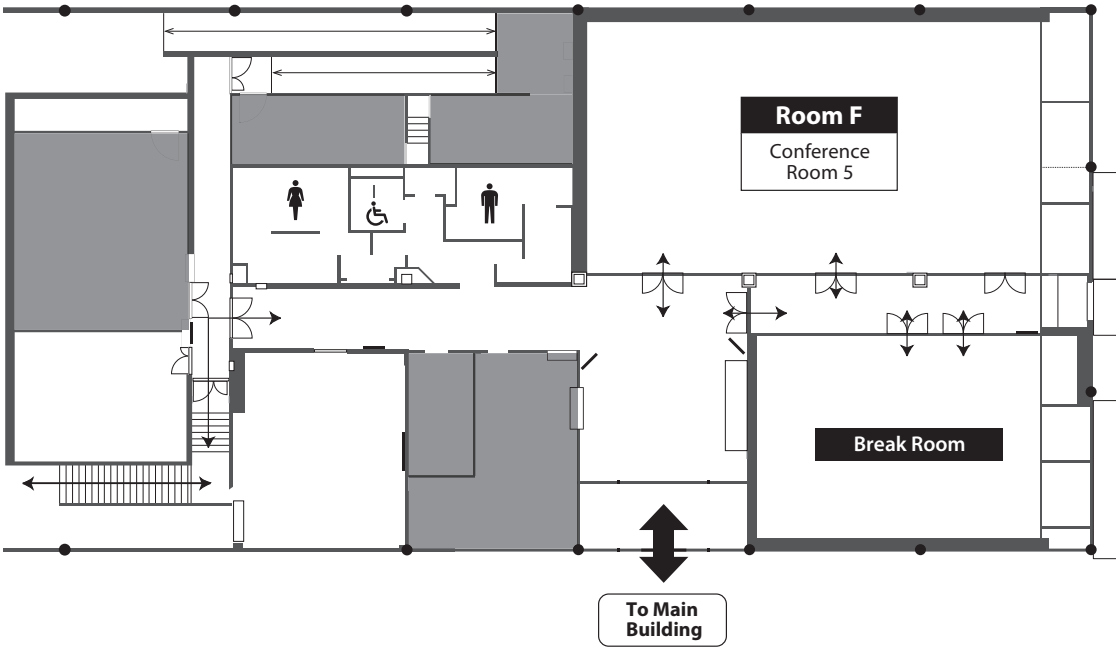
* Sponsor of the Lottery

Nara Kasugano International Forum | *Annex* |

1F



2F



ご案内

1. 現地会場（奈良）での参加方法

◆ 事前参加登録をされた方

11 月 16 日（火）17:00 までに事前参加登録を済ませた方は、大会会場の参加受付でネームカードをお受け取りください。
領収書や参加証明書は学術集会オンラインシステム「ONLINE CONF」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。

◆ 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します。
〈当日参加費〉

正会員	14,000 円
学生会員 *	3,000 円
非会員	17,000 円
非会員学生 *	7,000 円

* 学部・大学院生は学生証の提示が必要です

〈参加受付開設時間〉

12 月 8 日（水）	8:00 ～ 16:00
12 月 9 日（木）	8:00 ～ 16:00
12 月 10 日（金）	8:00 ～ 14:30

◆ 名誉会員・功労会員

1 階　ホワイエの学会事務局デスクにお越しください。

2. オンラインでの参加方法

◆ 事前参加登録をされた方

学術集会オンラインシステム「ONLINE CONF」へアクセスし、抄録や発表映像をご覧ください。
領収書や参加証明書も「ONLINE CONF」よりダウンロードしてください。

◆ 当日参加申込をされる方

学術集会オンラインシステム「ONLINE CONF」にて参加登録をして参加費を支払い、抄録や発表映像をご覧ください。オンラインでの当日参加申込の支払い方法は、クレジットカードのみです。
お支払い完了後、発表映像等を閲覧できます。
領収書や参加証明書は「ONLINE CONF」よりダウンロードしてください。

3. オンデマンド配信について

一部のプログラムでは、会期中の発表を録画しオンデマンド配信いたします。
もう一度見たい講演や見逃した講演など、ぜひご覧くださいませ。

＜配信期間＞
プログラム実施の約 3 日後～ 2021 年 12 月 30 日（木）

＜視聴方法＞
学術集会オンラインシステム「ONLINE CONF」へログインのうえご視聴ください。

＜配信するプログラム＞
Overview Talk、シンポジウム：発表者の承諾を得た一部の発表を配信します。配信対象の発表は、プログラムページでアイコンを表示しています。
Workshop（口頭発表）：配信はいたしません。
Workshop（ポスター）：サイトにアップロードされたポスター PDF 画像と発表動画を配信します。

4. 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。2022 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。オンラインで参加する方は、学会ホームページでお手続きください。

入会金		1,000 円
年会費	国内正会員	11,000 円
	海外正会員	12,000 円
	国内学生会員	3,000 円
	海外学生会員	4,000 円

※学術集会で発表する方（国内の共同演者含む）は 2021 年度の学会員であることが義務付けられています。

5. プログラム、抄録集（プロシーディングス）

会員は抄録集（プロシーディングス）は 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。
プログラムは学術集会ホームページで公開し、また現地会場でも印刷媒体を配布いたします。

2021 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。

6. 授賞式・受賞講演

授賞式：12 月 8 日（水） 14:20 ～ 14:30　A 会場（能楽ホール）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：12 月 8 日（水）14:30 ～ 15:20　授賞式に引き続き、A 会場（能楽ホール）にて行います。

・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

7. 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。

日本免疫学会 50 周年記念行事

日本免疫学会は 2020 年に発足から 50 年を数え、本学術集会では記念事業の一つとして 50 周年記念シンポジウムを企画しました。

このシンポジウムでは、本学会の黎明期より現在に至るまで、免疫学分野研究の第一線でご活躍されております先生方に免疫学会あるいは免疫学の歴史等について、また次の 50 年に向けた後進へのメッセージなどを講演していただきます。

会場は、当施設内の伝統美を誇る「能舞台」を予定しています。

シンポジウムのあとは、現地の会場にお集まりの参加者のみなさまで「50 周年祝賀鏡開き」を企画しております。感染拡大防止対策を講じて実施いたしますが、参加される皆さまにおかれましても十分にご注意のうえ、ぜひご参加くださいませ。

さらに、鏡開きの後は今一度能舞台に会場を戻し、故多田富雄先生の新作能を上演いたします。

この舞台は、故多田富雄先生による我々への警告です。 これは、多田博士作の現代能「ISSEKI SENNIN（アルバート・アインシュタイン)」と伝統的な狂言で構成されています。

記念シンポジウムから鏡開き、能の上演まで、どうぞお楽しみください。

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 14 テーマ（S01 ～ S14）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。

JSA-JSI 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。

JCR-JSI 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。

ポスター、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。
ポスター討論ではディスカッサーを設けます。会員、参加者の皆様の熱のこもった討論、そしてさらなる交流・情報交換の場となることを期待しております。
ポスター発表は、オンラインで開催します。
現地でポスター発表または視聴をする場合は、PC またはタブレットとマイク付きイヤホンを持参の上、ご来場ください。
ポケット Wi-Fi（p.18 参照）を貸し出しておりますのでご利用ください。
Room A 以外の会場で自由にポスター発表および視聴をしていただけます。

免疫若手アカデミー

「臨床医が必要とする免疫学　－ 基礎免疫学からワクチン応用へ －」

2019 年より始まった COVID-19 の世界的な流行により、国民の日常生活は大きな打撃を受けており、感染応答やワクチンに対する関心は非常に高まっています。実際にワクチン接種・開発が国内外で進んでいく中で、基礎研究者だけではなく臨床医にとっても正しい免疫学的な知識を持って診療にあたる必要が生じています。そこで、今期学会において、免疫若手アカデミーからは「臨床医が必要とする免疫学」と銘打ち、基礎的な免疫学と共に臨床に必要な COVID-19 の知識やワクチンの現状について、免疫学の専門家による分かりやすい内容での講義を開催します。自然免疫・獲得免疫応答を含む免疫学の基礎的な内容については理化学研究所・小安重夫先生が、RNA ワクチンや最近のワクチン開発の現状および動向については東京大学・医科学研究所・石井健先生により、初めて免疫学について学ぶ人にも分かりやすい内容でそれぞれ 35 分間の講義をして頂き、その後 5 分の質疑応答を行います。
(* 本プログラムは日本語で行われる予定です。)

セミナー

テクニカルセミナー、クリニカルセミナーはランチョン形式で行います。お弁当については、次項の「8. 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

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。

▶ 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。

8. セミナー整理券（ランチョンセミナー）

テクニカルセミナー、クリニカル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　ホワイエ
配布時間：各日 8:00 ～ 11:30　※ 11:30 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。

9. Wi-Fi 接続機器（モバイルルーター）の貸出し

ポスターセッションはオンラインで行います。現地会場で参加し、Wi-Fi 接続機器が必要な方には無料で貸し出しを行います。

貸出場所：本館 1F ホワイエ　受付
貸出時間：12 月　8 日（水）17:00 ～ 19:45
　　12 月　9 日（木）17:30 ～ 19:30
　　12 月 10 日（金）15:00 ～ 17:00

【ご注意】
・必ず当日中にご返却ください。
・端末の紛失、破損、水没等があった場合、弁償いただく場合がございます。
・PC またはタブレット、マイク付きイヤホンを持参して下さい。

10. 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抽選会も実施します。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。

11. 会員懇親会

本学術集会では会員懇親会を実施いたしません。

12. 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。この規制につきましては、平成 17 年 12 月に開催されました第 35 回日本免疫学会総会・学術集会より適用されておりますので、ご理解と周知のほどよろしくお願いいたします。

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。

13. シャトルバス

JR「奈良」駅・近鉄「奈良」駅・会場を結ぶシャトルバスを運行します。運行スケジュールや乗り場については大会ホームページをご確認ください。

General Information

1. On-site Participation (Nara)

◆ Pre-registered participants

For those who completed advance registration before November 16 (Tue), please receive a meeting badge at the registration desk on the meeting site.

A receipt of registration fee and certificate of attendance are downloadable from “ONLINE CONF”: the online meeting system. You need to enter your email address and password to login to this system.

◆ On-site registration

Please come to the registration desk, pay 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 Fees〉

Member	JPY 14,000
Student Member*	JPY 3,000
Non-member	JPY 17,000
Student Non-member*	JPY 7,000

*Undergraduate and graduate students are required to show their student ID.

〈Registration Desk opening hours〉

December 8 (Wed)	8:00 -16:00
December 9 (Thu)	8:00 -16:00
December 10 (Fri)	8:00 -14:30

◆ Honorary members / Meritorious members

Please come to the Invitee Desk at Foyer, 1F.

2. Online Participation

◆ Pre-registered participants

Login to “ONLINE CONF”: the online meeting system, then you can browse abstracts and view lectures.

A receipt of registration fee and certificate of attendance are downloadable from this system.

◆ Meeting day registration

Register and pay the registration fee at “ONLINE CONF”: the online meeting system. Then you can browse abstracts and view lectures on this system. We will accept only credit cards for payment of online registration during the meeting.

A receipt of registration fee and certificate of attendance are downloadable from this system.

3. On-demand Streaming

Some sessions will be recorded and available for on-demand streaming after the meeting.

<Streaming Period>
Three days after sessions to December 30 (Thu).

<How to view>
Login to “ONLINE CONF” and start viewing on-demand streaming sessions.

<On-demand streaming sessions>

Overview Talk / Symposia:	Some lectures of Overview Talk and symposia will be available for on-demand streaming. Lectures available for on-demand streaming are marked with the icon **OD** on the program page.
Workshop (Oral presentations):	Not available for on-demand streaming
Workshop (Poster presentations):	Both poster PDF files and presentation videos will be available for on-demand streaming.

4. 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. For online participants, please visit the society website to join the membership or pay membership fees.

Application fee		JPY 1,000
Annual Membership Fee	Member (Domestic)	JPY 11,000
	Member (Overseas)	JPY 12,000
	Student Member (Domestic)	JPY 3,000
	Student Member (Overseas)	JPY 4,000

*Presenting authors (including co-authors who live in Japan) must be a member of the JSI and completed the payment of 2021 annual membership fee.

5. Meeting Program / Proceedings (Abstracts)

Proceedings (abstracts) as a PDF file will be available at the website for JSI members. You need your membership ID and password to login to this website.
Digital version of Meeting Program will be available on the meeting website and printed version of Meeting Program will be distributed to all participants on the meeting site.

If you completed the payment of 2021 annual membership fee, but you 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.

6. Awards Ceremony & Lectures

Ceremonies: Wednesday, December 8, 14:20-14:30, Room 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, December 8, 14:30-15:20, Room A

Lectures below will be held after the above Ceremonies.

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

7. Special Programs

The 50th JSI meeting will have following special programs.

The symposium commemorating the 50th anniversary of the Japanese Society for Immunology

The Japanese Society for Immunology marked its 50th anniversary of establishment in 2020.

The 50th anniversary symposium will be held as one of commemorative events. Researchers who have been active at the front line of this field since the early days of the society up to the present date, will give lectures regarding the history of Immunology and messages to young researchers for next 50 years.

This symposium will be held at “Noh Theatre”, the traditional Japanese Noh drama theater. After the symposium, the new piece of Noh drama written by the late Dr. Tomio Tada will be performed.

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The 50th anniversary symposium will be held as one of the commemorative events. Researchers who have been active at the front line of this field since the early days of the society up to the present date, will give lectures regarding the history of immunology and messages to young researchers for next 50 years.

This symposium will be held at “Noh Theatre”, the traditional Japanese Noh drama theater. After the symposium, we will hold a “Kagami-Biraki” ceremony celebrating the 50th anniversary of the Japanese Society for Immunology and all on-site attendees are invited to the ceremony. We will take all necessary measures to prevent infection to hold the ceremony and would like to ask for attendees’ cooperation in preventing the spread of infection.

After the ceremony, the new piece of Noh drama written by the late Dr. Tomio Tada will be performed.

This Noh play is a warning for us by late Dr. Tomio Tada. This play is composed by Tada's modern Noh work “ISSEKI SENNIN(means Albert Einstein)” and traditional Kyogen.

We look forward to your participation to the 50th anniversary symposium and hope you will enjoy Kagami-Biraki ceremony and Noh drama.

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 14 topis (S01-S14) 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.

JSA-JSI Joint Symposium

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

JCR-JSI Joint Symposiumm

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

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. Discussers will join poster discussion. We hope that poster discussion will be a great opportunity for active discussion, communication, and information exchange between JSI members and non-members.

Poster sessions are conducted online.

Please bring your pc or tablet pc, and a headset or earphone with a microphone if you participate on-site and deliver or view online poster presentations.

Portable Wi-Fi- routers are available for rent free of charge (refer to p.18).

You can deliver or view poster presentations anywhere except Room A.

Young Academy program

“Immunology lecture for clinicians – from basic science to vaccine applications –“

More people are interested in infectious response and vaccine development since the global pandemic of COVID-19 has changed our lifestyle dramatically. Indeed, vaccines and their development are remarkably progressing worldwide. Clinicians and researchers both need to have basic knowledge of immunology in the clinical care of COVID-19 patients. Even their area of expertise is far from immunology. Thus, in the 50th Annual meeting of JSI, young immunologists planed the lecture course to learn about basic immunology as a basis for the immune surveillance system of infectious diseases. This lecture course consists of two parts: 1) basic immunology including innate and adaptive immunity by Dr. Shigeo Koyasu from RIKEN, IMS, 2) recent vaccine development and mRNA vaccine by Dr. Ken J. Ishii from Institute of Medical Science, The University of Tokyo. Each talk will be provided for 35 min lecture and for 5 min Q&A.

(*Lectures will be presented in Japanese)

Sponsored Seminars

There will be three types of sponsored seminars: Technical Seminars, Clinical Seminars and Afternoon Seminars.

Technical and Clinical seminars will be held in the form of luncheon seminars. Please refer to “8. 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

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.

▶ Afternoon Seminars

These seminars aim to build a platform of development of immunologists who will be engaged in the next generation through close cooperation with companies. Companies add fresh dimensions to seminars by their unique idea.

8. Luncheon Seminar Ticket (Luncheon Seminars)

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

◆ Luncheon Seminar Ticket Desk

One ticket for one person on a day. 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: Foyer, 1F

Time: 8:00-11:30 (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.

9. Portable Wi-Fi Routers

Poster sessions are conducted online. On-site participants who need Wi-Fi internet connection can rent portable Wi-Fi routers free of charge.

Where to rent:	Registration Desk, Foyer, 1F	
Opening hours:	Dec. 8 (Wed)	17:00-19:45
	Dec. 9 (Thu)	17:30-19:30
	Dec. 10 (Fri)	15:00-17:00

[IMPORTANT]

- Routers must be returned on the day you rent.
- In case the router you rent is lost, damaged or submerged in water, you may be asked to compensate for it.
- Please bring your pc or tablet pc, and a headset or earphone with a microphone if you participate on-site and deliver or view online poster presentations.

10. Commercial Exhibition – Exhibition of Machineries and Reagents

Exhibitions of machineries and reagents will be held. There will 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 chance to win a special gift. Look forward to your participation in the stamp tally.

11. Get Together Party

Get together party will not be held this year.

12. Photographing and recording

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

13. Free Shuttle Bus

We provide a free shuttle bus service between JR Nara Station or Kintetsu Nara Station and the venue. Please refer the meeting website for bus stops and operation schedule.

The 50th Anniversary Commemoration Symposium

The 50th Anniversary Commemoration Symposium　Room A 15:25~17:25 December 8

50S. 日本免疫学会 50 周年記念シンポジウム

Chairpersons: 小安 重夫 (理化学研究所)
渋谷 彰 (筑波大学)

OD 50S-01
15:25~15:40
免疫学の夢
笹月 健彦　九州大学高等研究院

OD 50S-02
15:40~15:55
繋がり、広がる研究
稲葉 カヨ　京都大学

OD 50S-03
15:55~16:10
種の生存に不可欠な NKT 細胞の不思議
谷口 克　理化学研究所 生命医科学研究センター

OD 50S-04
16:10~16:25
がん免疫治療から見る免疫制御の謎
本庶 佑　京都大学大高等研究院

OD 50S-05
16:25~16:40
Interleukin6 と共に 50 年　ー関節炎から CAR-T 細胞そして COVID19 までー
岸本 忠三　大阪大学免疫学フロンティア研究センター免疫機能統御学講座

Overview Talk

Program for Overview Talks

8:30 ~ 9:00, Wednesday, December 8

OD OT01 Overview Talk 01 Room A: Noh Theater

Chairpersons: Sho Kitamoto (University of Michigan Medical School)
Naoko Ohtani (Osaka City University)

Orchestrating human pathology and physiology via host-microbiota interactions between the gut and distant organs

Sho Kitamoto The University of Michigan Medical School

8:30 ~ 9:00, Wednesday, December 8

OD OT02 Overview Talk 02 Room B: Conference Room1&2

Chairpersons: Yuki Kagoya (Aichi Cancer Center Research Institute)
Yosuke Togashi (Okayama University)

Understanding T cell states at molecular levels

Yuki Kagoya Division of Immune Response, Aichi Cancer Center Research Institute, Nagoya, Japan / Division of Cellular Oncology, Department of Cancer Diagnosis and Therapeutics, Nagoya University Graduate School of Medicine, Nagoya, Japan

8:30 ~ 9:00, Wednesday, December 8

OD OT03 Overview Talk 03 Room C: Conference Room 3&4

Chairpersons: Michio Miyajima (RIKEN)
Toshihiko Kobayashi (Research Institute National Center for Global Health and Medicine)

Immunometabolism

Michio Miyajima CENTER for Integrative Medical Sciences (IMS), RIKEN, Kanagawa, Japan

8:30 ~ 9:00, Wednesday, December 8

OD OT04 Overview Talk 04 Room D: Reception Hall 1

Chairpersons: Yasutaka Motomura (Osaka University)
Tetsuro Kobayashi (RIKEN)

Barrier Immunity in the homeostasis and pathogen defense

Tetsuro Kobayashi Innate Immune Systems, IMS, RIKEN, Yokohama, Japan

8:30 ~ 9:00, Thursday, December 9

OD OT05 Overview Talk 05 Room A: Noh Theater

Chairpersons: Ken Ishii (The University of Tokyo)
Galit Alter (Harvard Medical School)

SARS-CoV-2 immunity following natural infection and vaccination

Yoshimasa Takahashi National Institute of Infectious Diseases, Tokyo, Japan

8:30 ~ 9:00, Thursday, December 9

OD OT06 Overview Talk 06 Room B: Conference Room 1&2

Chairpersons: Akihiko Yoshimura (Keio University School of Medicine)
Takashi Satoh (Tokyo Medical and Dental University)

Inflammation Cellular Society in lung fibrosis

Kouji Matsushima Tokyo University of Science

8:30 ~ 9:00, Thursday, December 9

OD OT07 Overview Talk 07 Room C: Conference Room 3&4

Chairpersons: Keishi Fujio (The University of Tokyo)
Yukinori Okada (Osaka University)

Immune system variation induced by the genetic risk of autoimmunity

Kazuyoshi Ishigaki RIKEN Center for Integrative Medical Sciences, Laboratory for human immunogenetics

8:30 ~ 9:00, Thursday, December 9

OD OT08 Overview Talk 08 Room D: Reception Hall 1

Chairpersons: Masato Kubo (Tokyo University of Science • Riken IMS)
Saeko Nakajima (Kyoto University)

Recent advances of IgE, mast cells, and basophile

Masato Kubo Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science / Laboratory for Cytokine Regulation, Research Center for Integrative Medical Science (IMS), RIKEN Yokohama Institute

8:30 ~ 9:00, Thursday, December 9

OD OT09 Overview Talk 09 Room E: Reception Hall 2

Chairpersons: Kazuko Shibuya (University of Tsukuba)
Taku Okazaki (The University of Tokyo)

Recent advancements in understanding of regulatory mechanisms for anti-tumor immune responses

Taku Okazaki Institute for Quantitative Biosciences, The University of Tokyo, Tokyo, Japan

8:30 ~ 9:00, Friday, December 10

OD OT10 Overview Talk 10 Room A: Noh Theater

Chairpersons: Akinori Takaoka (Hokkaido University)
Sorimachi Noriko (Research Institute National Center for Global Health and Medicine)

Innate and adaptive immune responses to SARS-CoV-2 infection

Hiroyuki Oshiumi Department of Immunology, Faculty of Life Sciences, Kumamoto University

8:30 ~ 9:00, Friday, December 10

OD OT11 Overview Talk 11 Room B: Conference Room 1&2

Chairpersons: Akira Shibuya (University of Tsukuba)
Hisashi Arase (Osaka University)

Recent advances in innate lymphocyte research

Tsukasa Nabekura Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan / Department of Immunology, Faculty of Medicine, University of Tsukuba, Japan / R&D Center for Innovative Drug Discovery, University of Tsukuba, Japan

8:30 ~ 9:00, Friday, December 10

OD OT12 Overview Talk 12 Room C: Conference Room 3&4

Chairpersons: Kenji Kabashima (Kyoto University)
Atsushi Kumanogoh (Osaka University)

Recent advances in clinical application of cytokine research

Tsutomu Takeuchi Division of Rheumatology, Keio University School of Medicine.

8:30 ~ 9:00, Friday, December 10

OD OT13 Overview Talk 13 Room D: Reception Hall 1

Chairpersons: Isao Matsumoto (University of Tsukuba)
Masaru Ishii (Osaka University)

Autoimmunity and human Immunology

Isao Matsumoto Division of Rheumatology, Department of Internal Medicine, University of Tsukuba

8:30 ~ 9:00, Friday, December 10

OD OT14 Overview Talk 14 Room E: Reception Hall 2

Chairpersons: Toshiaki Ohteki (Tokyo Medical and Dental University)
Yumiko Oishi (Nippon Medical School)

Overview Talk

Tomohiko Tamura Yokohama City University Graduate School of Medicine

Symposium

Program for Symposia

Symposium 01 Room A 9:00~11:30 December 8

S01. Systemic organ interactions in health and disease

Chairpersons: Sho Kitamoto (University of Michigan Medical School)
Naoko Ohtani (Osaka City University)

S01-01
9:00~9:30

The Role of the Microbiome in Pancreatic Oncogenesis

Donnele Daley University of Michigan

OD S01-02
9:30~10:00

Microbiome centered therapies for fatty liver disease

Bernd Schnabl UC San Diego School of Medicine

S01-03
10:00~10:30

The role of gut microbiota in obesity-associated liver cancer development

Naoko Ohtani Graduate School of Medicine, Osaka City University

OD S01-04
10:30~11:00

Autonomic reflex by liver-brain-gut axis maintains the colonic Treg

Toshiaki Teratani Division of Gastroenterology and Hepatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan

OD S01-05
11:00~11:30

The oral cavity as a reservoir of pathogenic bacteria and immune cells in the gut pathology

Sho Kitamoto Department of Internal Medicine, University of Michigan Medical School

Symposium 02 Room B 9:00~11:30 December 8

S02. Redefining T cell exhaustion: dissecting heterogeneity and translation into immunotherapy ASI-JSI Joint Session

Chairpersons: Yuki Kagoya (Aichi Cancer Center Research Institute)
Yosuke Togashi (Okayama University)

S02-01
9:00~9:30

Fatty acid metabolism directs cell fate decision during the generation of memory CD4$^+$ T cells

Yusuke Endo Laboratory of Medical Omics Research, Kazusa DNA Research Institute / Department of Omics Medicine, Graduate School of Medicine, Chiba University

OD S02-02
9:30~10:00

Role of mTOR in T cell exhaustion

Koichi Araki Cincinnati Children's Hospital Medical Center, University of Cincinnati Department of Pediatrics

OD S02-03
10:00~10:30

Several “exhausted” T cells in the tumor microenvironment

Yosuke Togashi Department of Tumor Microenvironment, Okayama University, Graduate School of Medicine Dentistry and Pharmaceutical Sciences

OD S02-04
10:30~11:00

Long-term maintenance of T cell resonses in chronic infection and cancer

Axel Kallies Department of Microbiology and Immunology, The Peter Doherty Institute for Infection and Immunity, University of Melbourne, Melbourne, Australia

S02-05
11:00~11:30

CD69 regulates anti-tumor immunity

Motoko Kimura Graduate school of Medicine, Chiba University

Symposium 03 Room C 9:00~11:30 December 8

S03. A novel immune regulation governed by Immunometabolism

Chairpersons: Michio Miyajima (RIKEN)
Toshihiko Kobayashi (Research Institute National Center for Global Health and Medicine)

OD S03-01
9:00~9:30

Intersection of inflammation and metabolism; roles of endolysosome-resident amino acid transporters in immune responses

Toshihiko Kobayashi Research Institute, National Center for Global Health & Medicine (NCGM)

OD S03-02
9:30~10:00

Polyamine metabolism is a central determinant of helper T cell lineage fidelity

Erika Pearce Cancer Immunology Program Bloomberg~Kimmel Institute for Cancer Immunotherapy The Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins

OD S03-03
10:00~10:30

A novel B cell-derived metabolite elicits anti-inflammatory macrophages and limits anti-tumor cytotoxic responses

Sidonia Fagarasan Laboratory for Mucosal Immunity, Center for Integrative Medical Sciences, RIKEN / Division of Integrated High-Order Regulatory Systems, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine, Kyoto University

OD S03-04
10:30~11:00

How Tfr cells control plasma cell differentiation

Carola Vinuesa The Australian National University Canberra, Australia / The Francis Crick Insitute London, UK

OD S03-05
11:00~11:30

Visualization of oxygenase producing bioactive molecules by mass spectrometry imaging

Yuki Sugiura Department of Biochemistry, School of Medicine Keio Univesity

Symposium 04 Room D 9:00~11:30 December 8

S04. Barrier Immunity in the homeostasis and pathogen defense

Chairpersons: Yasutaka Motomura (Osaka University)
Tetsuro Kobayashi (RIKEN)

OD S04-01
9:00~9:30

Immune response to SARS-CoV-2

Akiko Iwasaki Yale University School of Medicine / Howard Hughes Medical Institute

OD S04-02
9:30~10:00

Determining the state of type 2 innate immune response in the lung in old age

Aki Minoda Laboratory for Cellular Epigenome, Center for Integrative Medical Sciences, RIKEN

OD S04-03
10:00~10:30

Skin local activation of TGFb shapes antigen-specific memory CD8$^+$ T cell pool for optimal skin defense

Toshiro Hirai Departments of Dermatology and Immunology, University of Pittsburgh, Pittsburgh / Vaccine Creation Group, BIKEN Innovative Vaccine Research Alliance Laboratories, Institute for Open and Transdisciplinary Research Initiatives/Research Institute for Microbial Diseases, Osaka University, Osaka, Japan

S04-04
10:30~11:00

The role of staphylococcal quorum sensing in the pathogenesis of skin and systemic infections

Yumi Matsuoka-Nakamura Cutaneous Immunology, Immunology Frontier Research Center, Osaka University

OD S04-05
11:00~11:30

Disruption of host-microbial symbiosis results in inflammatory destruction of the hair follicles

Keisuke Nagao National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health

Symposium 05 Room A 9:00~11:30 December 9

S05. Neo-Immunology by COVID-19 vaccine R&D SFI-JSI, GFI-JSI, and KAI-JSI Joint Session

Chairpersons: Ken Ishii (The University of Tokyo)
Galit Alter (Harvard Medical School)

OD S05-01
9:00~9:30

Nucleoside-modified mRNA-LNP therapeutics

Drew Weissman University of Pennsylvania

OD S05-02
9:30~10:00

***Mycobacterium Tuberculosis*-specific Tbet^{+} CD4^{+} memory T cells contribute to trained immunity against cancer and viral infection**

Burcu Temizoz Division of Vaccine Science, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

OD S05-03
10:00~10:30

Development of mucosal immunity-inducing prime-boost vaccine

Satoshi Uematsu Department of Immunology and Genomics, Metagenome Analysis Research Center, Osaka City University Graduate School of Medicine / Division of Metagenome Medicine, Human Genome Center, The Institute of Medical Science, The University of Tokyo

OD S05-04
10:30~11:00

Distinct systemic and mucosal immune responses during acute SARS-CoV-2 infection

James P. Di Santo Innate Immunity Unit, Institut Pasteur, Inserm U1223, Paris, France

S05-05
11:00~11:30

Defining Correlates of Immunity against SARS-CoV-2

Galit Alter Harvard Medical School, USA

Symposium 06 Room B 9:00~11:30 December 9

S06. Inflammation, tissue repair, and fibrosis

Chairpersons: Akihiko Yoshimura (Keio University School of Medicine)
Takashi Satoh (Tokyo Medical and Dental University)

OD S06-01
9:00~9:30

Fibrosis in Nonalcoholic steatohepatitis (NASH)

David Brenner UC San Diego

OD S06-02
9:30~10:00

Development of robust scRNA-seq method TAS-Seq and investigation of the roles of interstitial macrophages in pulmonary fibrosis

Shigeyuki Shichino Division of Molecular Regulation of Inflammatory and Immune Diseases, Institute of Biomedical Sciences, Tokyo University of Science, Chiba, Japan

S06-03
10:00~10:30

Multimodal analysis of regeneration process in intestinal tissues

Toshiro Sato Keio University School of Medicine

S06-04
10:30~11:00

Macrophage diversity that regulates skeletal muscle regeneration

Yumiko Oishi Department of Biochemistry and Molecular Biology, Nippon Medical School, Japan

OD S06-05
11:00~11:30

Decoding macrophage phenotypes in health and disease

Christopher Glass University of California San Diego, La Jolla CA, USA

Symposium 07 Room C 9:00~11:30 December 9

S07. System immunology approach for immune regulation research

Chairpersons: Keishi Fujio (The University of Tokyo)
Yukinori Okada (Osaka University)

OD S07-01
9:00~9:30

Statistical genetics, disease biology, drug discovery, and personalized medicine

Yukinori Okada Department of Statistical Genetics, Osaka University Graduate School of Medicine, Osaka, Japan.

OD S07-02
9:30~10:00

Approach to immune-mediated disease by functional genome analysis

Keishi Fujio Department of Allergy and Rheumatology, The University of Tokyo, Japan

OD S07-03
10:00~10:30

Metagenome analysis leads a paradigm shift in health/medical care

Seiya Imoto Human Genome Center, The Institute of Medical Science, The University of Tokyo

OD S07-04
10:30~11:00

Neutrophil heterogeneity and autoimmunity

Mariana Kaplan National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health

S07-05
11:00~11:30

Massively Multiplexed Analysis of Immunobiology

Sean C. Bendall Department of Pahology. Stanford University School of Medicine

Symposium 08 Room D 9:00~11:30 December 9

S08. Next advances in Allergic research JSA-JSI Joint Session

Chairpersons: Masato Kubo (Tokyo University of Science・Riken IMS)
Saeko Nakajima (Kyoto University)

OD S08-01
9:00~9:30

Neuroimmune Regulation of Itch

Brian Kim Washington University School of Medicine

OD S08-02
9:30~10:00

Crosstalk between skin resident commensals and host immune system in the pathogenesis of inflammatory skin diseases

Saeko Nakajima Kyoto University Graduate School of Medicine, Kyoto, Japan

OD S08-03
10:00~10:30

A pathogenic role of IL-13 in anaphylaxis

Takanori Sasaki Research Institute for Biomedical Sciences, Tokyo University of Science, Tokyo, Japan / Harvard Medical School/Brigham and Women's Hospital, Boston, MA, USA / Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan

S08-04
10:30~11:00

Two Sides of the Coin: Mast Cells as a Key Regulator of Allergy and Inflammation

Yosuke Kurashima Department of Innovative Medicine, Graduate School of Medicine, Chiba University, Chiba, Japan / Department of Mucosal Immunology, The University of Tokyo Distinguished Professor Unit, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan / International Research and Development Center for Mucosal Vaccines, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

S08-05
11:00~11:30

Macrophage Biology: From Development to Functions

Florent Ginhoux Singapore Immunology Network (SIgN) / Agency for Science, Technology and Research (A*STAR)

Symposium 09 Room E 9:00~11:30 December 9

S09. Regulation of anti-tumor immune responses ASI-JSI Joint Session

Chairpersons: Kazuko Shibuya (University of Tsukuba)
Taku Okazaki (The University of Tokyo)

OD S09-01
9:00~9:30

Tumor-derived soluble CD155 inhibits DNAM-1-mediated tumor immunity

Kazuko Shibuya Department of Immunology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

OD S09-02
9:30~10:00

Force-driven tumor immunotherapy

Bo Huang Chinese Academy of Medical Sciences & Peking Union Medical College

S09-03
10:00~10:30

Regulatory mechanisms of T cell activation by immuno-inhibitory co-receptors

Taku Okazaki Laboratory of Molecular Immunology, Institute for Quantitative Biosciences, The University of Tokyo, Tokyo, Japan

OD S09-04
10:30~11:00

Immunosuppression by regulatory T cells in the tumor microenvironment

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

OD S09-05
11:00~11:30

Engineering Chimeric Antigen Receptor T cells to engage host immunity

Paul Beavis Peter MacCallum Cancer Centre, Melbourne, Australia

Symposium 10 Room A 9:00~11:30 December 10

S10. Innate and adaptive immunities against viral infection including COVID-19 KAI-JSI, and DGFI-JSI Joint Session

Chairpersons: Akinori Takaoka (Hokkaido University)
Noriko Sorimachi (Research Institute National Center for Global Health and Medicine)

S10-00
9:30~9:31

Introduction

Akinori Takaoka Division of Signaling in Cancer and Immunology, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan

S10-01
9:31~10:01

Understanding the pathogenesis of COVID-19 based on pathological perspectives

Tadaki Suzuki Department of Pathology, National Institute of Infectious Diseases

OD S10-02
10:01~10:29

Innate recognition of SARS-CoV-2 in human lung cells

Akinori Takaoka Division of Signaling in Cancer and Immunology, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan

OD S10-03
10:29~10:59

Phenotypes and functions of SARS-CoV-2-specific T cells

Eui-Cheol Shin Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Korea

OD S10-04
10:59~11:29

T cell immunity and development of a peptide-based vaccine to combat COVID-19

Juliane Walz Clinical Collaboration Unit Translational Immunology, German Cancer Consortium (DKTK), Department of Internal Medicine, University Hospital Tübingen, Tübingen, Germany / Institute for Cell Biology, Department of Immunology, University of Tübingen, Tübingen, Germany / Cluster of Excellence iFIT (EXC218) "Image-Guided and Functionally Instructed Tumor Therapies", University of Tübingen, Tübingen, Germany / Dr. Margarete Fischer-Bosch Institute of Clinical Pharmacology and Robert Bosch Center for Tumor Diseases (RBCT), Stuttgart, Germany

OD S10-05
11:29~11:59

Surprises in science – lessons from COVID-19

Ivan Dikic Goethe University Frankfurt

S10-99
11:59~12:00

Closing Remarks

Noriko Sorimatchi Research Institute National Center for Global Health and Medicine

Symposium 11 Room B 9:00~11:30 December 10

S11. Recent advances in innate lymphocyte research US-Japan Immunology Program Co-organized Session

Chairpersons: Akira Shibuya (University of Tsukuba)
Hisashi Arase (Osaka University)

OD S11-1
9:00~9:30

Epigenetic control of NK cells in host immunity

Joseph Sun Memorial Sloan Kettering Cancer Center

OD S11-2
9:30~10:00

Dynamics of Natural Killer Cell Responses and Generation of Memory during Cytomegalovirus Infection

Lewis Lanier University of California San Francisco

OD S11-3
10:00~10:30

Protective role of type 1 innate lymphoid cells in acute liver injury

Tsukasa Nabekura Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan / Department of Immunology, Faculty of Medicine, University of Tsukuba, Japan / R&D Center for Innovative Drug Discovery, University of Tsukuba, Japan

S11-4
10:30~11:00

Fibroblast-derived IL-33 causes pulmonary fibrosis via activation of ILC2

Kazuyo Moro Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University / Laboratory for Innate Immune Systems, RIKEN-IMS

OD S11-5
11:00~11:30

Interaction of innate lymphoid cells and bacteria - important mediator for the host defense -

Naoko Satoh-Takayama Laboratory for Intestinal Ecosystem, RIKEN Center for Integrative Medical Sciences (IMS)

Symposium 12 Room C 9:00~11:30 December 10

S12. Recent advances in clinical application of cytokine research

Chairpersons: Kenji Kabashima (Kyoto University)
Atsushi Kumanogoh (Osaka University)

S12-1
9:00~9:30

IL-17 family cytokines in health and diseases

Chen Dong Institute for Immunology, Tsinghua University, Beijing, China.

OD S12-2
9:30~10:00

Caspase-1–mediated secretion of mitochondrial DNA-rich exosomes causes pathological inflammation in a human chronic inflammatory disorder

Hyota Takamatsu Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University / Department of Immunopathology, WPI, Immunology Frontier Research Center (iFReC), Osaka University

OD S12-3
10:00~10:30

Further application of IL-6-targeting therapy for cytokine storms by COVID-19, CAR-T cell therapy and other diseases

Sujin Kang Laboratory of Immune Regulation, iFReC, Osaka University

S12-4
10:30~11:00

Complex immune dysregulation in patients with autoinflammatory disease and IFN signatures

Raphaela Goldbach-Mansky MHS, Translational Autoinflammatory Diseases Section (TADS), LCIM, NIAID, NIH, Bethesda, MD, USA

OD S12-5
11:00~11:30

Neuroimmune Regulation of Itch

Brian Kim Washington University School of Medicine, USA

Symposium 13 Room D 9:00~11:30 December 10

S13. Autoimmunity and Human Immunology JCR-JSI Joint Session

Chairpersons: Isao Matsumoto (University of Tsukuba)
Masaru Ishii (Osaka University)

OD S13-01
9:00~9:30

T cell functions in spontaneous and iatrogenic autoimmune arthritis

Deepak A. Rao Division of Rheumatology, Inflammation, Immunity, Brigham and Women's Hospital and Harvard Medical School

OD S13-02
9:30~10:00

Identification of an arthritis-associated osteoclast precursor macrophage: pathogenesis and treatment

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

S13-03
10:00~10:30

Balancing tolerance and immunity in response to B cell receptor stimulation

Julie Zikherman University of California, San Francisco (UCSF) Medical Center, USA

S13-04
10:30~11:00

Mechanistic insight of impaired function of PD-1+ follicular regulatory T cells in systemic lupus erythematosus

Isao Matsumoto Division of Rheumatology, Department of Internal Medicine, University of Tsukuba

OD S13-05
11:00~11:30

IFNα producing cells in patients with systemic lupus erythematosus patients

Sachiko Miyake Department of Immunology, Juntendo University Graduate School of Medicine

S14. Myeloid cells: new developmental mechanism and function

Chairpersons: Toshiaki Ohteki (Tokyo Medical and Dental University)
Yumiko Oishi (Nippon Medical School)

OD S14-01
9:00~9:30

Diversity and plasticity of microglia in mice and human

Takahiro Masuda Department of Molecular and System Pharmacology, Graduate School of Pharmaceutical Sciences, Kyushu University

S14-02
9:30~10:00

Macrophage diversity in cardiovascular homeostasis and multimorbidity

Ichiro Manabe Chiba University Graduate School of Medicine

S14-03
10:00~10:30

Monocytes in the Prediction of Response to Immunotherapy

Catherine Hedrick La Jolla Institute for Immunology

OD S14-04
10:30~11:00

The transcription factor IRF8 and chromatin in the regulation of myeloid cell development

Tomohiko Tamura Department of Immunology, Yokohama City University Graduate School of Medicine, Yokohama, Japan

OD S14-05
11:00~11:30

Selective ablation of cDC2 specification by -165 *Zeb2* enhancer mutations

Ken Murphy Department of Pathology and Immunology, Washington University School of Medicine

Workshop

◯ : Presenter

December 8

WS1 Tolerance and Immune Suppression

12:55~14:10 Room A

Chairpersons: Shunsuke Chikuma, Miyuki Azuma

Immune tolerance is crucial mechanisms for maintaining homeostasis and preventing excess immune responses against self- and nonself-antigens. Tolerance is coordinately regulated by cell-intrinsic and -extrinsic mechanisms, such as co-inhibitory receptor signals, transcription factors, and regulatory T and myeloid cells. In this session, we will first focus on co-signal receptors (CTLA-4, LAG-3, CD86) in T- and B-cell tolerance, and then move to topics of multifaceted regulatory mechanisms by Foxp3+ regulatory T cells at the various organs and tissues. Finally, we will discuss recent concepts of immune suppression mediated by metabolites and nutritional signaling in physiological and/or pathological conditions of tissue-specific micro-environments. We appreciate active participations and discussions for facilitating our comprehensive understanding on tolerance and immune suppression.

1-A-WS1-01-O/P

Aire suppresses CTLA-4 expression from medullary thymic epithelial cells to avoid autoimmunity

◯ Junko Morimoto[1)], Minoru Matsumoto[1)], Ryuichiro Miyazawa[1)], Hideyuki Yoshida[2)], Mitsuru Matsumoto[1)]

Division of Molecular Immunology, Institute for Enzyme Research, Tokushima University, Tokushima, Japan[1)], YCI Laboratory for Immunological Transcriptomics, RIKEN Center for Integrative Medical Science, Yokohama, Japan[2)]

1-A-WS1-02-O/P

LAG-3 engagement with stable pMHCII is essential for the exertion of its inhibitory function

◯ Takumi Maruhashi, Daisuke Sugiura, Il-mi Okazaki, Kenji Shimizu, Taku Okazaki

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

1-A-WS1-10-O/P

Role of Ten-eleven translocation (Tet) in B cell self-tolerance

◯ Shinya Tanaka[1)], Wataru Ise[2)], Tomohiro Kurosaki[2, 3)], Yoshihiro Baba[1)]

Division of Immunology and Genome Biology, Department of Moleuclar Genetics, Medical Institute of Bioregulation, Kyushu University[1)], Laboratory of Lymphocyte Differentiation, WPI Immunology Frontier Research Center, Osaka University[2)], Laboratory of Lymphocyte Differentiation, RIKEN Center for Integrative Medical Sciences[3)]

1-A-WS1-11-O/P

Foxp3 changes its genomic binding sites following BATF-dependent effector differentiation of Treg cells

◯ Ryuichi Murakami, Shohei Hori

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

1-A-WS1-13-O/P

Harnessing immunity by manipulation of the flanking residues of self-dominant peptide regulating its binding capacity with MHC that determined the stability of tissue antigen-specific regulatory T cells

◯ Youwei Lin[1, 2)], Takashi Yamamura[2)]

Department of Neurology, National Center Hospital, National Center of Neurology and Psychiatry[1)], Department of Immunology, National Institute of Neuroscience, National Center of Neurology and Psychiatry[2)]

1-A-WS1-15-O/P

Proenkephalin$^+$ regulatory T cells expanded by ultraviolet B exposure maintain skin homeostasis with a healing function

◯ Hiroaki Shime[1)], Mizuyu Odanaka[1)], Makoto Tsuiji[2)], Masaki Imai[1)], Yoshiaki Yasumizu[3)], Ryuta Uraki[1)], Anthony JB[4)], Hidehiro Fukuyama[5)], Naganari Ohkura[3, 6)], Shimon Sakaguchi[3)], Akimichi Morita[7)], Sayuri Yamazaki[1)]

Department of Immunology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan[1)], Department of Microbiology, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan[2)], Department of Experimental Immunology, World Premier International Research Center Initiative, Immunology Frontier Research Center, Osaka University, Osaka, Japan[3)], Immunoassay Research and Development, Laboratory Diagnostics, Siemens Healthineers, Tarrytown, NY, USA[4)], Laboratory for Lymphocyte Differentiation, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan[5)], Immunopharmaceutical Development Unit, Center of Medical Innovation Research, Graduate School of Medicine, Osaka University, Osaka, Japan[6)], Department of Geriatric and Environmental Dermatology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan[7)]

1-A-WS1-21-O/P

Lactic acid signaling induces the expression of immune checkpoints by regulatory T cells in the tumor microenvironment

◯ Shogo Kumagai[1, 2)], Shohei Koyama[2)], Hiroyoshi Nishikawa[2)]

Division of cell signaling, Research Institute, National Cancer Center[1)], Division of cancer immunology, Research Institute, National Cancer Center[2)]

1-A-WS1-22-O/P

The importance of nutritional signals in regulating oral tolerance

◯ Motoyoshi Nagai[1, 2)], Takuma Okawa[1, 2)], Kazuaki Nakata[1)], Koji Hase[2)], Yuki Kawamura[1)]

Department of Gastroenterology, Research Center for Hepatitis and Immunology, Research Institute, National Center for Global Health and Medicine, Chiba, Japan[1)], Division of Biochemistry, Faculty of Pharmacy and Graduate School of Pharmaceutical Science, Keio University, Tokyo, Japan[2)]

WS2 Innate immunity

12:55~14:10 Room B

Chairpersons: Sho Yamasaki, Miwa Sasai

The study of innate immunity has made considerable progress in the past two decades. It has become clear that an infection by microbes, viruses, and other organisms induces a prompt immune response that leads to inflammation as a host defense response. Innate immunity has also been shown to induce sterile inflammation in response to tissue damage, ischemia, and stress. However, its precise regulatory mechanisms are not fully understood. In this session, we will discuss recent discoveries that revealed novel aspects of the regulation of innate immunity in physiological/pathological settings.

1-B-WS2-04-O/P

Myeloid cell dynamics predict clinical outcome of severe COVID-19

◯ Takayuki Matsumura, Tomohiro Takano, Yu Adachi, Kazutaka Terahara, Saya Moriyama, Taishi Onodera, Ayae Nishiyama, Yoshimasa Takahashi

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

1-B-WS2-07-O/P

The dynamics and roles of Innate lymphoid cells (ILCs) in pulmonary fibrosis

◯ Natsuko Otaki[1, 2, 3, 4)], Yasutaka Motomura[3, 5, 6)], Shigeo Koyasu[3)], Kouichiro Asano[7)], Kazuyo Moro[3, 5, 6, 8)], Tommy Terooatea[3)]

Graduate School of Medicine, Chiba University, Chiba, Japan [1)], Research Center for Advanced Science and Technology (RCAST), The University of Tokyo, Tokyo, Japan[2)], RIKEN Center for Integrative Medical Science (IMS), Kanagawa, Japan[3)], Keio University School of Medicine, Tokyo, Japan[4)], Graduate School of Medicine, Osaka University, Osaka, Japan[5)], Immunology Frontier Research Center (iFReC), Osaka University, Osaka, Japan[6)], Department of Medicine, Tokai University, School of Medicine, Kanagawa, Japan[7)], Graduate School of Frontier Biosciences, Osaka University, Osaka, Japan[8)]

1-B-WS2-09-O/P

GRIM-19 is a target of mycobacterial Zn^{2+} metalloprotease 1 and indispensable for NLRP3 inflammasome activation

◯ Tomomi Kurane[1)], Masayuki Umemura[1, 2, 3)], Masaaki Nakayama[4)], Naoya Ohara[4)], Goro Matsuzaki[1, 2, 3)], Giichi Takaesu[1, 2, 3)]

Department of Host Defense, Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan.[1)], Molecular Microbiology Group, Tropical Biosphere Research Center, University of the Ryukyus, Okinawa, Japan.[2)], Advanced Medical Research Center, Faculty of Medicine, University of the Ryukyus, Okinawa, Japan.[3)], Department of Oral Microbiology, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, Okayama, Japan.[4)]

1-B-WS2-10-O/P

A point mutation within the function-to-find domain (FIIND) of human NLRP1 causes an autoinflammatory disease involving liver fibrosis and dyskeratosis

◯ Akie Maehara[1)], Taiki Ando[1, 2)], Kumi Izawa[1)], Tomoaki Ando[1)], Ayako Kaitani[1)], Anna Kamei[1, 3)], Hexing Wang[1, 3)], Koji Tokushige[1, 3)], Nobuhiro Nakano[1)], Naoto Tamura[2)], Ko Okumura[1)], Jiro Kitaura[1, 3)]

Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine[1)], Department of Internal Medicine and Rheumatology, Juntendo University School of Medicine[2)], Department of Science of Allergy and Inflammation, Juntendo University Graduate School of Medicine[3)]

1-B-WS2-13-O/P

LINE-1 activation in the cerebellum drives cerebellar ataxia

◯ Takehiro Takahashi[1)], Eriko Kudo[1)], Eric Song[1)], Fernando Carvalho[1)], Yong Kong[1)], Annsea Park[1)], Yuki Yasumoto[2)], Milan Stoiljkovic[2)], Xiao-Bing Gao[2)], Klara Szigeti-Buck[2)], Tamas Horvath[2)], Akiko Iwasaki[1, 3)]

Yale University School of Medicine, Department of Immunobiology[1)], Yale University School of Medicine, Department of Comparative Medicine, Program in Integrative Cell Signaling and Neurobiology[2)], Howard Hughes Medical Institute[3)]

1-B-WS2-16-O/P

N-glycan in the hMD-1 plays a key role on the cell surface expression of hRP105

◯ Mrityunjoy Biswas, Tatsuya Yamazaki, Susumu Tomono, Masanori Inui, Sachiko Akashi-Takamura
Deptartment of Microbiology and Immunology, Aichi Medical University, Aichi, Japan.

1-B-WS2-21-O/P

Unique location in the immunoproteasome complex of a variant causing proteasome-associated autoinflammatory syndrome with immunodeficiency

Jun Hamazaki[1)], ◯ Nobuo Kanazawa[2)], Hiroaki Hemmi[3)], Noriko Kinjo[4)], Hidenori Ohnishi[5)], Hiroyuki Mishima[6)], Akira Kinoshita[6)], Tsunehiro Mizushima[7)], Shigeo Murata[1)], Koh-ichiro Yoshiura[6)], Tsuneyasu Kaisho[8)]
Laboratory of Protein Metabolism, Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan[1)], Department of Dermatology, Hyogo College of Medicine, Hyogo, Japan[2)], Laboratory of Immunology, Faculty of Veterinary Medicine, Okayama University of Science, Ehime, Japan[3)], Department of Child Health and Welfare (Pediatrics), Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan[4)], Department of Pediatrics, Graduate School of Medicine, Gifu University, Gifu, Japan[5)], Department of Human Genetics, Atomic Bomb Disease Institute, Nagasaki University, Nagasaki, Japan[6)], Department of Life Science, Picobiology Institute, Graduate School of Life Science, University of Hyogo, Hyogo, Japan[7)], Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Wakayama, Japan[8)]

1-B-WS2-29-O/P

Translationally-controlled tumor protein (TCTP) released by tumor cells orchestrates dynamics of myeloid-derived suppressor cells in the tumor microenvironment

◯ Sho Hangai, Hideyuki Yanai, Tadatsugu Taniguchi
Department of Inflammology, Research Center for Advanced Science and Technology, The University of Tokyo, Tokyo, Japan

1-B-WS2-33-O/P

Anti-TLR7 antibody protects against lupus nephritis in NZBWF1 mice by targeting B cells and patrolling monocytes

◯ Ryutaro Fukui[1)], Yusuke Murakami[1, 2)], Reika Tanaka[1)], Yuji Motoi[1)], Atsuo Kanno[1)], Ryota Sato[1)], Hirofumi Amano[3)], Naomi Yamashita[2)], Kensuke Miyake[1)]
Division of Innate Immunity, The Institute of Medical Science, The University of Tokyo[1)], Research Institute of Pharmaceutical Sciences, Musashino University[2)], Department of Internal Medicine and Rheumatology, Juntendo University[3)]

WS3 Hematopoiesis and Immune Environment

12:55~14:10 Room C

Chairpersons: Takako Hirata, Tomoya Katakai

Hematopoiesis in the bone marrow is the primary source of immune cells and is regulated by a diverse cellular microenvironment that supports hematopoietic stem cell maintenance and immune cell development. Whereas most lineages mature in the bone marrow, T cell development occurs in the thymus. The secondary lymphoid organs, such as the lymph nodes and spleen, are prominent sites where immune responses are initiated. Recent advances in lineage tracing models and single-cell transcriptional analyses revealed a “layered” organization of hematopoiesis, with fetal immune cells contributing to some populations that persist throughout adulthood. In this session, we will discuss the cellular and molecular mechanisms involved in hematopoiesis and immune response in each lymphoid organ and their regulation by the stromal-cell microenvironment, as well as their alterations during infection, aging, and malignancy.

1-C-WS3-01-O/P

Post-transcriptional regulation of hematopoietic stem and progenitor cell lineage priming by RNases Regnase-1/-3 via *Nfkbiz* mRNA decay

◯ Takuya Uehata[1)], Daisuke Ori[2)], Masaki Miyazaki[3)], Amir Giladi[4)], Tomokatsu Ikawa[5)], Hiroshi Kawamoto[3)], Ido Amit[4)], Osamu Takeuchi[1)]
Graduate School of Medicine, Kyoto University, Kyoto, Japan[1)], Graduate School of Science and Technology, Nara Institute of Science and Technology (NAIST), Nara, Japan[2)], Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan[3)], Department of Immunology, Weizmann Institute of Science, Rehovot, Israel[4)], Research Institute for Biomedical Sciences, Tokyo University of Science, Chiba, Japan[5)]

1-C-WS3-02-O/P

Myeloid-like B cells boost emergency myelopoiesis during infection

◯ Masashi Kanayama, Yuta Izumi, Toshiaki Izumi
Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University (TMDU), Tokyo, Japan,

1-C-WS3-03-O/P

Emergence and divergence of blood cells in evolution by 'On' and 'Off' of CEBPa

◯ Yosuke Nagahata[1, 2)], Kyoko Masuda[1)], Tomokatsu Ikawa[3)], Hiroshi Kawamoto[1)]

Laboratory of Immunology, Institute for Frontier Life and Medical Sciences, Kyoto University[1)], Department of Hematology and Oncology, Graduate School of Medicine, Kyoto University[2)], Laboratory of Immunobiology, Tokyo University of Science[3)]

1-C-WS3-05-O/P

Postnatal behavior of fetal lymphoid cells identified with a novel Rag2 lineage tracing system

◯ Keiko Fujisaki[1)], Miyama Takeda[1)], Masako Tsuru[1)], Shogo Okazaki[1)], Shuhei Ogawa[2)], Seiya Mizuno[3)], Satoru Takahashi[3)], Ryo Goitsuka[1)]

Division of Cell Fate Regulation, Research Institute for Biomedical Sciences, Tokyo University of Science[1)], Division of Integrated Research, Research Institute for Biomedical Sciences, Tokyo University of Science[2)], Transborder Medical Research Center, University of Tsukuba[3)]

1-C-WS3-10-O/P

RANKL$^+$ cells in the primary ossification center contributes to perinatal bone marrow development

◯ Eriko Sumiya, Shinichiro Sawa

Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

1-C-WS3-13-O/P

A *do novo* missense mutation of *Bcl11b* gene causes an abnormal thymopoiesis

◯ Kazuki Okuyama[1)], Motoi Yamashita[1, 2)], Kazuaki Matsumoto[1, 2)], Michiko Ohno-Oishi[1, 3)], Satoshi Kojo[1, 4)], Tomohiro Morio[2)], Hideyuki Yoshida[5)], Ichiro Taniuchi[1)]

Laboratory for Transcriptional Regulation, IMS, RIKEN Yokohama[1)], Department of Pediatrics and Developmental Biology, TMDU[2)], Department of Ophthalmology, Tohoku University Graduate School of Medicine[3)], Division of Mucosal Immunology, MIB, Kyushu University[4)], YCI Laboratory for Immunological Transcriptomics, IMS, RIKEN Yokohama[5)]

1-C-WS3-16-O/P

The transcription factor Sox4 is required for thymic tuft cell development

◯ Nanami Mino[1, 2)], Ryunosuke Muro[1)], Takeshi Nitta[1)], Hiroshi Takayanagi[1)]

Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[1)], Department of Allergy and Rheumatology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[2)]

1-C-WS3-17-O/P

Differential requirement of Rap1 and integrin adaptors for distinct modalities of T cell adhesion under shear flow

◯ Yuji Kamioka, Yoshihiro Ueda, Naoyuki Kondo, Tatsuo Kinashi

Dept. of Molecular Genetics, Institute of Biomedical Science, Kansai Medical University, Osaka, Japan

WS4 T cell antigen-recognition, activation, and effector differentiation 12:55~14:10 Room D

Chairpersons: Sayama Ishihara, Tadashi Yokosuka

T cells, including innate ones, play as a leader in the variety of immune responses by regulating more kinds of other immune cells. Therefore, the research unveiling unexplored nature of T cells, particularly its mutual relationship with other physiological systems, such as metabolism and endocrine, has been more and more focused on. Initiation of T cell activation is first introduced by the efficient recognition of antigen peptides bearing on MHCs through TCRs, possessing the diversified repertoires, then the TCR signaling succeeds into various branches in its downstream. In the recent concepts, TCR signaling includes not only its direct downstream but also the other signaling via costimulatory, innate and cytokine receptors and adhesion molecules. We have 9 talks (6 minute-talk and 2 minute-discussion) and 24 posters and hope active participation and discussions.

1-D-WS4-02-O/P

Construction of a platform to predict HLA-DRB1*04:05-binding peptides trained by query learning

◯ Keiko Udaka, Morito Chabata

Department of Immunology, School of Medicine, Kochi University

1-D-WS4-04-O/P

Comprehensive TCR-function analysis in TILs of breast cancer revealed multiple tumor-reactive MR1-restricted TCRs.

◯ Hiroyuki Kishi[1)], Satoshi Yamaguchi[2)], Hiroshi Hamana[1)], Kiyomi Shitaoka[3)], Takuya Nagata[4)], Eiji Kobayashi[1)], Tatsuhiko Ozawa[1)], Atsushi Muraguchi[1)]

Department of Immunology, Faculty of Medicine, Academic Assembly, University of Toyama[1)], Department of 1st Internal Medicine, Faculty of Medicine, Academic Assembly, University of Toyama[2)], Department of Immunology, Graduate School of Miomedical and Health Sciences, Hiroshima University[3)], Ohashi Hospital, Toho University[4)]

1-D-WS4-09-O/P

Uncovering a novel role of PLCβ4 in selectively mediating TCR signaling in CD8⁺ but not CD4⁺ T cells

◯ Miwa Sasai[1, 2], Masahiro Yamamoto[1, 2, 3]

Laboratory of Immunoparasitology, World Premier International Immunology Frontier Research Center, Osaka University[1], Department of Immunoparasitology, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan[2], Division of Microbiology and Immunology, Center for Infectious Disease Education and Research, Osaka University[3]

1-D-WS4-10-O/P

SCD2-mediated monounsaturated fatty acid metabolism regulates cGAS-STING-dependent type I IFN responses in CD4⁺ T cells

◯ Toshio Kanno[1], Takahiro Nakajima[1], Toshinori Nakayama[2], Yusuke Endo[1]

Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, Kisarazu, Chiba, Japan.[1], Department of Immunology, Graduate School of Medicine, Chiba University, Chuo-ku, Chiba, Japan.[2]

1-D-WS4-12-O/P

PD-1 preferentially inhibits the activation of low affinity T cells

◯ Kenji Shimizu, Daisuke Sugiura, Il-mi Okazaki, Takumi Maruhashi, Taku Okazaki

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

1-D-WS4-13-O/P

LAG-3-mediated trogoytosis of MHC class II indirectly regulates CD4⁺ T cell activation

◯ Ei Wakamatsu, Hiroaki Machiyama, Hiroko Toyota, Masae Furuhata, Hitoshi Nishijima, Arata Takeuchi, Tadashi Yokosuka

Department of Immunology, Tokyo Medical University

1-D-WS4-21-O/P

Regulation of layered T cell tolerance mechanisms by the NR4A family

◯ Ryosuke Hiwa[1], Hailyn V. Nielsen[1], James L. Mueller[1], Ravi Mandla[2], Julie Zikherman[1]

Division of Rheumatology, Rosalind Russell and Ephraim P. Engleman Arthritis Research Center, Department of Medicine, University of California, San Francisco, CA, USA[1], Cardiology Division, Department of Medicine, University of California, San Francisco, CA, USA[2]

1-D-WS4-23-O/P

Contribution of T cell receptor- and Interleukin-2-signaling to the coordination of Treg-associated enhancer landscape

Gen Kondoh[1], Keiji Hirota[1], Naganari Ohkura[2], Shimon Sakaguchi[2, 3], ◯ Ryoji Kawakami[2, 3], Yohko Kitagawa[2, 3], Kelvin Y. Chen[2], Masaya Arai[2], Daiya Ohara[1], Yamami Nakamura[2], Keiko Yasuda[2, 3], Motonao Osaki[2, 3], Norihisa Mikami[2, 3], Caleb A. Lareau[4], Hitomi Watanabe[1]

Laboratory of Integrative Biological Science, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan[1], Department of Experimental Immunology, Immunology Frontier Research Center(IFReC), Osaka University, Osaka, Japan[2], Department of Experimental Pathology, Institute for Frontier Life and Medical Sciences, Kyoto university, Kyoto, Japan[3], Departments of Genetics and Pathology, Stanford University, Stanford CA, USA[4]

1-D-WS4-32-O/P

Mucosal-associated invariant T cells have therapeutic potential against autoimmune uveitis

Satoshi Yamana[1], ◯ Kensuke Shibata[1, 2, 3], Eiichi Hasegawa[1], Mitsuru Arima[1], Shotaro Shimokawa[1], Nobuyo Yawata[1], Atsunobu Takeda[1], Sho Yamasaki[3, 4, 5, 6], Koh-Hei Sonoda[1]

Department of Ophthalmology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan[1], Department of Microbiology and Immunology, Graduate School of Medicine, Yamaguchi University, Yamaguchi, Japan[2], Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan[3], Laboratory of Molecular Immunology, Immunology Frontier Research Center, Osaka University, Osaka, Japan[4], Division of Molecular Design, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan[5], Division of Molecular Immunology, Medical Mycology Research Center, Chiba University, Chiba, Japan[6]

WS5 T cell immunity in cancer

12:55~14:10 Room E

Chairpersons: Keiko Udaka, Koji Tamada

This WS focuses mainly on anti-tumor responses mediated by endogenous tumor-specific T cells and exogenously transferred gene-modified T cells in the tumor microenvironment. In addition, novel mechanisms for antigen presentation via exosome or mRNA vaccine to tumor-specific T cells are also presented in the scope of potentiating future immunotherapies. Within this field, one of the major topics is metabolic and mitochondrial regulation of tumor-specific T cells, especially in the mechanisms for the efficacy of immune-checkpoint inhibitors. Recent technical developments including single-cell NGS analysis are also presented, as they are obvious driving forces to facilitate investigations in this field. Finally, novel CAR-T cell technologies and their signaling mechanisms will be introduced. We anticipate an active discussion and a delivery of take-home messages in this WS.

1-E-WS5-01-O/P

Simultaneous analysis of TCR repertoire and transcriptome of tumor infiltrating T cells in hepatocellular carcinoma by single-cell sequences identified clusters including tumor reactive CTLs with early effector like phenotype

◯ Toshihiro Suzuki

Department of Pharmacology, Teikyo University School of Medicine, Tokyo, Japan

1-E-WS5-06-O/P

Spermidine promotes fatty acid oxidation in CD8+ T cells and enhances anti-tumor immunity by PD-1 blockade in aged mice

◯ Muna Al Habsi[1)], Kenji Chamoto[1)], Tasuku Honjo[1)], Sidonia Fagarasan[2)]

Depratment of Immunology and genomic medicine, Kyoto University, Kyoto, Japan[1)], 5Laboratory for Mucosal Immunity, Center for Integrative Medical Sciences, RIKEN Yokohama Institute, Yokohama, Japan[2)]

1-E-WS5-09-O/P

The kinase Lck activate CAR-T cells independently upon co-receptor association

◯ Hiroaki Machiyama[1)], Ei Wakamatsu[1)], Masae Furuhata[1)], Hiroko Toyota[1)], Mamonkin Maksim[2)], Brenner K Malcom[2)], Tadashi Yokosuka[1)]

Department of Immunology, Tokyo Medical University, Tokyo, Japan[1)], Center for Cell and Gene Therapy, Baylor College of Medicine, Houston, TX, USA[2)]

1-E-WS5-10-O/P

Targeting poor prognosis leukemia with CD25-targeted chemokine receptor expressing CAR Tcell therapy

◯ ARI Itoh-Nakadai[1, 2)], Mariko Tomizawa[1)], Masashi Matsuda[3)], Haruhiko Koseki[3)], Fumihiko Ishikawa[1)]

Human Disease Models., IMS, Riken, Yokohama, Japan[1)], Hygiene and public Health, Graduated School of Medicine, Nippon Medical School, Tokyo, Japan[2)], Developmental Genetics, IMS,RIKEN, Yokohama, Japan[3)]

1-E-WS5-12-O/P

Augmentation of IL6 signaling by the deletion of SOCS3 in T cells enhances tumor immunity through the modification of mitochondria states

◯ Setsuko Mise-Omata, Akihiko Yoshimura

Keio University School of medicine, Department of microbiology and immunology

1-E-WS5-16-O/P

Selective expansion of tumor specific CD8 T cells with engineered antigen presenting exosome

◯ Xiabing Lyu[1)], Tomoyoshi Yamano[1, 2)], Shota Imai[1)], Yoshinori Hasebe[1)], Zixin Tang[1)], Rikinari Hanayama[1, 2)]

Graduate school of Medical Science, Kanazawa University, Kanazawa, Japan [1)], Nano Life Science Institute, Kanazawa University, Kanazawa, Japan[2)]

1-E-WS5-17-O/P

Efficacy of mRNA cancer vaccines in murine melanoma model

◯ Chutamath Sittplangkoon[1, 2)], Mohamad-Gabriel Alameh[3)], Drew Weissman[3)], Tanapat Palaga[2, 4)]

Graduate Program in Biotechnology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand[1)], Center of Excellence in Immunology and Immune-Mediated Diseases, Chulalongkorn University, Bangkok, Thailand[2)], Division of Infectious Diseases, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, USA[3)], Department of Microbiology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand[4)]

December 9

WS6 Immunity against SARS-CoV-2 and influenza virus

12:55~14:10 Room A

Chairpersons: Sujin Kang, Hisashi Arase

With the global coronavirus pandemic in its second year, we are still struggling against SARS-CoV-2 virus by developing effective vaccines and establishing appropriate therapeutic interventions. Therefore, it is quite important to understand the immunity against viruses. This session is intended to enhance understanding of immune response against viruses including SARS-CoV-2 and influenza viruses. We hope that this session will be a chance to share knowledge, perspectives and discuss solutions to the complex challenges of anti-viral immunity.

2-A-WS6-01-O/P

Influenza virus infection induces memory phenotype in group 2 innate lymphoid cell

◯ Eriko Kudo[1)], Akihiro Tokuda[1)], Tsuyoshi Kiniwa[2)], Kazuyo Moro[1, 2)]

Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, Suita, Japan[1)], Laboratory for Innate Immune Systems, IMS, RIKEN, Yokohama, Japan[2)]

2-A-WS6-02-O/P

SARS-CoV-2 S1 protein binds to b1 integrins to trigger integrin-mediated activation pathway

◯ Eun Jeong Park[1)], Khwanchanok Mokmued[1)], Eri Matsuo[1)], Siqingaowa Caidengbate[1)], Atsushi Ito[1, 2)], Eiji Kawamoto[1, 3)], Arong Gaowa[1)], Motomu Shimaoka[1)]

Department of Molecular Pathobiology and Cell Adhesion Biology, Mie University Graduate School of Medicine, Tsu, Japan[1)], Department of Cardiothoracic Surgery, Mie University Graduate School of Medicine, Tsu, Japan[2)], Department of Emergency and Disaster Medicine, Mie University Graduate School of Medicine, Tsu, Japan[3)]

2-A-WS6-03-O/P

An infectivity-enhancing site on the SARS-CoV-2 spike protein targeted by antibodies

◯ Yafei Liu[1, 2)], Wataru Nakai[1, 2)], Noriko Arase[3)], Masako Kohyama[1, 2)], Hisashi Arase[1, 2)]

Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan[1)], Laboratory of Immunochemistry, World Premier International Immunology Frontier Research Centre, Osaka University, Osaka, Japan[2)], Department of Dermatology, Graduate school of Medicine, Osaka University, Osaka, Japan[3)]

2-A-WS6-04-O/P

Role of germinal center response in the antibody responses against SARS-CoV-2 spike protein

◯ Kosuke Miyauchi[1)], Rina Hashimoto[2)], Kazuo Takayama[2)], Masato Kubo[1, 3)]

Laboratory for Cytokine Regulation, Center for Integrative Medical Sciences, RIKEN, Japan[1)], Center for iPS Cell Research and Application, Kyoto University, Japan[2)], Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Japan[3)]

2-A-WS6-05-O/P

Transient depletion of Treg cells induces adaptive immunity to SARS-CoV-2 antigens

◯ Ryuta Uraki[1, 2, 3)], Masaki Imai[1)], Hiroaki Shime[1)], Yoshihiro Kawaoka[2, 3, 4)], Sayuri Yamazaki[1)]

Nagoya City University Graduate School of Medical Sciences[1)], Institute of Medical Science, University of Tokyo[2)], National Center for Global Health and Medicine[3)], School of Veterinary Medicine, University of Wisconsin-Madison, Madison[4)]

2-A-WS6-06-O/P

Cross-reactivity of pre-existing CD8+ T cells against SARS-CoV-2

◯ Kanako Shimizu[1)], Tomonori Iyoda[1)], Shin-ichiro Fujii[2)]

Laboratory for Immunotherapy, RIKEN Center for Integrative Medical Sciences (IMS)[1)], RIKEN Program for Drug Discovery and Medical Technology Platforms (DMP)[2)]

2-A-WS6-07-O/P

In-depth analysis of SARS-CoV-2-specific CD8$^+$ T cells using T cell library assay on COVID-19 convalescents

◯ Hideki Ogura[1)], Jin Gohda[2)], Mizuki Yamamoto[2)], Aoi Son[1)], Motohiro Murakami[3)], Jun-ichiro Inoue[4)], Kunihiro Shirai[3)], Jun-ichi Hirata[3)], Satoshi Ishido[1)]

Department of Microbiology, Hyogo College of Medicine, Hyogo, Japan[1)], Research Center for Asian Infectious Diseases, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan[2)], Department of Emergency and Critical Care Medicine, Hyogo College of Medicine, Hyogo, Japan[3)], Research Platform Office, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan[4)]

2-A-WS6-08-O/P

SARS-CoV-2 ORF8 is a viral cytokine involved in lung inflammation

◯ Masako Kohyama[1, 2)], Toru Okamoto[3)], Tatsuya Suzuki[3)], Hisashi Arase[1, 2)]

Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University[1)], Laboratory of Immunochemistry, Immunology Frontier Research center, Osaka University[2)], Institute for Advanced Co-Creation Studies, Research Institute for Microbial Diseases, Osaka University[3)]

2-A-WS6-09-O/P

Establishment of a severe COVID-19 model in mice with stress

◯ Shintaro Hojyo[1)], Rie Hasebe[2)], Kumiko Tanaka[1)], Yuki Tanaka[1)], Mona Uchida[1)], Masaaki Murakami[1)]

Molecular Psychoimmunology, Institute for Genetic Medicine, Hokkaido University[1)], Center for Infection-associated Cancer, Institute for Genetic Medicine, Hokkaido University[2)]

2-A-WS6-10-O/P

Distribution of CD38-positive immune cells, endothelial cells and renal tubular cells in cynomolgus macaques infected with SARS-CoV-2

◯ Nguyen Thanh Cong, Yasushi Itoh, Misako Nakayama, Hirohito Ishigaki

Division of Pathogenesis and Disease Regulation, Department of Pathology, Shiga University of Medical Science

WS7 Autoimmune diseases-1

12:55~14:10 Room B

Chairpersons: Sayuri Yamazaki, Keiji Hirota

Autoimmune disease is characterized by the loss of self-tolerance. However, it remains largely unclear how regulatory T cells, self-reactive T cells, and autoantibody-secreting B cells are regulated in lymphoid organs and inflamed tissues. In this workshop, we would like to focus on cutting-edge research findings in autoimmune tissue inflammation from the perspective of single-cell RNA-seq analysis (heterogeneity), osteoclastogenesis, neuro-immune interactions, epigenetic regulation, dysbiosis, and theoretical models as well as the regulation of regulatory T cells and autoimmune T and B cells. We hope active discussion from the audience. (Each presentation will have 7 min talk + 2 min discussion.)

2-B-WS7-01-O/P

Inflammation spreads to other limbs through an ATP-mediated sensory-interneuron network

◯ Rie Hasebe, Yuki Tanaka, Shintaro Hojyo, Daisukie Kamimura, Masaaki Murakami

Institute for Genetic Medicine, Hokkaido University

2-B-WS7-02-O/P

Redox-mediated SOCS3 expression in regulatory T cells is involved in the development of autoimmunity

◯ Hiroki Satooka, Yuzuki Nakamura, Kagefumi Todo, Takako Hirata

Department of Fundamental Biosciences, Shiga University of Medical Science, Otsu, Shiga, Japan

2-B-WS7-03-O/P

A novel methotrexate target TAp63 suppresses Foxp3 expression and exacerbates autoimmune arthritis

◯ Kensuke Suga, Akira Suto, Takahiro Kageyama, Shigeru Tanaka, Taro Iwamoto, Kei Ikeda, Kotaro Suzuki, Hiroshi Nakajima

Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University

2-B-WS7-04-O/P

A distal enhancer regulates RANKL expression in synovial fibroblasts in arthritis

◯ Minglu Yan[1)], Noriko Komatsu[1)], Ryunosuke Muro[1)], Takeshi Nitta[1)], Kazuo Okamoto[2)], Masayuki Tsukasaki[1)], Hiroshi Takayanagi[1)]

Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[1)], Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan.[2)]

2-B-WS7-05-O/P

Plasma cells promote osteoclastogenesis and periarticular bone loss in autoimmune arthritis

◯ Noriko Komatsu[1)], Yan Minglu[1)], Masayuki Tsukasaki[1)], Asuka Terashima[2)], Hiroshi Takayanagi[1)]

Department of Immunology Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[1)], Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[2)]

2-B-WS7-06-O/P

Single-cell repertoire analysis of BCR and functional analysis of anti-GM-CSF antibodies in autoimmune pulmonary alveolar proteinosis

◯ Shinji Futami[1, 2)], Takeshi Inoue[2)], Atsushi Kumanogoh[1)], Tomohiro Kurosaki[2)]

Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine, Osaka, Japan[1)], Laboratory of Lymphocyte Differentiation, Immunology Frontier Research Center, Osaka University, Osaka, Japan[2)]

2-B-WS7-07-O/P

A mechanism for anti-mesangium IgA production in IgA nephropathy model mice

◯ Mizuki Higashiyama[1)], Kei Haniuda[2)], Yoshihito Nihei[1, 3)], Riku Hisato[1)], Daisuke Kitamura[1)]

Division of Molecular Biology, Research Institute for Biomedical Sciences(RIBS), Tokyo University of Science, Chiba, Japan[1)], Department of Immunology, University of Toronto, Toronto, Canada[2)], Department of Nephrology, Juntendo University Faculty of Medicine, Tokyo, Japan[3)]

2-B-WS7-08-O/P

A metagenome-wide association study revealed disease-specific landscape of the gut microbiome of systemic lupus erythematosus in Japanese

◯ Yoshihiko Tomofuji[1)], Yuichi Maeda[2, 3, 4)], Yagita Mayu[2, 3)], Kiyoshi Takeda[2, 4, 5)], Atsushi Kumanogoh[2, 4, 5)], Yukinori Okada[1, 4, 6)]

Department of Statistical Genetics, Osaka University Graduate School of Medicine, Suita, Japan.[1)], Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine, Suita, Japan.[2)], Laboratory of Immune Regulation, Department of Microbiology and Immunology, Osaka University Graduate School of Medicine, Suita, Japan. [3)], Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Suita, Japan.[4)], Department of Immunopathology, Immunology Frontier Research Center, Osaka University, Suita, Japan. [5)], Laboratory of Statistical Immunology, Immunology Frontier Research Center (WPI-IFReC), Osaka University, Suita, Japan.[6)]

WS8 B cell-Regulation of B cell immune response

12:55~14:10 Room C

Chairpersons: Reiko Shinkura, Ryo Shinnakasu

B cell antigens (Ags) are divided into two types, T cell-dependent (TD) and -independent (TI). In the TD response, through the interaction between Ag activated helper T cells and B cells, class switch recombination (CSR) and germinal center (GC) formation occur to induce the different class of antibodies and somatic hypermutation (SHM) respectively. In the TI response, instead of T cell help, B cell activation is induced by non-protein Ags, i.g. CpG or polysaccharides, which elicit strong BCR signaling combination with Toll-like receptor (TLR) for antibody secretion. In addition, regulation mechanism of B cell immune response by innate lymphoid cell (ILC) is an area of active research. In this workshop, we would like to focus on the novel findings of 1) class switching mechanism and immune regulation, 2) pre-GC B cell marker, 3) TI immune response, 4) ILC2 function for B cell immunity.

2-C-WS8-05-O/P

AFF3 regulates class switch recombination by enhancing mutagenesis of switch region

◯ Shin-ichi Tsukumo[1)], Yoichi Maekawa[2)], Keishi Fujio[3)], Koji Yasutomo[1)]

Department of Immunology and Parasitology, Graduate School of Medicine, Tokushima University, Tokushima, Japan[1)], Department of Parasitology and Infectious Diseases, Graduate School of Medicine, Gifu University, Gifu, Japan[2)], Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan[3)]

2-C-WS8-08-O/P

STAT3 couples with 14-3-3s to regulate BCR signaling, B-cell differentiation, and IgE production

◯ Chaohong Liu

Department of Pathogen Biology, School of Basic Medicine, Huazhong University of Science and Technology, Wuhan, China

2-C-WS8-10-O/P

Dietary iodine suppresses allergic rhinitis by suppressing B cell response

◯ Yutaka Nakamura, Koji Hase

Faculty of Pharmacy, Keio University

2-C-WS8-14-O/P

Integrin CD11b, a new marker of pre-germinal center IgA$^+$ B cells in murine Peyer's patches

◯ Gao Peng[1, 2)], Takahiro Adachi[3)], Naoki Morita[2)], Daisuke Kitamura[4)], Reiko Shinkura[1, 2)]

Graduate School of Frontier Science, University of Tokyo; Kashiwa-shi, Chiba, Japan[1)], Institute for Quantitative Biosciences, University of Tokyo; Bunkyo-ku, Tokyo, Japan. [2)], Department of Precision Health, Medical Research Institute, Tokyo Medical and Dental University, Chiyoda-ku, Tokyo, Japan.[3)], Division of Cancer Biology, Research Institute for Biomedical Sciences (RIBS), Tokyo University of Science, Noda, Chiba, Japan[4)]

2-C-WS8-16-O/P

A critical role of Protein kinase Cδ in the IgG response against T cell-independent type 2 antigens and commensal bacteria

◯ Saori Fukao, Kei Haniuda, Daisuke Kitamura

Research Institute for Biomedical Sciences, Tokyo University of Science

2-C-WS8-17-O/P

Persistence of antigens in endosome/lysosome is essential for B cell response to TI-2 polysaccharide antigens

◯ Kana Matsumura, Takeshi Tsubata

Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

2-C-WS8-18-O/P

Single cell profiling of Type 2 innate immune response in the lung of aging mice: An important role in B1 cells activation

◯ Tommy Terooatea[1)], Yasutaka Motomura[2)], Natsuko Otaki[3)], Jen Chang[1)], Haruka Yabukami[1)], Natsuki Takeno[4)], Thomas Kelly[1)], Kazuo Moro[2, 4)], Aki Minoda[1)]

Laboratory for cellular epigenomics, RIKEN Center for Integrative Medical Science (IMS)[1)], Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University[2)], Department of Microbiology and Immunology, Keio University School of Medicine,[3)], Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Science (IMS)[4)]

WS9 Allergy

12:55~14:10 Room D

Chairpersons: Atsuhito Nakao, Satoko Tahara

Allergic diseases such as asthma, allergic rhinitis, atopic dermatitis, and food allergy are a growing public health, medical, and economic problem worldwide. Although we come to understand several major aspects of allergic diseases though extensive scientific efforts during the past ~50 years, there are still significant puzzles in allergic diseases and the development of effective cure for the diseases has been hindered. In this "Allergy" session, we have selected the research topics that provide a new insight into current allergology and would like to discuss the topics extensively with audience, e.g. what is new, how it advance our understanding of allergy, and how it can translate into the prevention and treatment of allergic diseases.

2-D-WS9-01-O/P

The role of PGD_2/CRTH2 signaling in host defense against bee venom

◯ Misato Kida, Takahisa Murata

Department of Animal Radiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan

2-D-WS9-02-O/P

Staphylococcus aureus δ-toxin in skin promotes the development of food allergy following epicutaneous sensitization

◯ Anna Kamei[1, 2)], Hiromichi Yamada[1, 3)], Kumi Izawa[1)], Tomoaki Ando[1)], Ayako Kaitani[1)], Akie Maehara[1)], Hexing Wang[1, 2)], Koji Tokushige[1, 2)], Shino Uchida[1, 4)], Nobuhiro Nakano[1)], Ko Okumura[1)], Jiro Kitaura[1)]

Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine[1)], Department of Science of Allergy and Inflammation, Juntendo University Graduate School of Medicine[2)], Department of Pediatrics and Adolescent Medicine, Juntendo University Graduate School of Medicine[3)], Department of Gastroenterology, Juntendo University Graduate School of Medicine[4)]

2-D-WS9-03-O/P

Role of human basophil in oral allergen-induced anaphylaxis in humanized mice

◯ Yu-Hsien Lin[1, 2)], Satoko Tahara-Hanaoka[1, 2, 3)], Akira Shibuya[1, 2, 3)]

Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba[1)], Department of Immunology, Faculty of Medicine, University of Tsukuba[2)], R&D center for Innovative Drug Discovery, University of Tsukuba.[3)]

2-D-WS9-04-O/P

Chronic psychological stress exacerbates IgE-dependent chronic allergic inflammation via sympathetic nerve

◯ Hitoshi Urakami[1)], Yuki Fujita[1)], Ayaka Komura[1)], Kei Nagao[1)], Ruriko Okutani[1)], Kensuke Miyake[2)], Hajime Karasuyama[2)], Soichiro Yoshikawa[1)]

Department of Cell Physiology, Okayama University, Okayama,Japan[1)], Inflammation, infection and Immunity Laboratory, Advanced Research Institute, Tokyo Medical and Dental University (TMDU), Tokyo, Japan[2)]

2-D-WS9-05-O/P

STAT3-dependent IL-31 receptor signaling in sensory neurons underlies chronic itch induction while regulates inflammation

◯ Sotaro Ochiai[1, 2)], Sonoko Takahashi[1, 2)], Jianshi Jin[3)], Noriko Takahashi[1)], Harumichi Ishigame[1)], Masato Kubo[4)], Manabu Nakayama[5)], Katsuyuki Shiroguchi[3)], Takaharu Okada[1, 2, 6)]

Laboratory for Tissue Dynamics, RIKEN Center for Integrative Medical Sciences (RIKEN IMS), Yokohama, Kanagawa, Japan[1)], Disease Biology Group, RIKEN Medical Sciences Innovation Hub Program (RIKEN MIH), Yokohama, Kanagawa, Japan[2)], Laboratory for Prediction of Cell Systems Dynamics, RIKEN Center for Biosystems Dynamics Research (RIKEN BDR), Suita, Osaka, Japan[3)], Laboratory for Cytokine Regulation, RIKEN Center for Integrative Medical Sciences (RIKEN IMS), Yokohama, Kanagawa, Japan[4)], Department of Frontier Research and Development, Kazusa DNA Research Institute, Kisarazu, Chiba, Japan[5)], Graduate School of Medical Life Science, Yokohama City University, Yokohama, Kanagawa, Japan[6)]

2-D-WS9-06-O/P

Omega-3 fatty acid metabolite, 12-hydroxyeicosapentaenoic acid, inhibits allergic contact dermatitis through retinoid X receptor alpha in keratinocytes

◯ Azusa Saika[1)], Takahiro Nagatake[1)], Koji Hosomi[1)], Ayu Matsunaga[1)], Tetsuya Honda[2, 3)], Makoto Arita[4, 5, 6)], Kenji Kabashima[2)], Jun Kunisawa[1, 7, 8, 9, 10)]

Laboratory of Vaccine Materials, Center for Vaccine and Adjuvant Research, and Laboratory of Gut Environmental System, National Institutes of Biomedical Innovation, Health and Nutrition (NIBIOHN)[1)], Department of Dermatology, Graduate School of Medicine, Kyoto University[2)], Department of Dermatology, Hamamatsu University School of Medicine[3)], Division of Physiological Chemistry and Metabolism, Faculty of Pharmacy, Keio University[4)], Laboratory for Metabolomics, RIKEN Center for Integrative Medical Sciences[5)], Graduate School of Medical Life Science, Yokohama City University[6)], Research Organization for Nano and Life Innovation, Waseda University[7)], Department of Microbiology and Immunology, Graduate School of Medicine, Kobe University[8)], International Research and Development Center for Mucosal Vaccines, The Institute of Medical Science, The University of Tokyo[9)], Graduate Schools of Pharmaceutical Sciences, Medicine, Dentistry, Osaka University[10)]

2-D-WS9-07-O/P

α-glucosidase inhibitor acarbose suppresses mast cell activation and systemic anaphylaxis through the gut microbiota

◯ Kyosuke Yakabe[1, 2)], Koji Hase[2)], Yun-Gi Kim[1)]

Research Center for Drug Discovery, Faculty of Pharmacy, Keio University, Tokyo, Japan[1)], Division of Biochemistry, Faculty of Pharmacy, Keio University, Tokyo, Japan[2)]

2-D-WS9-08-O/P

LIGHT-LTβR Signaling is Essential for Airway Smooth Muscle Remodeling and Asthmatic Airway Hyperresponsiveness

◯ Haruka Miki[1)], William B. Kiosses[1)], Mario C. Manresa[1, 2)], Michael Croft[1, 2)]

La Jolla Institute for Immunology[1)], UC San Diego[2)]

WS10 Tumor microenvironment, Effector cells

12:55~14:10 Room E

Chairpersons: Hiroaki Ikeda, Naoko Ohtani

Regardless of the recent progress in immunotherapy of cancer, only limited cancer patients are benefitted from the therapy. To expand the application of cancer immunotherapy, it is important to understand the tumor microenvironment and various immune effector cells that regulate immunological control of tumor in both positive and negative ways. In this session, we will discuss the topic on the tumor microenvironment and immune cells that infiltrate into tumor such as NK cells, NKT cells, macrophages, myeloid-derived suppressor cells, tumor infiltrating B cells and cytotoxic T cells, suggesting their regulation by co-stimulatory/inhibitory signals, agonistic ligands and bispecific antibodies, along with the illustration of their behaviors by new technologies. We envisage many audiences will contribute to this session by active interaction with the presenters.

2-E-WS10-01-O/P

CD155 mutation (Ala67Thr) reduces NK cell cytotoxicity by enhancing TIGIT signal

◯ Tomohei Matsuo[1, 2)], Akira Shibuya[1, 3, 4)], Kazuko Shibuya[1, 4)]

Departments of Immunology, Faculty of Medicine, University of Tsukuba[1)], Doctoral Program of Clinical Sciences, Comprehensive Human Sciences, University of Tsukuba[2)], Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba[3)], R&D Center for Innovative Drug Discovery, University of Tsukuba[4)]

2-E-WS10-02-O/P

HLA-F as a new target molecule for cancer immunotherapy of colon cancer

◯ Noriko Ouji-sageshima, Masahiro Kitabatake, Ryutaro Furukawa, Toshihiro Ito

Nara Medical University, Department of Immunology, Nara, Japan

2-E-WS10-03-O/P

Immunological response in randomized phase II study of NKT cell-targeted immunotherapy in the non-small cell lung cancer patients

◯ Tomonori Iyoda, An Sanpei, Masami Kawamura, Jun Shinga, Kanako Shimizu, Shin-ichiro Fujii

RIKEN, Center for Integrative Medical Sciences, Kanagawa, Japan

2-E-WS10-04-O/P

Preclinical evaluation of the efficacy of anti-human SIRPα antibody for cancer immunotherapy by the use of humanized mice

◯ Yasuyuki Saito, Rie Norita-Iida, Daisuke Hazama, Refaat Alaa, Satomi Komori, Takenori Kotani, Yoji Murata, Takashi Matozaki

Division of Molecular and Cellular Signaling, Kobe University Graduate School of Medicine, Kobe, Japan

2-E-WS10-05-O/P

G-CSF enhances immunosuppressive activity of MDSCs by GGT1

Zhiqi Xie[1)], Haoyang Zhou[1)], Daisuke Okuzaki[2, 3)], Naoki Okada[1)], ◯ Masashi Tachibana[1, 4)]
Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan[1)], IFReC, Osaka University, Osaka, Japan[2)], RIMD, Osaka University, Osaka, Japan[3)], MEIC, Osaka University, Osaka, Japan[4)]

2-E-WS10-06-O/P

Basic research on the development of cancer therapy with Tumor-Infiltrating B cells

◯ Tsubasa Kobayashi[1)], Toshihiro Suzuki[2)], Tetsuya Nakatsura[2)], Daisuke Kitamura[1)]
Research institute of biomedical sciences, Tokyo University of science, Chiba, Japan[1)], National Cancer Center Japan, Chiba, Japan[2)]

2-E-WS10-07-O/P

STA551, a novel ATP-dependent CD137 agonist improved anti-tumor efficacy of T cell bispecific antibody in vivo

◯ Sayuri Horikawa[1)], Yoshinori Narita[1, 2)], Ryo Uchikawa[1)], Kenji Taniguchi[1)], Koki Hamada[1)], Shouichi Metsugi[1)], Mika Kamata-Sakurai[1)]
Research Division, Chugai Pharmaceutical Co. Ltd., Japan[1)], Chugai Pharmabody Research Pte. Ltd., Singapore[2)]

2-E-WS10-08-O/P

Human T cells illustrate TCR microclusters by triggering with bispecific antibodies, blinatumomab

◯ Hitoshi Nishijima[1)], Arata Takeuchi[1)], Ei Wakamatsu[1)], Wataru Nishi[1, 2)], Hiroaki Machiyama[1)], Tadashi Yokosuka[1)]
Department of Immunology, Tokyo Medical University, Tokyo, Japan[1)], Department of Thoracic Surgery, Kumamoto University[2)]

WS11 Macrophages/Dendritic cells in inflammation and diseases

12:55~14:10 Room F

Chairpersons: Noriko Toyama-Sorimachi, Hiroyuki Tezuka

Macrophages and dendritic cells (DCs) are comprised of heterogeneous populations with distinct phenotypes and functions. These cells survey almost all organs for foreign substances, microbes and cellular debris, and play pivotal roles not only in innate and adaptive immune responses but also in tissue homeostasis. Recent advances in macrophage/DC research have renewed our understandings of immune regulation, and provided novel concepts in various fields; e.g. infection, disease pathogenesis, wound healing, self-tolerance, and tumor growth. In this workshop, we will discuss up-to-date fruits of various aspects of macrophage/DC research, including differentiation, antigen-presentation, and cytokine/chemokine production in inflammatory conditions, and also including responses to gut microbiota-derived metabolites. We would like to share exciting time with participants and welcome active discussion.

2-F-WS11-01-O/P

Alveolar macrophages instruct CD103+CD8+ T_{RM} cells formation via antigen cross-presentation

◯ Takumi Kawasaki, Moe Ikegawa, Taro Kawai
Nara Institute of Science and Technology (NAIST), Ikoma, Japan

2-F-WS11-02-O/P

A novel therapeutic strategy of pulmonary fibrosis based on arginine metabolism in macrophages

◯ Noriko Toyama-Sorimachi, Dat Nguyen-Tien, Toshihiko Kobayashi
Department of Molecular Immunology and Inflammation, Research Institute, National Center for Global Health and Medicine

2-F-WS11-03-O/P

Hyperactivation of STING-induced type I interferon pathway in dendritic cells from novel mice model for an autoinflammatory disease, COPA syndrome

◯ Takashi Kato[1)], Takashi Orimo[1)], Yuri Fukuda-Ohta[1)], Sasaki Izumi[1)], Hiroaki Hemmi[1, 2)], Yoshitaka Honda[3, 4, 5)], Kazushi Izawa[5)], Ryuta Nishikomori[6)], Tsuneyasu Kaisho[1)]
Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Wakayama, Japan[1)], Laboratory of Immunology, Faculty of Veterinary Medicine, Okayama University of Science, Imabari, Japan[2)], Institute for the Advanced Study of Human Biology (ASHBi), Kyoto University, Kyoto, Japan[3)], Department of Immunology, Kyoto University Graduate School of Medicine, Kyoto, Japan[4)], Department of Pediatrics, Kyoto University Graduate School of Medicine, Kyoto, Japan[5)], Department of Pediatrics and Child Health, Kurume University School of Medicine, Kurume, Japan[6)]

2-F-WS11-04-O/P

Loss of Rab7a in dendritic cells causes type 2 autoimmune hepatitis and primary biliary cholangitis

◯ Shin-Ichiroh Saitoh, Yoshiko-Mori Saitoh, Kensuke Miyake
The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

2-F-WS11-05-O/P

SIRPα supports the survival of dendritic cells by regulating the NF-κB activation

◯ Satomi Komori, Yasuyuki Saito, Respatika Datu, Takenori Kotani, Yoji Murata, Takashi Matozaki

Division of Molecular and Cellular Signaling, Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine, Kobe, Japan

2-F-WS11-06-O/P

The effects of the gut lactic acid bacteria-generated metabolite 10-oxo-*cis*-6,*trans*-11-octadecadienoic acid on inflammatory responses *in vivo* and *in vitro*

◯ Naoki Kodama, Takuya Yashiro, Kazuki Nagata, Miki Ando, Chiharu Nishiyama

Graduate School of Advanced Engineering, Department of Biological Science and Technology, Tokyo University of Science, Tokyo, Japan

2-F-WS11-07-O/P

Phosphorylated FROUNT regulates CCR2/5-mediated chemotactic signaling via the PI3KIA

◯ Ming Chen Chen[1, 2], Yuya Terashima[1)], Etsuko Toda[1, 3], Seiichiroh Ohsako[2)], Kouji Matsushima[1)]

Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Science (RIBS), Tokyo University of Science, Tokyo, Japan[1)], Laboratory of Microenvironmental and Metabolic Health Science, Department of Social Medicine, The University of Tokyo, Tokyo, Japan[2)], Department of Analytic Human Pathology, Nippon Medical School, Tokyo, Japan[3)]

WS12 Mucosal-Skin Immunity

14:20~15:35 Room A

Chairpersons: Jun Kunisawa, Saeko Nakajima

In the barrier organs such as gastrointestinal tract and skin, innate/adaptive immune cells and non-immune cells (e.g., stromal, epithelial, and nerve cells) cooperatively interact and provide the first line of barrier system for maintaining homeostasis of mucosal and skin interface. In addition, accumulating evidence indicate that resident microbes and their metabolites regulate the host barrier system and contribute to maintain its homeostasis. This workshop aims to discuss recent findings on molecular and cellular machineries of the mucosal and skin immunity regulated by host and microbes.

2-A-WS12-01-O/P

IL15-dependent ILC1s drive epidermal differentiation to sustain skin barrier

◯ Tetsuro Kobayashi[1)], Aki Minoda[2)], Kazuyo Moro[1)]

Innate Immune Systems, IMS, RIKEN, Yokohama, Japan[1)], Laboratory for Cellular Epigenomics, IMS, RIKEN, Yokohama, Japan[2)]

2-A-WS12-02-O/P

Sublingual dendritic cell (DC) - T cell clusters and distribution of DCs in the oral cavity

Yutaka Kusumoto[1)], Tsuneyasu Kaisho[2)], Hiroaki Hemmi[2)], Tomoya Katakai[3)], Tetsuya Honda[4)], Junichi Kikuta[5)], Kousuke Kataoka[6)], Taiki Moriya[1)], Masaru Ishii[5)], Kenji Kabashima[4)], ◯ Michio Tomura[1)]

Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, Osaka, Japan[1)], Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Graduate school of Medicine, Wakayama, Japan[2)], Department of Immunology, Graduate School of Medical and Dental Sciences, Niigata University, Niigata, Japan[3)], Department of Dermatology, Kyoto University, Graduate School of Medicine, Kyoto, Japan[4)], Laboratory of Immunology and Cell Biology, Graduate school of Medicine, Osaka University, Osaka, Japan[5)], Department of Oral Health Science and Social Welfare, Graduate School of Biomedical Sciences, Tokushima University, Tokushima, Japan[6)]

2-A-WS12-03-O/P

Clathrin adaptor protein 1B maintains the interaction of intestinal epithelial cells and intraepithelial lymphocytes

◯ Ryohtaroh Matsumoto[1)], Daisuke Takahashi[1)], Shunsuke Kimura[1)], Hiroshi Ohno[2)], Koji Hase[1)]

Graduate School of Pharmaceutical Science, Keio University[1)], RIKEN Center for Integrative Medical Science[2)]

2-A-WS12-04-O/P

Retention of CD4$^+$ tissue-resident memory T cells by interacting with CD301b$^+$ dermal dendritic cells via CXCL16 in a murine delayed-type hypersensitivity model

◯ Ryota Asahina, Gyohei Egawa, Kenji Kabashima

Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto, Japan

2-A-WS12-05-O/P

Crosstalk between enteric neurons and immune cells in the maintenance of intestinal homeostasis

◯ Takashi Fumita[1, 2], Lisa Fujimura[2)], Akemi Sakamoto[2)], Masahiko Hatano[1, 2)]

Department of Biomedical Science, Graduate School of Medicine, Chiba University[1)], Biomedical Research Center, Chiba University[2)]

2-A-WS12-06-O/P

MicroRNA-221/222 regulate gut homeostasis via tuning Th17 cells phenotype

◯ Yohei Mikami[1, 2)], Yuka Kanno[2)], Takanori Kanai[1)], John O'Shea[2)]

Division of Gastroenterology and Hepatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan[1)], National Institute of Arthritis, Musculoskeletal and Skin Diseases, NIH, MD, USA[2)]

2-A-WS12-07-O/P

A symbiotic mechanism of intestinal lymphoid tissue resident *Alcaligenes* by controlling metabolic modification in dendritic cells

◯ Koji Hosomi[1)], Takahiro Nagatake[1)], Hiroshi Kiyono[2, 3, 4, 5)], Jun Kunisawa[1, 2, 3, 6, 7, 8)]

Laboratory of Vaccine Materials, Center for Vaccine and Adjuvant Research, and Laboratory of Gut Environmental System, National Institutes of Biomedical Innovation, Health, and Nutrition (NIBIOHN)[1)], International Research and Development Center for Mucosal Vaccines, The Institute of Medical Science, The University of Tokyo[2)], IMSUT Distinguished Professor Unit, The Institute of Medical Science, The University of Tokyo[3)], Graduate School of Medicine, Chiba University[4)], Department of Medicine, School of Medicine and CU-UCSD Center for Mucosal Immunology, Allergy, and Vaccine, University of California[5)], Graduate School of Medicine, Graduate School of Pharmaceutical Sciences, Graduate School of Density, Osaka University[6)], Graduate School of Medicine, Kobe University[7)], Faculty of Science and Engineering, Waseda University[8)]

2-A-WS12-08-O/P

Intestinal Th17 cells induced by commensal fungi prevent inflammatory bowel disease

◯ Yoshiyuki Goto[1, 2)]

Division of Molecular Immunology, Medical Mycology Research Center, Chiba University[1)], Division of Muosal Symbiosis, International Research and Development Center for Mucosal Vaccines, Institute of Medical Science, The University of Tokyo[2)]

2-A-WS12-09-O/P

Staphylococcus cohnii is a skin commensal with biotherapeutic potentials alleviating skin inflammation

◯ Yoshihiro Ito[1, 2)], Hiroshi Kawasaki[1, 2)], Masayuki Amagai[1, 2)], Kenya Honda[1, 2)]

Keio University School of Medicine[1)], RIKEN, IMS[2)]

WS13 Autoimmune disease-2

14:20~15:35 Room B

Chairpersons: Sayuri Yamazaki, Atsushi Tanaka

Autoimmune diseases affect nearly 5% of the population. How self-tolerance fails and how self-reactive lymphocytes become activated are fundamental questions to understand the etiology and pathogenesis of autoimmune diseases. Following the WS7 Autoimmune disease-1, this workshop will continue to discuss the diverse mechanisms of various autoimmune diseases such as multiple sclerosis, myasthenia gravis, Sjogren's syndrome, IgG4-related diseases, systemic lupus erythematosus (SLE), experimental inflammatory myopathies, and interstitial pneumonia. We would like to ask all attendees to participate in active discussions. (Each presentation will have 7 min talk + 2 min discussion.)

2-B-WS13-01-O/P

Gut microbiota regulated miRNA in pathogenesis of Multiple sclerosis

◯ Manu Mallahalli[1)], Hirohiko Hohjoh[2)], Wakiro Sato[1)], Shinji Oki[1)], Takashi Yamamura[1)]

Dep. of Immunology, National Institute of Neuroscience, NCNP, Tokyo, Japan.[1)], Dep. of Molecular Pharmacology, National Institute of Neuroscience, NCNP, Tokyo, Japan.[2)]

2-B-WS13-02-O/P

The integrative analysis of large-scale bulk and single-cell RNAseq revealed neuromuscular molecules production by nmTEC in myasthenia gravis related thymoma

◯ Yoshiaki Yasumizu[1, 2)], Hisashi Murata[2)], Makoto Kinoshita[2)], Satoshi Nojima[3)], Naganari Ohkura[1)], Tatsusada Okuno[2)], Shimon Sakaguchi[1)]

Experimental immunology, Immunology Frontier Research Center, Osaka University, Osaka, Japan[1)], Department of Neurology, Osaka University Graduate School of Medicine, Osaka, Japan[2)], Department of Pathology, Osaka University Graduate School of Medicine, Osaka, Japan[3)]

2-B-WS13-03-O/P

Single-cell RNA sequencing reveals accumulation of CD4 and CD8 T cells with unique phenotypes in salivary glands of Sjögren's syndrome model mice

◯ Kunihiro Otsuka[1, 2)], Shin-ishi Tsukumo[1)], Rieko Arakaki[3)], Hideo Yagita[4)], Naozumi Ishimaru[3)], Koji Yasutomo[1)]

Department of Immunology and Parasitology, Tokushima University Graduate School of Medicine[1)], Department of Oral surgery, Tokushima University Hospital[2)], Department of Oral Molecular Pathology, Tokushima University Graduate School of Medicine[3)], Department of Immunology, Juntendo University School of Medicine[4)]

2-B-WS13-04-O/P

Analysis of class-switching to IgG4 in memory B cell subsets of IgG4-Related Disease

◯ Aya Nishiwaki[1)], Toshihiko Komai[1)], Yasuo Nagafuchi[1, 2)], Mineto Ota[1, 2)], Ryochi Yoshida[1)], Hiroaki Hatano[1)], Haruka Tsuchiya[1)], Saeko Yamada[1)], Masahiro Nakano[1)], Mai Okubo[1)], Satomi Kobayashi[1)], Yusuke Sugimori[1)], Yusuke Takeshima[1)], Yukiko Iwasaki[1)], Shuji Sumitomo[1)], Hirofumi Shoda[1)], Kazuhiko Yamamoto[3)], Tomohisa Okamura[1, 2)], Keishi Fujio[1)]

Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo[1)], Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo[2)], Laboratory for Autoimmune Diseases, Center for Integrative Medical Sciences, the Institute of Physical and Chemical Research (RIKEN)[3)]

2-B-WS13-05-O/P

CD72 inhibits lupus-specific B cell autoimmunity caused by response to apoptotic cells through recognition of lupus-specific self-antigens

◯ Chizuru Akatsu[1)], Quan-Zhen Li[2)], Hideharu Sekine[3)], Teizo Fujita[4)], Takeshi Tsubata[1)]

Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan[1)], Department of Immunology and Internal Medicine, UT Southwestern Medical Center, USA[2)], Department of Immunology, Fukushima Medical University, Fukushima, Japan[3)], Fukushima Prefectural General Hygiene Institute, Fukushima, Japan[4)]

2-B-WS13-06-O/P

Targeting necroptosis in muscle fibers ameliorates experimental inflammatory myopathies

◯ Mari Kamiya, Shinsuke Yasuda

Department of Rheumatology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University (TMDU), Tokyo, Japan

2-B-WS13-07-O/P

Role of innate immunity in the spontaneous development of pulmonary fibrosis

◯ Yuki Hara[1)], Yasutaka Motomura[1, 2, 3)], Kazuyo Moro[1, 2, 3, 4)]

Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University, Osaka, Japan[1)], Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (iFReC), Osaka, Japan[2)], Laboratory for Innate Immune Systems, RIKEN IMS, Kanagawa, Japan[3)], Laboratory for Innate Immune Systems, Graduate School of Frontier Biosciences, Osaka University, Osaka, Japan[4)]

2-B-WS13-08-O/P

Inflammatory potential of self-driven memory-phenotype CD4$^+$ T cells

◯ Akihisa Kawajiri[1, 2)], Minami Ishii[1)], Li Jing[1)], Yang Ziying[1)], Kosuke Sato[1)], Shunichi Tayama[1)], Yuko Okuyama[1)], Hideo Harigae[2)], Naoto Ishii[1)], Takeshi Kawabe[1)]

Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Japan.[1)], Department of Hematology and Rheumatology, Tohoku University Graduate School of Medicine, Sendai, Japan.[2)]

WS14 B cell- B cell differentiation and anti-SARS-CoV-2 antibody responses

14:20~15:35 Room C

Chairpersons: Masaki Hikida, Kyoko Ochiai

B cell differentiation is well organized by the gene regulatory network, consisted with cytokine signaling and downstream factors such as transcription factors. In addition to the universal gene regulation, recent studies have also revealed the importance of multiple components related to cellular physiological function in regulating B cell differentiation and its function. This session will highlight each factor, which expands and/or give new insight into this field. Furthermore, in the face of novel threaten virus, we also discuss about the significance of neutralizing antibodies against SARS-CoV-2 produced by plasma cells or memory B cells.

2-C-WS14-01-O/P

Conserved two E-box sequences neighboring the Rag1-promoter is critically required for the initiation of Rag1 gene expression upon T and B cell lineage commitment; Distinct gene regulation mediated by enhancers and promoter for adaptive immunity

◯ Masaki Miyazaki, Hiroshi Kawamoto, Kazuko Miyazaki

Institute for Frontier Medical and Life Sciences, Kyoto University

2-C-WS14-02-O/P

A single microRNA miR-195 rescues EBF1 deficiency in B cell differentiation

◯ Yuji Miyatake[1)], Tomokatsu Ikawa[2)], Ken-ichi Hirano[3)], Katsuto Hozumi[3)], Tomohiro Kurosaki[4, 5)], Kiyoshi Ando[6)], Hiroshi Kawamoto[7)], Ai Kotani[1)]

Department of Advanced Medical Science, Tokai University School of Medicine, Isehara, Japan[1)], RIKEN Research Center for Allergy and Immunology, Yokohama, Japan[2)], Department of Immunology, Tokai University School of Medicine, Isehara, Japan[3)], Laboratory for Lymphocyte Differentiation, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan[4)], Laboratory for Lymphocyte Differentiation, WPI Immunology Frontier Research Center and Graduate School of Frontier Biosciences, Osaka University, Suita, Japan[5)], Department of Hematology, Tokai University School of Medicine, Isehara, Japan[6)], Department of Immunology, Institute for Frontier Life and Medical Science, Kyoto University, Kyoto, Japan [7)]

2-C-WS14-04-O/P

The contributions of IL-1 receptor accessory protein to T-cell-independent type 2 responses

◯ Mari Tenno, Tang Xuyang, Saori Fukao, Kei Haniuda, Daisuke Kitamura

Division of Cancer Cell Biology, Research Institute for Biomedical Sciences (RIBS) Tokyo University of Science

2-C-WS14-06-O/P

Differential roles of RUBCN isoforms in the fate decision of germinal center B cells

◯ Chaoyuan Tsai, Shuhei Sakakibara, Hitoshi Kikutani

Laboratory of Immune Regulation, Immunology Frontier Research Center, Osaka University, Osaka, Japan

2-C-WS14-09-O/P

Isotype-specific metabolic requirements for survival of bone marrow plasma cells

◯ Akihiko Murata, Harumi Sasaki, Koji Tokoyoda
Division of Immunology, Department of Molecular and Cellular Biology, School of Life Science, Faculty of Medicine, Tottori University, Tottori, Japan

2-C-WS14-20-O/P

Dissecting temporal maturation of cross-neutralizing memory B cell responses against SARS-CoV-2 variants

◯ Yu Adachi, Saya Moriyama, Keisuke Tonouchi, Yoshimasa Takahashi
Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Tokyo, Japan

2-C-WS14-21-O/P

Glycan engineering of the SARS-CoV-2 receptor-binding domain elicits cross-neutralizing antibodies for SARS-related viruses

◯ Ryo Shinnakasu[1)], Shuhei Sakakibara[2)], Tomohiro Kurosaki[1)]
Laboratory of Lymphocyte Differentiation , WPI Immunology Frontier Research Center, Osaka University[1)], Laboratory of Immune Regulation, WPI Immunology Frontier Research Center, Osaka University[2)]

WS15 T cell differentiation

14:20~15:35 Room D

Chairpersons: Koji Yasutomo, Minako Ito

T cells are central to the maintenance of immune homeostasis and in turn dysregulation of T cell responses causes a variety of diseases resulting in irreversible tissue damages. The functional T cells are defined by distinct expression patterns of transcriptional factors and / or cytokine productions, and the differentiation is regulated by the interplay between intrinsic and extrinsic signals. Although recent technical advance of transcriptome features at the single cell level has promoted to demonstrate functional characteristics of each T cell type, we still do not fully understand the genetic programming and regulatory mechanisms of mature T cells. This workshop aims to facilitate exchange of the latest basic findings of mature T cells as well as discuss the roles of functional T cells in a wide range of disease models. We welcome any questions and comments through oral presentations and posters.

2-D-WS15-04-O/P

Regeneration of CTLs derived from CAR-iPSCs on stimulation through CAR signal

◯ Seiji Nagano, Kyoko Masuda, Hiroshi Kawamoto
Labs of Immunology, Institute for Frontier Life and Medical Sciences, Kyoto University

2-D-WS15-06-O/P

Functional analysis of cytotoxic-like Eomes+ Th cells multiple sclerosis

◯ Ben Raveney, Wakiro Sato, Daiki Takewaki, Shinji Oki, Takashi Yamamura
National Institute of Neuroscience, NCNP, Kodaira, Tokyo

2-D-WS15-10-O/P

Withdrawn

2-D-WS15-16-O/P

Tumor-infiltrating major CD8$^+$ T cell clones recognize both tumor cells and professional antigen-presenting cells in the tumor

◯ Haruka Shimizu[1)], Hiroyasu Aoki[1, 2)], Mikiya Tunoda[1, 3)], Kouji Matusima[1)], Satoshi Ueha[1)], Shigeyuki Shichino[1)]
Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science[1)], Department of Hygiene, Graduate School of Medicine, The University of Tokyo[2)], Department of Medicinal and Life Sciences, Faculty of Pharmaceutical Sciences, Tokyo University of Science[3)]

2-D-WS15-17-O/P

Mutual inhibition between Prkd2 and Bcl6 controls T follicular helper cell differentiation

◯ Takuma Misawa[1)], Bruce Beutler[2)]
Laboratory for Immune Cell Systems, RIKEN Center for Integrative Medical Sciences, Kanagawa, Japan[1)], Center for the Genetics of Host Defense, UT Southwestern Medical Center, Dallas, TX, USA[2)]

2-D-WS15-19-O/P

Dietary factors facilitate the differentiation into follicular helper T cells in Peyer's patches

◯ Kisara Muroi, Daisuke Takahashi, Koji Hase
Graduate School of Pharmaceutical Science, Keio University, Tokyo, Japan

2-D-WS15-23-O/P

Cooperative and distinct function of SRC2 and SRC3 in Th17 cell development

◯ Kenji Ichiyama[1)], Shimon Sakaguchi[1)], Chen Dong[2)]
Laboratory of Experimental Immunology, Immunology Frontier Research Center, Osaka University, Suita, Osaka, Japan[1)], Institute for Immunology, Tsinghua University, Beijing, P.R. China.[2)]

2-D-WS15-26-O/P

ACC1-expressing pathogenic T helper 2 cell populations facilitate lung and skin inflammation

◯ Takahiro Nakajima[1)], Toshio Kanno[1)], Toshinori Nakayama[2)], Yusuke Endo[1, 3)]
Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, Chiba, Japan[1)], Department of Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan[2)], Department of Omics Medicine, Graduate School of Medicine, Chiba University, Chiba, Japan[3)]

WS16 Advances in Immunological Signaling in Tumor Microenvironment

14:20~15:35 Room E

Chairpersons: Heiiichiro Udono, Hozumi Motohashi

Since the discovery of impacts of immune checkpoint inhibitors on survival of cancer patients, a great deal of attention has been paid to tumor microenvironment and interactions between cancer and immune cells in rigorous efforts to develop effective anticancer therapies. From a biological point of view, tumor behaviors are heavily dependent on not only cancer cells but also their microenvironment. Recent advances in analytical technologies, such as single cell-analyses, have been accelerating the progression of cancer research by enabling us to capture a whole image of tumors including cancer cells and their surrounding cells at molecular levels. In this session, various cellular interactions and communications occurring in tumor tissues, including inflammation, cytokine and lipid mediator signaling, and angiogenesis, will be presented and discussed.

2-E-WS16-03-O/P

Clec4A4 acts as immune checkpoint molecule expressed on conventional dendritic cells to suppress tumor immunity

◯ Tomofumi Uto, Tomohiro Fukaya, Hideaki Takagi, Yotaro Nishikawa, Moe Tominaga, Katsuaki Sato
Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan

2-E-WS16-05-O/P

AIM2 regulates anti-tumor immunity and serves as a therapeutic target for melanoma

Tomonori Yaguchi[1)], Yutaka Kawakami[1)], Anastasia Khvorova[2)], Katherine Fitzgerald[3)], John Harris[4)],
◯ Keitaro Fukuda[4, 5)], Ken Okamura[4)], Rebecca Riding[4)], Xueli Fan[4)], Sean McCauley[6)], Jeremy Luban[6)]
Division of Cellular Signaling, Institute for Advanced Medical Research, Keio University School of Medicine, Tokyo, Japan[1)], RNA Therapeutics Institute, University of Massachusetts Medical School, Worcester, MA[2)], Department of Infectious Diseases and Immunology, University of Massachusetts Medical School[3)], Department of Dermatology, University of Massachusetts Medical School, Worcester, MA[4)], Department of Dermatology, Keio University School of Medicine, Tokyo, Japan[5)], Program in Molecular Medicine, University of Massachusetts Medical School, Worcester, MA[6)]

2-E-WS16-06-O/P

PGE_2-EP2/EP4 signaling mediates immunosuppresion in tumor microenvironment through the facilitation of mregDC-Treg axis

◯ Dean Thumkeo, Shuh Narumiya
Department of Drug Discovery Medicine, Kyoto University Graduate School of Medicine

2-E-WS16-09-O/P

GSTA4 regulates responsiveness to anti-tumor immune responses in melanoma cells

◯ Sisca Ucche, Yoshihiro Hayakawa
Section of Host Defences, Institute of Natural Medicine, University of Toyama

2-E-WS16-10-O/P

Withdrawn

2-E-WS16-11-O/P

Role of a putative cyclin-binding domain in nuclear localization sequence of CHI3L1 in colonic epithelial cells

◯ Emiko Mizoguchi[1, 2], Toshiyuki Okada[1, 3], Atsushi Mizoguchi[1]

Kurume University School of Medicine[1], Brown University Alpert Medical School[2], Institute of Life Science, Kurume University[3]

2-E-WS16-14-O/P

Lipid-orchestrated acceleration of Epstein-Barr virus-induced B-cell lymphoma via the secreted phospholipase A2-mediated modification of tumor-derived extracellular vesicles

◯ Kudo Kai[1, 2], Yoshimi Miki[3], Joaquim Carreras[4], Yamamoto Kei[5], Higuchi Hiroshi[6], Morita Shin-ya[7], Inoue Asuka[8], Aoki Junken[9], Nakamura Naoya[4], Murakami Makoto[3], Kotani Ai[1, 2]

Department of Innovative Medical Science, Tokai University School of Medicine; Isehara, Japan[1], Division of Hematological Malignancy, Institute of Medical Sciences, Tokai University, Isehara, Japan[2], Laboratory of Microenvironmental Metabolic Health Sciences, Center for Disease Biology and Integrative Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan[3], Department of Pathology, Tokai University School of Medicine, Isehara, Japan[4], Division of Bioscience and Bioindustry, Graduate School of Technology, Industrial and Social Sciences, Tokushima University, Tokushima, Japan[5], Center for Cancer Immunology and Cutaneous Biology Research Center, Center for Cancer Research, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA[6], Department of Pharmacy, Shiga University of Medical Science Hospital, Otsu, Japan[7], Department of Pharmaceutical Sciences, Tohoku University, Sendai, Japan[8], Department of Health Chemistry, Graduate School of Pharmaceutical Sciences, University of Tokyo, Tokyo, Japan[9]

2-E-WS16-21-O/P

DNAM-1 promotes inflammation-driven tumor development via enhancing IFN-γ production

◯ Yuho Yuho Nakamura-Shinya[1, 2], Akiko Iguchi-Manaka[1], Rikito Murata[1, 2], Kazuki Sato[1, 3], Kazumasa Kanemaru[1], Akira Shibuya[1, 3], Kazuko Shibuya[1, 3]

Departments of Immunology and Breast and Endocrine Surgery, Faculty of Medicine, University of Tsukuba[1], Doctoral Program of Clinical Sciences, Comprehensive Human Sciences, and Ph.D. Program in Human Biology, University of Tsukuba[2], Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, and R&D Center for Innovative Drug Discovery, University of Tsukuba[3]

December 10

WS17 Immune responses to pathogen infection

14:05~15:20 Room A

Chairpersons: Manabu Ato, Miwa Sasai

COVID-19 arises critical but unanswered questions in the point of immunological view: e.g. mechanisms by which some patients undergo severe illness with massive inflammation in the lung, 'stealth' ability of the virus in asymptomatic patients, and quick disappearance of neutralizing antibodies. Indeed, immunology has been originally developed as a scientific approach to visualize prevention and healing process of infectious diseases. However, complexity of immune responses containing plural variables (host and pathogens) left this research field behind others. Now that progress of data technology and huge attention among public enable to leap over the hurdle. This workshop aims for participants to share ideas and findings regarding immune responses against pathogens including virus, bacteria, parasites, and fungi, which will transform researches in infection and immunity in the future.

3-A-WS17-03-O/P

Dectin-1/IL-15 pathway affords protection against acute invasive aspergillosis by regulating NK cell survival

◯ Fabio Yoshikawa[1], Maki Wakatsuki[1], Kosuke Yoshida[1], Rikio Yabe[1], Shota Torigoe[2], Sho Yamasaki[2], Glen Barber[3], Shinobu Saijo[1]

Division of Molecular Immunology, Medical Mycology Research Center, Chiba University, Chiba, Japan[1], Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Osaka, Japan[2], Department of Cell Biology, University of Miami Miller School of Medicine, Miami, Florida, USA[3]

3-A-WS17-07-O/P

APOBEC3A binds to human genomic DNA and regulates transcription from interferon stimulated response elements

◯ Manabu Taura[1, 2], Akiko Iwasaki[2, 3]

Laboratory of Bioresponse Regulation, Graduate School of Pharmaceutical Sciences, Osaka University, Suita, Osaka, Japan.[1], Department of Immunobiology, Yale University School of Medicine, New Haven, CT, USA.[2], Howard Hughes Medical Institute, Chevy Chase, MD, USA.[3]

3-A-WS17-11-O/P

Potential roles of IgA in the central nervous system in a viral model of multiple sclerosis

◯ Fumitaka Sato[1)], Seiichi Omura[1)], Ah-Mee Park[1)], Sundar Khadka[1)], Yumina Nakamura[1)], Aoshi Katsuki[1)], Kazuto Nishio[2)], Felicity N.E. Gavins[3)], Ikuo Tsunoda[1)]

Department of Microbiology, Kindai University Faculty of Medicine, Osaka, Japan[1)], Department of Genome Biology, Kindai University Faculty of Medicine, Osaka, Japan[2)], Department of Biosciences, College of Health and Life Sciences, Brunel University London, Uxbridge, United Kingdom[3)]

3-A-WS17-14-O/P

Recombinant BCG-prime and DNA-boost vaccination confers enhanced protection against Mycobacterium kansasii in mice

◯ Shihoko Komine-Aizawa[1)], Satoru Mizuno[2)], Kazuhiro Matsuo[2)], Takahiro Namiki[3)], Satoshi Hayakawa[1)], Mitsuo Honda[1)]

Division of Microbiology, Department of Pathology and Microbiology, Nihon University School of Medicine[1)], Japan BCG Laboratory[2)], Nihon University School of Medicine[3)]

3-A-WS17-17-O/P

Induction of IgE-mediated hypersensitivity by membrane vesicles derived from *Staphylococcus aureus*

◯ Krisana Asano[1)], Kouji Narita[2)], Akio Nakane[3)]

Department of Microbiology and Immunology, Hirosaki University Graduate School of Medicine, Aomori, Japan[1)], Institute for Animal Experimentation, Hirosaki University Graduate School of Medicine, Aomori, Japan[2)], Department of Biopolymer and Health Science, Hirosaki University Graduate School of Medicine, Aomori, Japan[3)]

3-A-WS17-21-O/P

mRNA contained lipid nanoparticles are promising malaria vaccine candidate: liver-predominant induction of cellular immunity against liver-stage malaria.

◯ Sayuri Nakamae[1)], Satoshi Miyagawa[1)], Koki Ogawa[2)], Jiun-Yu Jian[1)], Takeshi Annoura[3)], katsuyuki Yui[4, 5)], Kenji Hirayama[5)], Shigeru Kawakami[2)], Shusaku Mizukami[1)]

Dept. Immune Regulation, Shionogi Global Infectious Diseases Division, Institute of Tropical Medicine, Nagasaki University, Nagasaki, Japan[1)], Dept. Pharmaceutical Informatics, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Nagasaki, Japan[2)], Dept. Parasitology, National Institute of Infectious Diseases, Shinjuku-ku, Tokyo, Japan[3)], Div. Immunology, Dept. Molecular Microbiology and Immunology, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Nagasaki, Japan[4)], School of Tropical Medicine and Global Health, Nagasaki University, Nagasaki, Nagasaki, Japan[5)]

3-A-WS17-22-O/P

Adjuvant-mediated immunoprophylaxis against viral infection

◯ Jun Tsuchida[1)], Kouji Kobiyama[1)], Masamitsu Asaka[2)], Daichi Utsumi[2)], Yasuhiro Yasutomi[2)], Ken Ishii[1)]

Division of vaccine science, Department of microbiology and immunology, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan[1)], Laboratory of Immunoregulation and Vaccine Research, Tsukuba Primate Research center, Nation Institutes of Biomedical Innovation, Health and Nutrition, Ibaraki, Japan[2)]

WS18 Innate lymphocytes

14:05~15:20 Room B

Chairpersons: Yuki Kinjo, Kazuyo Moro

In this workshop, we will discuss the studies on γδ T cells, NKT cells, NK cells and ILCs which do not have strict antigen specificity like T cells. This workshop will not only focus on new effector and regulatory mechanisms of the innate lymphocytes but also offer a number of talks on development, homeostasis and pathogenesis. γδ T cells, NKT cells and NK cells participate in antimicrobial and antitumor responses, and other functions such as regulation of inflammation and augmentation of antibody production are also gathering attention. When the field of ILC research was first established, much of the discussion was about the classification and phenotype of ILCs, but more recently, attention has begun to focus on the interaction of ILCs with other cells and the mechanisms of ILC-induced diseases. Let's have a lively discussion to make up for last year's JSI meeting which was focused on COVID-19.

3-B-WS18-01-O/P

γδ T cells regulate differentiation of antigen specific CD4⁺ T cells during malaria

◯ Shin-Ichi Inoue[1)], Ganchimeg Bayarsaikhan[1)], Jiun-Yu Jian[1)], Ntita Mbaya[1)], Sanjaadorj Tsogtsaikhan[1)], Malou Macalinao[2)], Kazumi Kimura[1)], Katsuyuki Yui[1, 2, 3)]

Division of Immunology, Department of Molecular Microbiology and Immunology, Graduate School of Biomedical Sciences, Nagasaki University, Japan [1)], School of Tropical Medicine and Global Health (TMGH), Nagasaki University, Japan[2)], Institute of Tropical Medicine, Nagasaki University, Japan[3)]

3-B-WS18-02-O/P

Gr-1^{+} cells influence on the differentiation of follicular helper Natural killer T cells

◯ Yasuhiro Kamii[1, 2], Koji Hayashizaki[1, 3], Toshio Kanno[4], Yusuke Endo[4], Yoshimasa Takahashi[3], Yuki Kinjo[1, 3, 5]

Department of Bacteriology, The Jikei University School of Medicine, Tokyo, Japan[1], Division of Respiratory Diseases, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan[2], Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Tokyo, Japan[3], Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, Chiba, Japan[4], Intelligent Network for Infection Disease, Tohoku University Graduate School of Medicine, Miyagi, Japan[5]

3-B-WS18-03-O/P

Regulatory role of Protein phosphatase 2A on T-bet expression and effector function of NK cell

◯ Yui Yamamae, Yoshihiro Hayakawa

Section of Host Defences, Institute of Natural Medicine, University of Toyama, Toyama, Japan

3-B-WS18-04-O/P

The role of Innate lymphoid cells in endometriosis

◯ Kentaro Kubota[1, 2], Tsuyoshi Kiniwa[1], Kazuyo Moro[1, 2]

Laboratory for Innate Immune Systems, Department of Immunology and Microbiology, Osaka University Graduate School of Medicine, Osaka, Japan[1], Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Sciences (IMS), Kanagawa , Japan[2]

3-B-WS18-05-O/P

NFIL3 is an important switcher controlling functional specification of ILC2 and ILC1

◯ Ameer ali Bohio[1], Kosuke Miyauchi[2], Masato Kubo[1, 2]

Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Japan[1], Laboratory for Cytokine Regulation, RIKEN Center for Integrative Medical Sciences (IMS), RIKEN Yokohama Institute, Japan[2]

3-B-WS18-06-O/P

Single-cell analysis of gene expression transition of ILC2 associated with the exertion of secretory function

◯ Yoshitaka Shirasaki[1], Yasutaka Motomura[2], Takashi Kamatani[3], Hiroki Kabata[4], Koichi Fukunaga[4], Kazuyo Moro[2]

Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan[1], Graduate School of Medicine, Osaka University, Osaka, Japan[2], Graduate School of Sciences, The University of Tokyo, Tokyo, Japan[3], Department of Medicine Keio University School of Medicine, Tokyo, Japan[4]

3-B-WS18-07-O/P

Serotonin-producing mast cells suppress ILC2 function in fungus-induced asthma

◯ Kiniwa Tsuyoshi[1], Moro Kazuyo[1, 2]

Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Sciences (IMS)[1], Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center[2]

3-B-WS18-08-O/P

Role of ILC2s in the recurrent nasal polyposis of eosinophilic chronic rhinosinusitis

◯ Yasutaka Motomura[1, 2, 3], Kazuyo Moro[1, 2, 3, 4]

Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University[1], Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (iFReC)[2], Laboratory for Innate Immune Systems, RIKEN IMS[3], Laboratory for Innate Immune Systems, Graduate School of Frontier Biosciences, Osaka University[4]

3-B-WS18-09-O/P

Characterization and composition of innate lymphoid cells in pediatric and adult allergic patients

◯ Yuko Okuyama[1], Tomomi Musha[1], Mizuna Fujita[1], Takeshi Kawabe[1], Atsuko Asao[1], Rina Morishita[1], Toshiya Takahashi[2], Maki Ozawa[2], Kenshi Yamasaki[2], Yohei Watanabe[3], Satoshi Horino[4], Yuji Saita[5], Yuji Nagano[5], Masaki Abe[5], Setsuya Aiba[2], Katsushi Miura[4], Naoto Ishii[1]

Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Miyagi, Japan[1], Department of Dermatology, Tohoku University Graduate School of Medicine, Miyagi, Japan[2], Department of Pediatrics, Sendai Medical Center, Miyagi, Japan[3], Department of Allergy, Miyagi Children's Hospital, Miyagi, Japan[4], Drug discovery Research, Astellas Pharma Inc., Ibaraki, Japan[5]

WS19 Cytokines and Chemokines

14:05~15:20 Room C

Chairpersons: Shinobu Saijo, Takumi Maruhashi

These molecules play essential roles in many aspects of immune regulation, including cell trafficking, anti-microbial immunity, adaptive immune responses, maintain homeostasis, and promote inflammation. Manipulating their expression or signal transduction via receptors could lead to therapies for various diseases, not only for inflammatory diseases but also for infectious diseases. Therefore, a comprehensive understanding of the cytokine/chemokine network is crucial. In this workshop, we will mainly focus on how cytokines and chemokines and their signaling pathways control the immune functions, the new roles of the molecules, and the therapeutic strategies that target the molecules. We hope this session will help in extending our knowledge of how cytokines/chemokines communicate to maintain homeostasis.

3-C-WS19-01-O/P

The molecular mechanism of the crosstalk between the β_2-adrenergic receptor and chemokine receptors in lymphocytes

◯ Akiko Nakai[1, 2)], Kazuhiro Suzuki[1, 2, 3)]

Laboratory of Immune Response Dynamics, WPI Immunology Frontier Research Center, Osaka University, Osaka, Japan.[1)], Department of Immune Response Dynamics, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan.[2)], Center for Infectious Disease Education and Research, Osaka University[3)]

3-C-WS19-07-O/P

A cell migration-promoting molecule FROUNT regulates macrophage activation

◯ Etsuko Toda[1, 2)], Yuya Terashima[2)], Kouji Matsushima[2)]

Department of Analytic Human Pathology, Nippon Medical School, Tokyo, Japan[1)], Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences (RIBS), Tokyo University of Science, Chiba, Japan[2)]

3-C-WS19-10-O/P

The role of underlying diseases-derived soluble ST2 in influenza infection

◯ Pei-Chi Lo

Laboratory for Innate Immune Systems, Graduate School of Medicine, Osaka University, Osaka, Japan

3-C-WS19-12-O/P

A neddylation inhibitor Pevonedistat inactivates Regnase-1 via MALT1-mediated cleavage

◯ Yuki Komori, Ryuta Muromoto, Tadashi Matsuda

Department of immunology, Graduate school of Pharmaceutical Sciences, Hokkaido University, Hokkaido, Japan

3-C-WS19-13-O/P

Manipulating the expression of Regnase-1 by antisense oligonucleotides to counteract inflammatory diseases

◯ Ka Man Tse, Takashi Mino, Takuya Uehata, Keiko Yasuda, Masanori Yoshinaga, Osamu Takeuchi

Department of Medical Chemistry, Graduate School of Medicine, Kyoto University, Kyoto, Japan

3-C-WS19-18-O/P

Extracellular adenosine induces hypersecretion of IL-17A by T-helper 17 cells through the adenosine A2a receptor to promote neutrophilic inflammation

◯ Masaaki Kawano[1)], Mieko Tokano[1, 2)], Rie Takagi[1)], Toshimasa Yamamoto[2)], Sho Matsushita[1, 3)]

Department of Allergy and Immunology, Faculty of Medicine, Saitama Medical University, Moroyama, Saitama, Japan[1)], Department of Neurology, Saitama Medical University, Moroyama, Saitama, Japan[2)], Allergy Center, Saitama Medical University, Moroyama, Saitama, Japan[3)]

3-C-WS19-19-O/P

Interferon-β promotes the survival and function of induced regulatory T cells

◯ Nanako Nishiyama[1, 2)], Chigusa Nakahashi-Oda[1, 3)], Akira Shibuya[1, 3, 4)]

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

3-C-WS19-25-O/P

Therapeutic effects of genetic and chemical targeting of IRF5 on experimental SLE

◯ Tatsuma Ban[1)], Masako Kikuchi[1, 2)], Go Sato[1)], Akio Manabe[1)], Akira Nishiyama[1)], Ryusuke Yoshimi[3)], Hideyuki Yanai[4)], Tadashi Yamamoto[5)], Tadatsugu Taniguchi[4)], Shuichi Ito[2)], Tomohiko Tamura[1, 6)]

Department of Immunology, Yokohama City University Graduate School of Medicine, Yokohama, Japan[1)], Department of Pediatrics, Yokohama City University Graduate School of Medicine, Yokohama, Japan[2)], Department of Stem Cell and Immune Regulation, Yokohama City University Graduate School of Medicine, Yokohama, Japan[3)], Department of Inflammology, Social Cooperation Program, Research Center for Advanced Science and Technology, University of Tokyo, Tokyo, Japan[4)], Cell Signal Unit, Okinawa Institute of Science and Technology Graduate University, Okinawa, Japan[5)], Advanced Medical Research Center, Yokohama City University, Yokohama, Japan[6)]

3-C-WS19-27-O/P

Card9 is crucial for bone marrow-derived inflammatory macrophage differentiation induced by GM-CSF

◯ Ei'ichi Iizasa[1)], Hideo Mitsuyama[1, 2)], Yuki Oyamada[1)], Hiromasa Inoue[2)], Hiromitsu Hara[1)]

Department of Immunology, Graduate School of Medical and Dental Sciences, Kagoshima University[1)], Department of Pulmonary medicine, Graduate School of Medical and Dental Sciences, Kagoshima University[2)]

WS20 T cell development and function

14:05~15:20 Room D

Chairpersons: Motoko Kimura, Takeshi Nitta

T cells undergo differentiation and selection in the thymus to shape diverse TCR repertoire, and acquire effector and memory functions upon encountering with various pathogens in the periphery. Multiple mechanisms, including TCR signaling, cytokine signaling, transcription factors, and cellular metabolism, exert key controls on the development and function of T cells. In this session, we would like to discuss several topics on early T cell development, repertoire selection in the thymus, and memory T cell differentiation and function in the periphery. We hope that the discussion in this workshop will advance our understanding of the molecular basis of T cell development and function, for controlling immune responses against infections as well as tumors.

3-D-WS20-01-O/P

Notch family members cooperate to drive early T cell development via direct and indirect regulation of stage-specific target genes

◯ Hiroyuki Hosokawa

Department of Immunology, Tokai University School of Medicine

3-D-WS20-02-O/P

The Synergic Role of E2A and Notch signaling in T cell lineage-specific enhancer regulome

◯ Kazuko Miyazaki, Hiroshi Kawamoto, Masaki Miyazaki

Institute for Frontier Medical and Life Sciences, Kyoto University

3-D-WS20-08-O/P

Dynamic THEMIS subcellular localization is essential for its function

◯ Kiyokazu Kakugawa, Hilde Cheroutre

Riken, IMS, Laboratory for Immune Crosstalk

3-D-WS20-09-O/P

Phosphorylation of the last tyrosine residue regulates Runx1 function during T cell development

◯ Chihiro Ogawa[1)], Satoshi Kojo[1, 2)], Kazuki Okuyama[1)], Sawako Muroi[1)], Ichiro Taniuchi[1)]

Laboratory for Transcriptional Regulation, RIKEN Center for Integrative Medical Sciences, Kanagawa, Japan[1)], Division of Mucosal Immunology, Research Center for Systems Immunology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan[2)]

3-D-WS20-14-O/P

IL-12 derived from type 1 dendritic cells tonically promotes the differentiation of innate T-bet^{high} memory-phenotype CD4^{+} T lymphocytes in steady state

◯ Takeshi Kawabe[1, 2)], Jaeu Yi[3, 4)], Akihisa Kawajiri[1)], Kerry Hilligan[2)], Difeng Fang[5)], Naoto Ishii[1)], Hidehiro Yamane[6)], Jinfang Zhu[5)], Dragana Jankovic[2)], Kwang Soon Kim[3, 4)], Giorgio Trinchieri[7)], Alan Sher[2)]

Department of Microbiology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan.[1)], Immunobiology Section, Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), Bethesda, MD, USA.[2)], Academy of Immunology and Microbiology, Institute for Basic Science, Pohang, Republic of Korea.[3)], Department of Integrative Biosciences and Biotechnology, Pohang University of Science and Technology, Pohang, Republic of Korea.[4)], Molecular and Cellular Immunoregulation Section, Laboratory of Immune System Biology, NIAID, NIH, Bethesda, MD, USA.[5)], Laboratory of Cellular and Molecular Biology, Center for Cancer Research (CCR), National Cancer Institute (NCI), NIH, Bethesda, MD, USA.[6)], Cancer and Inflammation Program, CCR, NCI, NIH, Bethesda, MD, USA.[7)]

3-D-WS20-16-O/P

Bone marrow and splenic memory CD4 T cells are differently maintained in terms of cytokine signals, cell adhesion and cellular metabolism

◯ Uki Kimura[1)], Mathias Mursell[2)], Sano Nagano[1)], Koji Tokoyoda[1, 2)]

Division of Immunology, School of Life Science, Faculty of Medicine, Tottori University, Tottori, Japan.[1)], Deutsches Rheuma-Forschungszentrum Berlin, Leibniz Institute, Berlin, Germany.[2)]

3-D-WS20-19-O/P

Durable and Diverse Memory T Cell Responses against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)

◯ Masanori Isogawa, Kazutaka Terahara, Yu Adachi, Keisuke Tonouchi, Saya Moriyama, Ryutaro Iwabuchi, Tomohiro Takano, Ayae Nishiyama, Lin Sun, Taishi Onodera, Takayuki Matsumura, Yoshimasa Takahashi
Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Tokyo, Japan

3-D-WS20-23-O/P

Rejuvenating effector/exhausted CAR-T cells to stem cell memory-like CAR-T cells by resting them in the presence of CXCL12 and the NOTCH ligand

◯ Makoto Ando, Akihiko Yoshimura
Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan

WS21 Macrophage in inflammation and diseases

14:05~15:20 Room E

Chairpersons: Nobuyuki Onai, Masako Kohyama

Macrophages and neutrophils are found in all tissues and have critical roles in immunity, inflammatory diseases, and homeostasis. These cells are highly heterogeneous and most plastic cells among immune cells, display diverse activities in response to different inflammatory stimulation. In this session, we would like to discuss multiple aspects of macrophages and neutrophils in inflammation and disease settings. We welcome active and constructive discussion to extend insight into multiple functions of macrophages and neutrophils.

3-E-WS21-01-O/P

An endoplasmic reticulum stress sensor IRE1α is involved in cholera toxin-induced interleukin-1β production from resident peritoneal macrophages

◯ Izumi Sasaki[1)], Yuri Fukuda-Ohta[1)], Shuhei Morita[2)], Daisuke Okuzaki[3)], Takashi Kato[1)], Takashi Orimo[1)], Koichi Furukawa[4)], Tsuneyasu Kaisho[1)]
Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Wakayama, Japan[1)], First Department of Medicine, Wakayama Medical University, Wakayama, Japan [2)], Genome Information Research Center, Research Institute for Microbial Diseases, Osaka University, Suita, Japan[3)], Department of Lifelong Sports and Health Sciences, Chubu University College of Life and Health Sciences, Kasugai, Japan[4)]

3-E-WS21-02-O/P

Unexpected role of atypical cyclin in mediating macrophage functionality via metabolic regulation

◯ Yee Kien Chong, Osamu Takeuchi
Department of Medical Chemistry, Graduate school of Medicine, Kyoto University

3-E-WS21-03-O/P

Deciphering the role of Regnase-1 in the pathophysiology of pulmonary arterial hypertension

◯ Ai Yaku[1, 2)], Yusuke Manabe[3, 4)], Osamu Takeuchi[1)]
Department of Medical Chemistry, Kyoto University Graduate School of Medicine, Kyoto, Japan.[1)], Department of Rheumatology and Clinical Immunology, Kyoto University Graduate School of Medicine, Kyoto, Japan.[2)], Department of Vascular Physiology, Research Institute National Cerebral and Cardiovascular Center, Osaka, Japan.[3)], Department of Respiratory Medicine, Allergy and Rheumatic diseases, Osaka University Graduate School of Medicine, Osaka, Japan.[4)]

3-E-WS21-04-O/P

Analysis of M2 macrophage polarization regulated by transglutaminase 2 in kidney fibrosis

◯ Yoshiki Shinoda, Hideki Tatsukawa, Kiyotaka Hitomi
Cellular Biochemistry Lab., Graduate School of Pharmaceutical Sciences, Nagoya University, Tokai National Higher Education and Research System, Nagoya, Japan

3-E-WS21-05-O/P

The role of an immune-inhibitory receptor CD300a in acute renal ischemia-reperfusion

◯ Hitoshi Koizumi, Chigusa Nakahashi-Oda, akira shibuya
Department of Immunology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

3-E-WS21-06-O/P

Placenta-expressed transcript-1, a novel immunosuppressive molecule, inhibits inflammatory cytokine production during bacterial infection

◯ Jun Kasamatsu[1)], Hiroki Iwaoka[2)], Ko Sato[2)], Hiromasa Tanno[3)], Emiko Kanno[3)], Keiko Ishii[2)], Kazuyoshi Kawakami[1, 2)]
Department of Intelligent Network for Infection Control, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan[1)], Department of Medical Microbiology, Mycology, and Immunology, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan[2)], Department of Science of Nursing Practice, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan[3)]

3-E-WS21-07-O/P

Basophils promote the generation of highly phagocytic M2 macrophages which dampen excess inflammation at the resolution phase of allergic inflammation

◯ Kensuke Miyake[1)], Kazufusa Takahashi[1)], Junya Ito[1)], Jun Nakabayashi[2)], Shigeyuki Shichino[3)], Soichiro Yoshikawa[1, 4)], Hajime Karasuyama[1)]

Advanced Research Institute, Tokyo Medical and Dental University (TMDU)[1)], College of Liberal Arts and Sciences, Tokyo Medical and Dental University (TMDU)[2)], Research Institute of Biomedical Sciences, Tokyo University of Science[3)], Department of Cellular Physiology, Okayama University[4)]

3-E-WS21-08-O/P

U1 RNP can induce NETosis to isolated mouse neutrophils through NOX2 independent pathway

◯ Emiko Takeuchi[1)], Makoto Otsu[2)], Yasuo Takeuchi[3)], Kazuya Iwabuchi[1)]

Department of Immunology, Kitasato University School of Medicine, Kanagawa Japan[1)], Department of transfusion and cell transplant, Kitasato University School Of Medicine[2)], Department of Nephrology, Kitasato University School of Medicine[3)]

WS22 Human Immunology

14:05~15:20 Room F

Chairpersons: Ryuta Nishikomori, Satoshi Yamasaki

On human immunology session, we have abstracts on a variety of topics such as autoimmune diseases, autoinflammatory diseases, human immunity, vaccine-related studies, SARS-CoV-2, infection, primary immunodeficiency, and therapy development. To tackle the limitations of the study on the human being, the authors have managed to adopt various techniques, like multi-omics study, disease-mouse models including humanized mice, and iPS cell technology in addition to investigating on human-derived samples. We chose 8 superb abstracts for the oral session based upon the novelty and the impact on the understanding of human immunology as well as application to the therapy. I hope that each participant contributes to the discussions to deepen the understanding of the human immune system.

3-F-WS22-01-O/P

JAK inhibitor downregulates the expression of NOD2 induced by IFN-γ; a possible therapeutic strategy for Blau syndrome

◯ Riko Ito[1)], Naotomo Kambe[1)], Megumu Saito[2)], Kenji Kabashima[1)]

Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto[1)], Department of Clinical Application, Center for iPS cell research and application (CiRA), Kyoto University, Kyoto[2)]

3-F-WS22-02-O/P

T- and B-cell abnormalities associated with an IKZF3 miss-sense mutation

◯ Jingjie Chang[1)], Hye Sun Kuehn[2)], Junji Harada[1)], Chengcheng Zou[1)], Kazuki Okuyama[1)], Sergio D Rosenzweig[2)], Ichiro Taniuchi[1)]

Laboratory For Transcriptional Regulation, RIKEN Center For Integrative Medical Sciences, Kanagawa, Japan[1)], Immunology Service, Department Of Laboratory Medicine, Clinical Center, NIH, Maryland, Bethesda, USA[2)]

3-F-WS22-03-O/P

Investigation of host-derived proteins in gastrointestinal fluid of infants with DIA-MS-based proteomic analysis

◯ Tomo Kakihara[1)], Eiichiro Watanabe[2)]

Department Of Pediatric Surgery, Faculty Of Medicine, University Of Tokyo, Bunkyo-ku, Tokyo, Japan[1)], Division Of Surgery, National Center For Child Health And Development, Setagata-ku, Tokyo, Japan.[2)]

3-F-WS22-04-O/P

Angiopoietin like 4 plays a critical role in the development of pulmonary fibrosis

◯ Masahiro Kitabatake[1)], Shoichiro Saito[1)], Noriko Ouji-Sageshima[1)], Akihisa Oda[2)], Atsushi Hara[1)], Tatsuro Ogawa[3)], Shigeyuki Shichino[3)], Satoshi Ueha[3)], Kouji Matsushima[3)], Toshihiro Ito[1)]

Department of Immunology, Nara Medical University, Nara, Japan[1)], Department of Pediatrics, Nara Medical University, Nara, Japan[2)], Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute of Biomedical Sciences, Tokyo University of Science, Chiba, Japan[3)]

3-F-WS22-05-O/P

Functional analysis of rare variants associated with SLE using patients derived iPS cells

◯ Bunki Natsumoto[1)], Hirofumi Shoda[1)], Yasuo Nagafuchi[1)], Makoto Otsu[2)], Kazuhiko Yamamoto[3)], Hideki Taniguchi[4)], Keishi Fujio[1)]

Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan.[1)], Department of Transfusion and Cell Transplantation, Kitasato University School of Medicine.[2)], Laboratory for Autoimmune Diseases, Center for Integrative Medical Sciences, RIKEN, Yokohama, Japan.[3)], Division of Stem Cell Processing/Stem Cell Bank, Center for Stem Cell Biology and Regenerative Medicine, Institute of Medical Science, The University of Tokyo, Tokyo, Japan.[4)]

3-F-WS22-06-O/P

Control of naive and effector CD4 T cell receptor repertoires by rheumatoid-arthritis-risk HLA alleles

◯ Yasuo Nagafuchi[1, 2], Mineto Ota[1, 2], Hiroaki Hatano[1], Mariko Inoue[1], Masahiro Nakano[1], Saeko Yamada[1], Ryochi Yoshida[1], Hirofumi Shoda[1], Yukinori Okada[3], Kazuhiko Yamamoto[1, 4], Tomohisa Okamura[1, 2], Keishi Fujio[1]

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3-F-WS22-07-O/P

Genetic diversity of immune receptors *LILRB3* and *LILRA6* suggests their interaction with bacteria

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3-F-WS22-08-O/P

Broad neutralization activity of SARS-CoV-2 antibody is achieved by coordinated recognition of virus vulnerable site

◯ Taishi Onodera[1], Yu Adachi[1], Saya Moriyama[1], Takeshi Inoue[2], Shuuhei Sakakibara[3], Keisuke Tonouchi[1], Lin Sun[1], Mitsuo Oshimura[4], Tomohiro Kurosaki[2], Katsumi Maenaka[5], Yoshimasa Takahashi[1]

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Poster

◯ : Presenter

December 8

WS1 Tolerance and Immune Suppression

Discussers: Miyuki Azuma, Shunsuke Chikuma, Takumi Maruhashi, Junko Morimoto, Ryuichi Murakami, Naoko Nakano, Shinya Tanaka, Ei Wakamatsu

1-A-WS1-01-O/P

Aire suppresses CTLA-4 expression from medullary thymic epithelial cells to avoid autoimmunity

◯ Junko Morimoto[1)], Minoru Matsumoto[1)], Ryuichiro Miyazawa[1)], Hideyuki Yoshida[2)], Mitsuru Matsumoto[1)]

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1-A-WS1-02-O/P

LAG-3 engagement with stable pMHCII is essential for the exertion of its inhibitory function

◯ Takumi Maruhashi, Daisuke Sugiura, Il-mi Okazaki, Kenji Shimizu, Taku Okazaki

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1-A-WS1-03-P

Identification and characterization of novel receptors for HLA-G2

◯ Hiroshi Watanabe, Kimiko Kuroki, Katsumi Maenaka

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1-A-WS1-04-P

PD-1 elicitation by the dissociation of *cis*-PD-L1/CD80 duplex inhibits T cell activation and alleviates autoimmunity

◯ Daisuke Sugiura[1)], Il-mi Okazaki[1)], Takumi Maruhashi[1)], Kenji Shimizu[1)], Reiko Arakaki[2)], Naozumi Ishimaru[2)], Taku Okazaki[1)]

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1-A-WS1-05-P

Function of PD-1 expressed on neonatal CD4$^+$T cells

◯ Satoshi Fujiyama[1)], Syusuke Takeuchi[1)], Motomichi Nagafuji[1)], Hidetoshi Takada[1, 2)]

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1-A-WS1-06-P

CD45 Modulation Recovers Resistance to PD-1 Blockade Cancer Immunotherapy

◯ Sara Delghandi, Kenji Chamoto, Yuka Nakajima, Tasuku Honjo

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1-A-WS1-07-P

Differential involvement of programmed cell death ligands in skin immune responses

◯ Ryota Tanaka[1, 2)], Yuki Ichimura[1)], Noriko Kubota[1)], Yoshiyuki Nakamura[1)], Yosuke Ishitsuka[1, 3)], Rei Watanabe[1, 3)], Yasuhiro Fujisawa[1)], Seiya Mizuno[4)], Satoru Takahashi[4)], Manabu Fujimoto[1, 5)], Toshifumi Nomura[1)], Naoko Okiyama[1)]

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1-A-WS1-08-P

Mice lacking death ligand-induced cell death develop Pneumocystis pneumonia

◯ Soh Yamazaki[1)], Shin Yonehara[2)], Hiroyasu Nakano[1)]

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1-A-WS1-09-P

TIGIT plays a critical role as ligand for inducing CD155 mediated suppressor potential to be tolerance

◯ Naoko Negishi[1, 2)], Takehito Sato[3)], Kazuko Shibuya[4)], Kametani Yoshie[5)], Koichiro Uchida[6)], Jiro Kitaura[1)], Ko Okumura[1)], Sonoko Habu[1)]

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1-A-WS1-10-O/P

Role of Ten-eleven translocation (Tet) in B cell self-tolerance

◯ Shinya Tanaka[1)], Wataru Ise[2)], Tomohiro Kurosaki[2, 3)], Yoshihiro Baba[1)]

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1-A-WS1-11-O/P

Foxp3 changes its genomic binding sites following BATF-dependent effector differentiation of Treg cells

◯ Ryuichi Murakami, Shohei Hori

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1-A-WS1-12-P

Foxp3^{A384T} mutation impairs T cell receptor-stimulation dependent proliferation of regulatory T cells independently of *Batf* repression

◯ Suzu Kawagoe, Maori Oda, Ryuuichi Murakami, Shohei Hori

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

1-A-WS1-13-O/P

Harnessing immunity by manipulation of the flanking residues of self-dominant peptide regulating its binding capacity with MHC that determined the stability of tissue antigen-specific regulatory T cells

◯ Youwei Lin[1, 2)], Takashi Yamamura[2)]

Department of Neurology, National Center Hospital, National Center of Neurology and Psychiatry[1)], Department of Immunology, National Institute of Neuroscience, National Center of Neurology and Psychiatry[2)]

1-A-WS1-14-P

Enforced expression of SOCS1 leads to the progression of lupus pathology with the stable suppressive function of regulatory T cells

◯ Reiko Takahashi, Yoshitaka Imura

Clinical Immunology and Rheumatology, Tazuke Kofukai Medical Research Institute, Kitano Hospital

1-A-WS1-15-O/P

Proenkephalin^{+} regulatory T cells expanded by ultraviolet B exposure maintain skin homeostasis with a healing function

◯ Hiroaki Shime[1)], Mizuyu Odanaka[1)], Makoto Tsuiji[2)], Masaki Imai[1)], Yoshiaki Yasumizu[3)], Ryuta Uraki[1)], Anthony JB[4)], Hidehiro Fukuyama[5)], Naganari Ohkura[3, 6)], Shimon Sakaguchi[3)], Akimichi Morita[7)], Sayuri Yamazaki[1)]

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1-A-WS1-16-P

Skin regulatory T cells expanded by ultraviolet B exposure have a unique gene expression profile compared to other tissue Treg cells

◯ Mizuyu Odanaka[1)], Hiroaki Shime[1)], Makoto Tsuiji[2)], Masaki Imai[1)], Yoshiaki Yasumizu[3)], Ryuta Uraki[1)], Anthony JB[4)], Hidehiro Fukuyama[5)], Naganari Ohkura[6)], Shimon Sakaguchi[3)], Akimichi Morita[7)], Sayuri Yamazaki[1)]

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1-A-WS1-17-P

Foxp3+ regulatory T cells suppress chronic inflammation and fibrosis in the liver by regulating tissue cellular immunity in CCl_4-induced liver injury

◯ Daiya Ohara, Yusuke Takeuchi, Hitomi Watanabe, Gen Kondoh, Keiji Hirota

Laboratory of Integrative Biological Science, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan.

1-A-WS1-18-P

Generation of antigen-specific regulatory T cells with engineered exosome

◯ Shota Imai, Tomoyoshi Yamano, Xiabing Lyu, Iriya Fujitsuka, Yoshinori Hasebe, Rikinari Hanayama

The University of Kanazawa, Ishikawa, Japan

1-A-WS1-19-P

Recruitment of Foxp3 Treg is not sufficient to suppress target inflammation

◯ Yoshihiro Oya[1, 2)], Ryutato Matsumura[2)], Hiroshi Nakajima[3)], Ethan Shevach[4)]

Laboratory of Autoimmune diseases, National Hospital Organization Chibahigashi National Hospital, Chiba, Japan[1)], Department of Rheumatology, Allergy & Clinical Immunology, National Hospital Organization Chibahigashi National Hospital, Chiba, Japan[2)], Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan[3)], Cellular Immunology Section, Laboratory of Immunology National Institute of Allergy and Infectious Diseases, National Institutes of Health, MD, USA[4)]

1-A-WS1-20-P

RORγt^{+}Foxp3^{+} regulatory T cells in the regulation of autoimmune arthritis

◯ Kotona Furuyama, Yuya Kondo, Masaru Shimizu, Reona Tanimura, Hiroto Tsuboi, Isao Matsumoto, Takayuki Sumida

Department of Internal Medicine, Faculty of Medicine, University of Tsukuba

1-A-WS1-21-O/P

Lactic acid signaling induces the expression of immune checkpoints by regulatory T cells in the tumor microenvironment

◯ Shogo Kumagai[1, 2)], Shohei Koyama[2)], Hiroyoshi Nishikawa[2)]

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1-A-WS1-22-O/P

The importance of nutritional signals in regulating oral tolerance

◯ Motoyoshi Nagai[1, 2)], Takuma Okawa[1, 2)], Kazuaki Nakata[1)], Koji Hase[2)], Yuki Kawamura[1)]

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1-A-WS1-23-P

Establishment of an evaluation method for donor HLA antigen sensitization using CD14 monocytes from organ transplant recipients

◯ Kenta Iwasaki[1)], Takashi Sekiya[2)], Hiroshi Hamana[3)], Hiroyuki Kishi[3)]

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1-A-WS1-24-P

Suppression of hepatic allograft rejectionby depleting donor immunogenic dendritic cells: implication of donor-specific transfusion

◯ Hisashi Ueta, Yusuke Kitazawa, Yasushi Sawanobori, Kenjiro Matsuno, Nobuko Tokuda

Department of Anatomy, Dokkyo Medical University

1-A-WS1-25-P

Involvement of p62 on activation of heme oxygenase-1 induced by quercetin

◯ Yuki Hayashi, Miyoko Matsushima, Ko Iwaki, Goki Inoue, Teppei Yamashita, Moeko Ohara, Hikaru Tsuzuki, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine

1-A-WS1-26-P

Effects of localization changes of caveolin-1 on cellular function induced by quercetin

◯ Hikaru Tsuzuki, Miyoko Matsushima, Goki Inoue, Ko Iwaki, Yuki Hayashi, Teppei Yamashita, Moeko Ohara, Tsutomu Kawabe

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1-A-WS1-27-P

Cell wall N-glycan of *Candida albicans* ameliorates early hyper- and late hypo-immunoreactivity in sepsis

Shuto Tanaka[1)], Kotaro Akaki[1)], Shinya Abe[2)], Takuma Asahi[2, 3)], Guangwei Cui[2)], Koichi Ikuta[2)], ◯ Kazuhiko Takahara[1)]

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1-A-WS1-28-P

Polymorphonuclear Myeloid-Derived Cells contributing to the Immune Paralysis Are Generated in the Early Phase of Sepsis through the PD-1/PD-L1 Pathway

Xiang Ao, Miyuki Azuma, ◯ Shigenori Nagai

東京医科歯科大学 大学院医歯学総合研究科 分子免疫学分野

1-A-WS1-29-P

Induction of immune tolerance by combination treatment with fingolimod (FTY720) plus pathogenic antigen in a glucose-6-phosphate isomerase peptide-induced arthritis mouse model: the seventh report

◯ Yuya Yoshida[1)], Norihisa Mikami[2)], Takumi Tsuji[1)], Takeyuki Kohno[1)]

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December 8

WS2 Innate immunity

Discussers: Ryutaro Fukui, Takayuki Matsumura, Miwa Sasai, Takashi Shimizu, Akinori Takaoka, Osamu Takeuchi, Sho Yamasaki

1-B-WS2-01-P

Machine learning-assisted screening of vaccine adjuvants

◯ Kou Hioki[1, 2)], Tomoya Hayashi[1, 2)], Kouji Kobiyama[1, 2)], Burcu Temizoz[1, 2)], Hideo Negishi[1)], Etsushi Kuroda[3)], Cevayir Coban[4)], Ken Ishii[1, 2)]

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1-B-WS2-02-P

Fbxo16, a F-box-containing protein, negatively regulates NF-kB- and IRF3/7-mediated innate immune responses in dendritic cells

◯ Takashi Tanaka

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1-B-WS2-03-P

Identification and functional analysis of nucleic acid-binding proteins (NBPs) involved in innate immune response

◯ Kengo Sawamura, Daisuke Ori, Taro Kawai

Nara Institute of Science and Technology

1-B-WS2-04-O/P

Myeloid cell dynamics predict clinical outcome of severe COVID-19

◯ Takayuki Matsumura, Tomohiro Takano, Yu Adachi, Kazutaka Terahara, Saya Moriyama, Taishi Onodera, Ayae Nishiyama, Yoshimasa Takahashi

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

1-B-WS2-05-P

The mechanism of acetylcholine-induced Paneth cell secretory responses in innate enteric immunity

◯ Yuki Yokoi[1, 2)], Shuya Ohira[2)], Mani Kikuchi[1)], Tokiyoshi Ayabe[1, 2)], Kiminori Nakamura[1, 2)]

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1-B-WS2-06-P

Anti-tumor response during intravesical immunotherapy with BCG for non-muscle invasive bladder cancer

◯ Yuji Takeda[1)], Tomoyuki Kato[2)], Shinichi Saitoh[1)], Akemi Araki[1)], Hironobu Asao[1)]

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1-B-WS2-07-O/P

The dynamics and roles of Innate lymphoid cells (ILCs) in pulmonary fibrosis

◯ Natsuko Otaki[1, 2, 3, 4)], Yasutaka Motomura[3, 5, 6)], Shigeo Koyasu[3)], Kouichiro Asano[7)], Kazuyo Moro[3, 5, 6, 8)], Tommy Terooatea[3)]

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1-B-WS2-08-P

Rhodobacter azotoformans LPS is a TLR4 agonist that suppresses cytokine storm and enhances TLR3-mediated chemokine expression

◯ Kaoru Murakami[1)], Daisuke Kamimura[2)], Rie Hasebe[1)], Mona Uchida[1)], Nobuya Abe[1)], Reiji Yamamoto[1)], Jing-Jing Jiang[1)], Hiroki Tanaka[3)], Shizuo Akira[3)], Yuki Tanaka[1)], Masaaki Murakami[1)]

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1-B-WS2-09-O/P

GRIM-19 is a target of mycobacterial Zn^{2+} metalloprotease 1 and indispensable for NLRP3 inflammasome activation

◯ Tomomi Kurane[1)], Masayuki Umemura[1, 2, 3)], Masaaki Nakayama[4)], Naoya Ohara[4)], Goro Matsuzaki[1, 2, 3)], Giichi Takaesu[1, 2, 3)]

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1-B-WS2-10-O/P

A point mutation within the function-to-find domain (FIIND) of human NLRP1 causes an autoinflammatory disease involving liver fibrosis and dyskeratosis

◯ Akie Maehara[1)], Taiki Ando[1, 2)], Kumi Izawa[1)], Tomoaki Ando[1)], Ayako Kaitani[1)], Anna Kamei[1, 3)], Hexing Wang[1, 3)], Koji Tokushige[1, 3)], Nobuhiro Nakano[1)], Naoto Tamura[2)], Ko Okumura[1)], Jiro Kitaura[1, 3)]

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1-B-WS2-11-P

Loss of FCHSD1 leads to amelioration of chronic obstructive pulmonary disease

◯ Takahiro Kawasaki[1, 2, 3)], Takashi Satoh[2, 3, 4)], Atsushi Kumanogoh[1)], Shizuo Akira[2, 3)]

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1-B-WS2-12-P

Analysis of gut microbiota and intestinal immune cells in a newly established dietary model of non-alcoholic steatohepatitis, "3-F mice"

◯ Kaichi Kasai[1)], Yuki Tada[1)], Yukihiro Furusawa[1)], Koichi Tsuneyama[2)], Yoshinori Nagai[1)]

Department of Pharmaceutical Engineering, Faculty of Engineering, Toyama Prefectural University[1)], Department of Pathology and Laboratory Medicine, Tokushima University Graduate School[2)]

1-B-WS2-13-O/P

LINE-1 activation in the cerebellum drives cerebellar ataxia

◯ Takehiro Takahashi[1)], Eriko Kudo[1)], Eric Song[1)], Fernando Carvalho[1)], Yong Kong[1)], Annsea Park[1)], Yuki Yasumoto[2)], Milan Stoiljkovic[2)], Xiao-Bing Gao[2)], Klara Szigeti-Buck[2)], Tamas Horvath[2)], Akiko Iwasaki[1, 3)]

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1-B-WS2-14-P

Inappropriate activation of innate immune cells in sterile inflammation in human preterm birth

◯ Yasuyuki Negishi[1, 2)], Masahiko Kato[2)], Yoshio Shima[3)], Shunji Suzuki[2)], Rimpei Morita[1)]

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1-B-WS2-15-P

Interaction of DCIR and asialo-N-glycan ameliorates experimental autoimmune encephalomyelitis by regulating DC function

◯ Tomonori Kaifu[1)], Soo-hyun Chung[2)], Rikio Yabe[2)], Takumi Maruhashi[3)], Akira Nakamura[1)], Yoichiro Iwakura[2)]

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1-B-WS2-16-O/P

N-glycan in the hMD-1 plays a key role on the cell surface expression of hRP105

◯ Mrityunjoy Biswas, Tatsuya Yamazaki, Susumu Tomono, Masanori Inui, Sachiko Akashi-Takamura

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1-B-WS2-17-P

Disruption of Z-RNA–binding of ADAR1 induces Aicardi-Goutières syndrome–like encephalopathy in mice

◯ Taisuke Nakahama, Yukio Kawahara
Department of RNA Biology and Neuroscience, Graduate School of Medicine, Osaka University

1-B-WS2-18-P

Pretreatment with radiation reduces acetaminophen-induced liver injury in mice

◯ Masahiro Nakashima[1)], Hiroyuki Nakashima[1)], Seki Shuhji[1)], Hiromi Miyazaki[2)], Manabu Kinoshita[1)]
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1-B-WS2-19-P

Oridonin as a potential therapeutic agent for microparticle-induced inflammatory diseases

◯ Naoki Takemura, Manabu Taura, Tatsuya Saitoh
Laboratory of Bioresponse Regulation, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan

1-B-WS2-20-P

The efficacy of post-treatment with synthetic C-reactive protein in murine bacterial peritonitis via activation of FcγRI-expressing Kupffer cells

◯ Manabu Kinoshita[1)], Seigo Ito[1)], Masahiro Nakashima[1)], Hiroyuki Nakashima[1)], Kazuki Kowai[1)], Azusa Kato[1)], Takeshi Ono[2)], Hiromi Miyazaki[3)], Kazuma Mori[1)], Shuhji Seki[1)]
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1-B-WS2-21-O/P

Unique location in the immunoproteasome complex of a variant causing proteasome-associated autoinflammatory syndrome with immunodeficiency

Jun Hamazaki[1)], ◯ Nobuo Kanazawa[2)], Hiroaki Hemmi[3)], Noriko Kinjo[4)], Hidenori Ohnishi[5)], Hiroyuki Mishima[6)], Akira Kinoshita[6)], Tsunehiro Mizushima[7)], Shigeo Murata[1)], Koh-ichiro Yoshiura[6)], Tsuneyasu Kaisho[8)]
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1-B-WS2-22-P

Involvement of NK cells in sepsis resistance in cystine/glutamate transporter-deficient mice

◯ Masashi Ohtani, Naoko Watanabe
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1-B-WS2-23-P

Small molecules regulating the Riplet ubiquitin ligase essential for cytoplasmic antiviral innate immune responses

◯ Tasuku Nishimura[1)], Takahisa Kouwaki[2)], Hiroyuki Oshiumi[2)]
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1-B-WS2-24-P

RIPLET ubiquitin ligase regulates ISG expression in response to viral infection via K63-linked polyubiquitination of LGP2

◯ Takahisa Kouwaki, Hiroyuki Oshiumi
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1-B-WS2-25-P

Signal kinetics via common FcRγ chain generates distinct cellular responses by altering chromatin landscape

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1-B-WS2-26-P

Potential link between dysbiosis and STING-associated autoinflammation and implications for autoinflammatory diseases

◯ Takayuki Shibahara[1)], Burcu Temizoz[2)], Koji Hosomi[3)], Jun Kunisawa[3)], Cevayir Coban[4)], Atsushi Kumanogoh[1)], Ken J. Ishii[2)]

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1-B-WS2-27-P

Enhanced interferon α production due to the senescence-associated secretory phenotype of lupus monocytes

◯ Taiga Kuga[1, 2)], Asako Chiba[1)], Kousuke Hosomi[1)], Tomoya Nakagawa[1)], Goh Murayama[2)], Makio Kusaoi[2)], Ken Yamaji[2)], Naoto Tamura[2)], Sachiko Miyake[1)]

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1-B-WS2-28-P

Direct activation of microglia by β-glucosylceramide exacerbates Gaucher disease

◯ Takashi Shimizu[1, 2, 3)], Atsushi Kumanogoh[3)], Sho Yamasaki[1, 2, 4)]

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1-B-WS2-29-O/P

Translationally-controlled tumor protein (TCTP) released by tumor cells orchestrates dynamics of myeloid-derived suppressor cells in the tumor microenvironment

◯ Sho Hangai, Hideyuki Yanai, Tadatsugu Taniguchi

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1-B-WS2-30-P

Investigation of PolyI:C-induced gene expression in primary cultured corneal epithelial cells of TLR3KO and IPS-1KO mice using comprehensive gene expression analysis

◯ Seitaro Komai[1)], Mayumi Ueta[1)], Shigeru Kinoshita[2)], Chie Sotozono[1)]

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1-B-WS2-31-P

Sa15-21, a monoclonal antibody to TLR4, enhances inflammatory cytokine production in LPS-stimulated macrophages

◯ Sajid Iftekhar Chowdhury, Masanori Inui, Susumu Tomono, Tatsuya Yamazaki, Sachiko Akashi-Takamura

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1-B-WS2-32-P

The role of RNase T2 in macrophage homeostasis

◯ Ryota Sato[1)], Kaiwen Liu[1)], Takuma Shibata[1)], Kensuke Miyake[1)], Ryutaro Fukui[1)], Katsuaki Hoshino[2)], Tsuneyasu Kaisho[3)]

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1-B-WS2-33-O/P

Anti-TLR7 antibody protects against lupus nephritis in NZBWF1 mice by targeting B cells and patrolling monocytes

◯ Ryutaro Fukui[1)], Yusuke Murakami[1, 2)], Reika Tanaka[1)], Yuji Motoi[1)], Atsuo Kanno[1)], Ryota Sato[1)], Hirofumi Amano[3)], Naomi Yamashita[2)], Kensuke Miyake[1)]

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December 8

WS3 Hematopoiesis and Immune Environment

Discussers: Taishin Akiyama, Ryo Goitsuka, Takako Hirata, Hiroshi Kawamoto, Masashi Kanayama, Tomoya Katakai, Yosuke Nagahata, Eriko Sumiya,Ichiro Taniuchi, Takuya Uehata

1-C-WS3-01-O/P

Post-transcriptional regulation of hematopoietic stem and progenitor cell lineage priming by RNases Regnase-1/-3 via *Nfkbiz* mRNA decay

◯ Takuya Uehata[1)], Daisuke Ori[2)], Masaki Miyazaki[3)], Amir Giladi[4)], Tomokatsu Ikawa[5)], Hiroshi Kawamoto[3)], Ido Amit[4)], Osamu Takeuchi[1)]

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1-C-WS3-02-O/P

Myeloid-like B cells boost emergency myelopoiesis during infection

◯ Masashi Kanayama, Yuta Izumi, Toshiaki Izumi

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1-C-WS3-03-O/P

Emergence and divergence of blood cells in evolution by 'On' and 'Off' of CEBPa

◯ Yosuke Nagahata[1, 2)], Kyoko Masuda[1)], Tomokatsu Ikawa[3)], Hiroshi Kawamoto[1)]

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1-C-WS3-04-P

The novel cell fate tracing system for fetal lymphoid cells with a history of Rag2 expression

◯ Miyama Takeda[1)], Keiko Fujisaki[1)], Masako Tsuru[1)], Shogo Okazaki[1)], Shuhei Ogawa[2)], Seiya Mizuno[3)], Satoru Takahashi[3)], Ryo Goitsuka[1)]

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1-C-WS3-05-O/P

Postnatal behavior of fetal lymphoid cells identified with a novel Rag2 lineage tracing system

◯ Keiko Fujisaki[1)], Miyama Takeda[1)], Masako Tsuru[1)], Shogo Okazaki[1)], Shuhei Ogawa[2)], Seiya Mizuno[3)], Satoru Takahashi[3)], Ryo Goitsuka[1)]

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1-C-WS3-06-P

Molecular processes of TCF3-fusion type acute B-lymphoblastic leukemia development revealed by a newly-established mouse model

◯ Aisa Suzuki, Tomokatsu Ikawa

Research Institute for Biomedical Sciences, Tokyo University of Science, Chiba, Japan

1-C-WS3-07-P

Mitochondrial complex I dysfunction impairs the early stage of B-lymphoid differentiation in mice

◯ Ritsuko Nakai[1)], Takafumi Yokota[1)], Takao Sudo[1)], Takayuki Ozawa[1)], Daisuke Okuzaki[2)], Naoki Hosen[1)]

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1-C-WS3-08-P

Analysis of immunosenescence of hematopoietic stem cells in the non-human primates

◯ Yuji Masuta[1, 2)], Takuto Nogimori[1)], Shokichi Takahama[1)], Yasuhiro Yasutomi[3)], Victor Appay[4)], Takuya Yamamoto[1, 2, 5)]

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1-C-WS3-09-P

Single-cell RNA-seq analysis identified a novel subpopulation of basophils with immature phenotypes and unique functionality

◯ Junya Ito[1)], Kensuke Miyake[1)], Jun Nakabayashi[2)], Shigeyuki Shichino[3)], Hajime Karasuyama[1)]

Inflammation, Infection & Immunity Laboratory, Advanced Research Institute, Tokyo Medical and Dental University (TMDU), Tokyo, Japan[1)], College of Liberal Arts and Sciences, Tokyo Medical and Dental University (TMDU), Tokyo, Japan[2)], Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, Tokyo, Japan[3)]

1-C-WS3-10-O/P

RANKL$^+$ cells in the primary ossification center contributes to perinatal bone marrow development

◯ Eriko Sumiya, Shinichiro Sawa

Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

1-C-WS3-11-P

NOD1 ligand administration restores optimal steady-state hematopoiesis in germ-free mice

◯ Chiaki Iwamura[1)], Kiyoshi Hirahara[1)], Toshinori Nakayama[1)], Alan Sher[2)], Jankovic Dragana[2)]

Department of Immunology, Graduate school of Medicine, Chiba Univeristy[1)], Laboratory of Parasitic Diseases, NIAID, NIH[2)]

1-C-WS3-12-P

An antimicrobial enzyme against *Enterococcus faecalis* prevents acute graft-versus-host disease in allogenic hematopoietic stem cell transplantation

◯ Tetsuya Hayashi[1, 2)], Kosuke Fujimoto[2, 3)], Satoshi Uematsu[2, 3)]

Hematology, Osaka City University Graduate School of Medicine, Osaka, Japan[1)], Department of Immunology and Genomics, Osaka City University Graduate School of Medicine , Osaka, Japan[2)], Division of Metagenome Medicine, Human Genome Center, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan[3)]

1-C-WS3-13-O/P

A *do novo* missense mutation of *Bcl11b* gene causes an abnormal thymopoiesis

◯ Kazuki Okuyama[1)], Motoi Yamashita[1, 2)], Kazuaki Matsumoto[1, 2)], Michiko Ohno-Oishi[1, 3)], Satoshi Kojo[1, 4)], Tomohiro Morio[2)], Hideyuki Yoshida[5)], Ichiro Taniuchi[1)]

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1-C-WS3-14-P

Distinct function between Runx1 and Runx3 in regulating immune cell development

◯ Chengcheng Zou, Jiawen Zheng, Ichiro Taniuchi

Lab for Transcriptional Regulation, IMS, RIKEN Yokohama

1-C-WS3-15-P

Integrative single-cell RNA-Seq and ATAC-Seq Analysis of thymic epithelial cells revealed transit amplifying cells expressing AIRE

◯ Takahisa Miyao[1)], Tatsuya Ishikawa[1)], Kenta Horie[1)], Yuki Takakura[1)], Mio Hayama[1)], Nobuko Akiyama[2)], Taishin Akiyama[1)]

Laboratory for Immune Homeostasis, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan[1)], Laboratory for Immunogenetics, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan[2)]

1-C-WS3-16-O/P

The transcription factor Sox4 is required for thymic tuft cell development

◯ Nanami Mino[1, 2)], Ryunosuke Muro[1)], Takeshi Nitta[1)], Hiroshi Takayanagi[1)]

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1-C-WS3-17-O/P

Differential requirement of Rap1 and integrin adaptors for distinct modalities of T cell adhesion under shear flow

◯ Yuji Kamioka, Yoshihiro Ueda, Naoyuki Kondo, Tatsuo Kinashi

Dept. of Molecular Genetics, Institute of Biomedical Science, Kansai Medical University, Osaka, Japan

1-C-WS3-18-P

Kindlin-3 breaks of integrin LFA-1 inhibitory clasp to promote positive feedback activation of LFA-1 by talin1 and Rap1

◯ Naoyuki Kondo, Yoshihiro Ueda, Tatsuo Kinashi

Department of Molecular Genetics, Institute of Biomedical Science, Kansai Medical University

1-C-WS3-19-P

Medullary sinus macrophages at the subcapsular-medullary sinus border/barrier (SMB) of lymph nodes play a pivotal role in lymph fluid filtering

◯ Tomoya Katakai, Madoka Ozawa

Department of Immunology, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan

1-C-WS3-20-P

Adrenergic nerves control the function of follicular dendritic cells in humoral immune responses

◯ Taiichiro Shirai[1, 2, 3], Sarah Leach[1, 2, 3], Kazuhiro Suzuki[1, 2, 3]

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

1-C-WS3-21-P

Follicular dendritic cell-mediated enhancement of the differentiation into IgA$^+$GL7$^+$ cells

◯ Mari Hikosaka-Kuniishi, Toshiyuki Yamane, Hidetoshi Yamazaki

Stem Cell and Developmental Biology, Graduate School of Medicine, Mie University, Japan

1-C-WS3-22-P

Anti-FVIII antibody secreting plasma cells persist in the spleen for extended periods of time in mice with hemophilia A after recombinant FVIII treatment

◯ Akihisa Oda[1], Masahiro Kitabatake[2], Toshihiro Ito[2], Keiji Nogami[1]

Department of Pediatrics, Nara Medical University[1], Department of Immunology, Nara Medical University[2]

1-C-WS3-23-P

Artificially made human-type functional lymphoid tissues (organoids) can induce antigen-specific immune responses upon antigen-stimulation

◯ Yuka Kobayashi, Hiroshi Kawamoto, Takeshi Watanabe

Laboratory of Immunology, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan

1-C-WS3-24-P

Modification by Liver-derived Fibroblast growth factor (FGF) 21 of the b-klotho protein (KLB) expression in the central nerve system

◯ Yuko Yoshida[1, 2], Mana Oikawa[1], Kunihiro Hayakawa[3], Yoshifumi Watanabe[1, 2]

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December 8

WS4 T cell antigen-recognition, activation, and effector differentiation

Discussers: Sayaka Ishihara, Toshio Kanno, Ryoji Kawakami, Tomohiro Kurosaki, Satoshi Matsuda, Takashi Saito, Kensuke Shibata, Kenji Shimizu, Tadashi Yokosuka

1-D-WS4-01-P

Identification of tumor antigen-specific TCRs using immunospot array assay on a chip (T-ISAAC) technology

◯ Eiji Kobayashi, Tatsuhiko Ozawa, Hiroshi Hamana, Atsushi Muraguchi, Hiroyuki Kishi

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1-D-WS4-02-O/P

Construction of a platform to predict HLA-DRB1*04:05-binding peptides trained by query learning

◯ Keiko Udaka, Morito Chabata

Department of Immunology, School of Medicine, Kochi University

1-D-WS4-03-P

Induction of T cell responses by peptide immunization delivered by a novel pyro-drive jet injector, Actranza

◯ Toshihiro Komatsu[1], Michiyuki Kasai[1], Yuko Sakaguchi[2], Naoki Sakaguchi[2], Keiko Udaka[1]

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1-D-WS4-04-O/P

Comprehensive TCR-function analysis in TILs of breast cancer revealed multiple tumor-reactive MR1-restricted TCRs

◯ Hiroyuki Kishi[1], Satoshi Yamaguchi[2], Hiroshi Hamana[1], Kiyomi Shitaoka[3], Takuya Nagata[4], Eiji Kobayashi[1], Tatsuhiko Ozawa[1], Atsushi Muraguchi[1]

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1-D-WS4-05-P

Screening of neoantigen-specific TCRs using TAP fragment and Jurkat cells

◯ Hiroshi Hamana[1)], Yoshihiro Miyahara[2)], Eiji Kobayashi[1)], Tatsuhiko Ozawa[1)], Atsushi Muraguchi[1)], Hiroshi Shiku[2)], Hiroyuki Kishi[1)]

Department of Immunology, Faculty of Medicine, Academic Assembly, University of Toyama, Toyama, Japan[1)], Department of Immuno-Gene Therapy, Graduate School of Medicine, Mie University, Mie, Japan.[2)]

1-D-WS4-06-P

Proportional tumor infiltration of T cells via circulation duplicates the T cell receptor repertoire in a bilateral tumor mouse model

Mikiya Tsunoda[1, 2)], ◯ Hiroyasu Aoki[1, 3)], Haruka Shimizu[1)], Shigyuki Shichino[1)], Kouji Matsushima[1)], Satoshi Ueha[1)]

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1-D-WS4-07-P

STAP-1 is involved in TCR-mediated T cell activation and pathogenesis of multiple sclerosis

◯ Kota Kagohashi[1)], Jun-ichi Kashiwakura[1)], Kenji Oritani[2)], Tadashi Matsuda[1)]

Department of Immunology, Graduate School of Pharmaceutical Sciences, Hokkaido University, Sapporo, Japan[1)], Department of Hematology, International University of Health and Welfare, Tochigi, Japan[2)]

1-D-WS4-08-P

New strategy of STAP-2-based suppression of TCR-mediated T cell activation and autoimmune encephalomyelitis

◯ Yuto Sasaki[1)], Jun-ichi Kashiwakura[1)], Kenji Oritani[2)], Matsuda Tadashi[1)]

Department of immunology, Graduate school of Pharmaceutical Sciences, Hokkaido University, Hokkaido, Japan[1)], Department of Hematology, International University of Health and Welfare, Tochigi, Japan[2)]

1-D-WS4-09-O/P

Uncovering a novel role of PLCβ4 in selectively mediating TCR signaling in $CD8^+$ but not $CD4^+$ T cells

◯ Miwa Sasai[1, 2)], Masahiro Yamamoto[1, 2, 3)]

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1-D-WS4-10-O/P

SCD2-mediated monounsaturated fatty acid metabolism regulates cGAS-STING-dependent type I IFN responses in $CD4^+$ T cells

◯ Toshio Kanno[1)], Takahiro Nakajima[1)], Toshinori Nakayama[2)], Yusuke Endo[1)]

Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, Kisarazu, Chiba, Japan.[1)], Department of Immunology, Graduate School of Medicine, Chiba University, Chuo-ku, Chiba, Japan.[2)]

1-D-WS4-11-P

The T cell CD6 receptor operates a multitask signalosome with opposite functions in T cell activation

◯ Daiki Mori, Claude Gregoire, Bernard Malissen

Centre d'Immunologie de Marseille-Luminy, Aix Marseille University, Marseille, France

1-D-WS4-12-O/P

PD-1 preferentially inhibits the activation of low affinity T cells

◯ Kenji Shimizu, Daisuke Sugiura, Il-mi Okazaki, Takumi Maruhashi, Taku Okazaki

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

1-D-WS4-13-O/P

LAG-3-mediated trogoytosis of MHC class II indirectly regulates $CD4^+$ T cell activation

◯ Ei Wakamatsu, Hiroaki Machiyama, Hiroko Toyota, Masae Furuhata, Hitoshi Nishijima, Arata Takeuchi, Tadashi Yokosuka

Department of Immunology, Tokyo Medical University

1-D-WS4-14-P

Optimized immunosuppression strategy in MHC-matched allogeneic iPS cell-based transplantation

◯ Tomoki Kamatani[1)], Ryo Otsuka[1)], Tomoki Murata[1)], Haruka Wada[1)], Takeshi Takahashi[2)], Ken-ichiro Seino[1)]

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1-D-WS4-15-P

DNAM-1 interferes with the binding of TIGIT to CD155 and suppresses Foxp3 expression via an excess of the AKT/mTORC1 pathway in regulatory T cells

◯ Kazuki Sato[1, 2, 3)], Yumi Yamashita-Kanemaru[1)], Rikito Murata[4)], Yuho Nakamura-Shinya[5)], Akira Shibuya[1, 2, 3)], Kazuko Shibuya[1, 3)]

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1-D-WS4-16-P

The role of DNAM-1 in Concanavalin A-induced acute liver injury

◯ Soichi Matsuo[1, 2], Tsukasa Nabekura[1, 3, 4], Akira Shibuya[1, 3, 4]

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1-D-WS4-17-P

Activation of LFA-1 integrin contributes to T cell trogocytosis

◯ Koyu Ito[1], Masakazu Hattori[2], Kouestu Ogasawara[1]

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1-D-WS4-18-P

Dissection of $\alpha_4\beta_7$ integrin regulation by Rap1 using novel conformation-specific monoclonal anti-β_7 antibodies

◯ Tsuyoshi Sato[1], Sayaka Ishihara[1], Ryoya Marui[1], Junichi Takagi[2], Koko Katagiri[1]

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1-D-WS4-19-P

Rap1 facilitates T cell polarity via spatial regulation of MLC and ARAP1

◯ Yoshihiro Ueda[1], Koichiro Higasa[2], Yuji Kamioka[1], Naoyuki Kondo[1], Tatsuo Kinashi[1]

The Department of Molecular Genetics, Kansai Medical University[1], The Department of Genome Analysis, Kansai Medical University[2]

1-D-WS4-20-P

The molecular mechanism of T cell exhaustion by NR4A transcription factors and its rejuvenation

◯ Tanakorn Srirat, Akihiko Yoshimura

Keio University School of Medicine

1-D-WS4-21-O/P

Regulation of layered T cell tolerance mechanisms by the NR4A family

◯ Ryosuke Hiwa[1], Hailyn V. Nielsen[1], James L. Mueller[1], Ravi Mandla[2], Julie Zikherman[1]

Division of Rheumatology, Rosalind Russell and Ephraim P. Engleman Arthritis Research Center, Department of Medicine, University of California, San Francisco, CA, USA[1], Cardiology Division, Department of Medicine, University of California, San Francisco, CA, USA[2]

1-D-WS4-22-P

Involvement of the JNK/c-Jun signaling pathway in Ca^{2+}-activated K^+ channel $K_{Ca}3.1$ inhibition-induced up-regulation of IL-10 in peripherally-induced regulatory T cells

◯ Susumu Ohya, Miki Matsui, Kyoko Endo

Department of Pharmacology, Graduate School of Medical Sciences, Nagoya City University, Japan

1-D-WS4-23-O/P

Contribution of T cell receptor- and Interleukin-2-signaling to the coordination of Treg-associated enhancer landscape

Gen Kondoh[1], Keiji Hirota[1], Naganari Ohkura[2], Shimon Sakaguchi[2, 3], ◯ Ryoji Kawakami[2, 3], Yohko Kitagawa[2, 3], Kelvin Y. Chen[2], Masaya Arai[2], Daiya Ohara[1], Yamami Nakamura[2], Keiko Yasuda[2, 3], Motonao Osaki[2, 3], Norihisa Mikami[2, 3], Caleb A. Lareau[4], Hitomi Watanabe[1]

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1-D-WS4-24-P

Glutaminolysis-induced mTOR-C/EBPb signaling drives the differentiation of IL-10-producing regulatory T cells

◯ Masaki Tajima[1, 2], Warren Strober[1]

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1-D-WS4-25-P

The Cxxc1 subunit of the Trithorax complex directs epigenetic licensing of $CD4^+$ T cell differentiation

◯ Masahiro Kiuchi[1], Atsushi Onodera[1, 2], Kota Kokubo[1], Eiryo Kawakami[3], Haruhiko Koseki[4], Kiyoshi Hirahara[1, 5], Toshinori Nakayama[1, 6]

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1-D-WS4-26-P

Roles of gravity stimulation during the development of autoimmune diseases, which are mediated by the gateway reflexes

◯ Mona Uchida, Yuki Tanaka, Takeshi Yamasaki, Masaaki Murakami

Division of Psychoimmunology, Institute for Genetic Medicine and Graduate School of Medicine, Hokkaido University

1-D-WS4-27-P

T-lineage specific Arf-deficient mice are susceptible to *Leishmania major* infection

◯ Mami Sumiyoshi[1)], Yui Kotani[1, 2)], Yoichi Maekawa[3, 4)], Satoshi Matsuda[1)]

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1-D-WS4-28-P

Regulation of human peripheral blood T cell activation by steroid hormones related to pregnancy

◯ Tomoka Shimizu, Shino Ohshima, Yoshie Kametani

Department of Molecular Life Science, Tokai University School of Medicine, Isehara, japan.

1-D-WS4-29-P

Involvement in the development of Alzheimer's disease through activation of systemic immune response

Minako Ito, ◯ Ryusei kaneko

Medical Institute of Bioregulation, Kyushu University

1-D-WS4-30-P

Targeted inhibition of EPAS1–driven IL-31 production by a small-molecule compound

◯ Kazufumi Kunimura, Yoshinori Fukui

Division of Immunogenetics, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

1-D-WS4-31-P

Deciphering molecular link between kinases and transcription factors during iNKT cell development

◯ Eri Ishikawa[1, 2)], Sho Yamasaki[1, 2, 3, 4)]

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1-D-WS4-32-O/P

Mucosal-associated invariant T cells have therapeutic potential against autoimmune uveitis

Satoshi Yamana[1)], ◯ Kensuke Shibata[1, 2, 3)], Eiichi Hasegawa[1)], Mitsuru Arima[1)], Shotaro Shimokawa[1)], Nobuyo Yawata[1)], Atsunobu Takeda[1)], Sho Yamasaki[3, 4, 5, 6)], Koh-Hei Sonoda[1)]

Department of Ophthalmology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan[1)], Department of Microbiology and Immunology, Graduate School of Medicine, Yamaguchi University, Yamaguchi, Japan[2)], Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan[3)], Laboratory of Molecular Immunology, Immunology Frontier Research Center, Osaka University, Osaka, Japan[4)], Division of Molecular Design, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan[5)], Division of Molecular Immunology, Medical Mycology Research Center, Chiba University, Chiba, Japan[6)]

1-D-WS4-33-P

Crystal structure of the ternary complex of TCR, MHC class I and lipopeptides

◯ Daisuke Morita[1, 2)], Masahiko Sugita[1, 2)]

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December 8

WS5 T cell immunity in cancer

Discussers: Kazuhiro Kakimi, Xiabing Lyu, Setsuko Mise-Omata, Toshihiro Suzuki, Koji Tamada, Toshihiko Torigoe, Keiko Udaka

1-E-WS5-01-O/P

Simultaneous analysis of TCR repertoire and transcriptome of tumor infiltrating T cells in hepatocellular carcinoma by single-cell sequences identified clusters including tumor reactive CTLs with early effector like phenotype

◯ Toshihiro Suzuki

Department of Pharmacology, Teikyo University School of Medicine, Tokyo, Japan

1-E-WS5-02-P

The relationship between TCR property and PD-1 expression on T cells

◯ My Ha Thi Viet

Department of Immunology, Faculty of Medicine, University of Toyama, Toyama, Japan

1-E-WS5-03-P

Development of "TCR cassette method": Regeneration of CTLs from iPSCs in which tumor-antigen specific TCR genes can be efficiently introduced into the endogenous TCR locus by cassette exchange

Koji Terada[1)], Kenta Kondo[1)], Seiji Nagano[2)], Kyoko Masuda[2)], Hiroshi Kawamoto[2)], ◯ Yasutoshi Agata[1)]

Department of Biochemistry and Molecular Biology, Shiga University of Medical Science, Shiga, Japan[1)], Laboratory of Immunology, Institute for Frontier Life and Medical Sciences, Kyoto University, Kyoto, Japan[2)]

1-E-WS5-04-P

Isolation of TCR genes with tumor-killing activity from tumor-infiltrating lymphocytes in a tumor rejection cynomolgus macaque model

◯ Koji Terada[1)], Kenta Kondo[1)], Hirohito Ishigaki[2)], Ayaka Nagashima[3)], Hiroki Satooka[4)], Seiji Nagano[5)], Kyoko Masuda[5)], Teruhisa Kawamura[3)], Takako Hirata[4)], Kazumasa Ogasawara[2)], Yasushi Itoh[2)], Hiroshi Kawamoto[5)], Yasutoshi Agata[1)]

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1-E-WS5-05-P

P2X receptor agonist promotes antigen-specific CD8$^+$ T cell responses through CD70$^+$ DC-mediated Th17 induction

◯ Shinya Yamamoto[1)], Kazuhiko Matsuo[1)], Osamu Yoshie[2)], Takashi Nakayama[1)]

Division of Chemotherapy, Kindai University Faculty of Pharmacy, Higashi-osaka, Japan[1)], The Health and Kampo Institute, Sendai, Japan[2)]

1-E-WS5-06-O/P

Spermidine promotes fatty acid oxidation in CD8+ T cells and enhances anti-tumor immunity by PD-1 blockade in aged mice

◯ Muna Al Habsi[1)], Kenji Chamoto[1)], Tasuku Honjo[1)], Sidonia Fagarasan[2)]

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1-E-WS5-07-P

Identification of various sites where tissue-resident memory-like CD8 T cells are differentiated in the tumor

◯ Shiki Takamura, Masaaki Miyazawa

Department of Immunology, Kindai University Faculty of medicine

1-E-WS5-08-P

Arginine metabolism in the tumor-bearing state is related to the metastatic colonization of cancer cells

◯ Xiangdong Wang[1)], Huihui Xiang[1, 2)], Yujiro Toyoshima[2)], Shunsuke Shichi[1, 2)], Ko Sugiyama[1, 2)], Shen Weidong[1)], Saori Kimura[1, 2)], Shigenori Homma[2)], Akinobu Taketomi[2)], Hidemitsu Kitamura[1)]

Division of Functional Immunology, Institute for Genetic Medicine, Hokkaido University, Japan[1)], Department of Gastroenterological Surgery I, Hokkaido University Graduate School of Medicine, Japan[2)]

1-E-WS5-09-O/P

The kinase Lck activate CAR-T cells independently upon co-receptor association

◯ Hiroaki Machiyama[1)], Ei Wakamatsu[1)], Masae Furuhata[1)], Hiroko Toyota[1)], Mamonkin Maksim[2)], Brenner K Malcom[2)], Tadashi Yokosuka[1)]

Department of Immunology, Tokyo Medical University, Tokyo, Japan[1)], Center for Cell and Gene Therapy, Baylor College of Medicine, Houston, TX, USA[2)]

1-E-WS5-10-O/P

Targeting poor prognosis leukemia with CD25-targeted chemokine receptor expressing CAR Tcell therapy

◯ Ari Itoh-Nakadai[1, 2)], Mariko Tomizawa[1)], Masashi Matsuda[3)], Haruhiko Koseki[3)], Fumihiko Ishikawa[1)]

Human Disease Models., IMS, Riken, Yokohama, Japan[1)], Hygiene and public Health, Graduated School of Medicine, Nippon Medical School, Tokyo, Japan[2)], Developmental Genetics, IMS,RIKEN, Yokohama, Japan[3)]

1-E-WS5-11-P

CCR8-targeted specific depletion of clonally expanded Treg cells in tumor tissues evokes potent tumor immunity with long-lasting memory

◯ Yujiro Kidani[1, 2, 3)], Yoshiaki Yasumizu[2)], Atsushi Tanaka[1, 2)], Hisashi Wada[4)], Naganari Ohkura[1, 2)], Shimon Sakaguchi[2)]

Department of Basic Research in Tumor Immunology, Graduate School of Medicine, Osaka University, Osaka, Japan[1)], Department of Experimental Immunology, Immunology Frontier Research Center, Osaka University, Osaka, Japan[2)], Pharmaceutical Research Division, Shionogi & Co., Ltd., Osaka, Japan[3)], Department of Clinical Research in Tumor Immunology, Graduate School of Medicine, Osaka University, Osaka, Japan[4)]

1-E-WS5-12-O/P

Augmentation of IL6 signaling by the deletion of SOCS3 in T cells enhances tumor immunity through the modification of mitochondria states

◯ Setsuko Mise-Omata, Akihiko Yoshimura

Keio University School of medicine, Department of microbiology and immunology

1-E-WS5-13-P

ATP-P2X7 receptor and HMGB1-TLR4 signaling pathways are involved in DT-induced enhancement of Ti-DC migration

◯ Taiki Moriya[1, 2)], Yutaka Kusumoto[1)], Michio Tomura[1)]

Division of Pharmacy, Department of Immunology, Osaka Ohtani University, Osaka, Japan[1)], Laboratory of Veterinary Physiology, Department of Veterinary Medicine, School of Veterinary Medicine, Rakuno Gakuen University, Hokkaido, Japan[2)]

1-E-WS5-14-P

Macrophage-cancer cell interaction in a three-dimension liver cancer model

◯ Pornlapat Keawvilai

Program in Biotechnology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand.

1-E-WS5-15-P

Cell fusion with melanoma and macrophage contribute to the immune evasion

◯ Tomoyuki Minowa[1, 2)], Yoshihiko Hirohashi[1)], Kenji Murata[1)], Takayuki Kanaseki[1)], Hisashi Uhara[2)], Toshihiko Torigoe[1)]

Department of Pathology, Sapporo Medical University School of Medicine, Sapporo, Hokkaido[1)], Department of Dermatology, Sapporo Medical University School of Medicine, Sapporo, Hokkaido[2)]

1-E-WS5-16-O/P

Selective expansion of tumor specific CD8 T cells with engineered antigen presenting exosome

◯ Xiabing Lyu[1)], Tomoyoshi Yamano[1, 2)], Shota Imai[1)], Yoshinori Hasebe[1)], Zixin Tang[1)], Rikinari Hanayama[1, 2)]

Graduate school of Medical Science, Kanazawa University, Kanazawa, Japan [1)], Nano Life Science Institute, Kanazawa University, Kanazawa, Japan[2)]

1-E-WS5-17-O/P

Efficacy of mRNA cancer vaccines in murine melanoma model

◯ Chutamath Sittplangkoon[1, 2)], Mohamad-Gabriel Alameh[3)], Drew Weissman[3)], Tanapat Palaga[2, 4)]

Graduate Program in Biotechnology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand[1)], Center of Excellence in Immunology and Immune-Mediated Diseases, Chulalongkorn University, Bangkok, Thailand[2)], Division of Infectious Diseases, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, USA[3)], Department of Microbiology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand[4)]

1-E-WS5-18-P

Intradermal Inoculation of Plasmid DNA by A Novel Pyro-Drive Jet Injector Induces Potent Antitumor Immunity

◯ Shinya Inoue[1)], Izuru Mizoguchi[1)], Hideaki Hasegawa[1)], Yasuhiro Katahira[1)], Watanabe Aruma[1)], Naoki Sakaguti[2)], Kazuhiro Terai[2)], Kunihiko Yamashita[2)], Takayuki Yoshimoto[1)]

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1-E-WS5-19-P

Withdrawn

1-E-WS5-20-P

Spred2 regulates cancer stemness in HCC cells, targeting on miR-506-3p and its downstream KLF4

◯ Tong Gao, Teizo Yoshimura, Akihoro Matsukawa

Institute of Immuno-Pathology, Okayama University School of Medicine, Okayama, Japan

1-E-WS5-21-P

HTLV-1 hijacks T-cell activation mechanisms for leukemic transformation as revealed through single-cell RNA-seq

◯ Benjy Jek Yang Tan[1, 2)], Kenji Sugata[1)], Omnia Reda[1, 2)], Misaki Matsuo[1, 2)], Paola Miyazato[2)], Vincent Hahaut[3)], Hitoshi Suzushima[4)], Hiroo Katsuya[5)], Masahito Tokunaga[6)], Yoshikazu Uchiyama[7)], Hideaki Nakamura[8)], Eisaburo Sueoka[9)], Atae Utsunomiya[6)], Masahiro Ono[10)], Yorifumi Satou[1, 2)]

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1-E-WS5-22-P

Distinct subpopulations of the murine 4T1 breast cancer cells cooperate with cancer metastasis through Wnt/β-catenin signaling pathway by exosomal Wnt7a

◯ Chunning Li, Teizo Yoshimura, Akihiro Matsukawa

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December 9

WS6 Immunity against SARS-CoV-2 and influenza virus

Discussers: Hisashi Arase, Shintaro Hojyo, Satoshi Ishido, Yasushi Itoh, Sujin Kang, Eriko Kudo, Kosuke Miyauchi, Masaaki Murakami, Thanh Cong Nguyen

2-A-WS6-01-O/P

Influenza virus infection induces memory phenotype in group 2 innate lymphoid cell

◯ Eriko Kudo[1)], Akihiro Tokuda[1)], Tsuyoshi Kiniwa[2)], Kazuyo Moro[1, 2)]

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2-A-WS6-02-O/P

SARS-CoV-2 S1 protein binds to b1 integrins to trigger integrin-mediated activation pathway

◯ Eun Jeong Park[1)], Khwanchanok Mokmued[1)], Eri Matsuo[1)], Siqingaowa Caidengbate[1)], Atsushi Ito[1, 2)], Eiji Kawamoto[1, 3)], Arong Gaowa[1)], Motomu Shimaoka[1)]

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2-A-WS6-03-O/P

An infectivity-enhancing site on the SARS-CoV-2 spike protein targeted by antibodies

◯ Yafei Liu[1, 2)], Wataru Nakai[1, 2)], Noriko Arase[3)], Masako Kohyama[1, 2)], Hisashi Arase[1, 2)]

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2-A-WS6-04-O/P

Role of germinal center response in the antibody responses against SARS-CoV-2 spike protein

◯ Kosuke Miyauchi[1)], Rina Hashimoto[2)], Kazuo Takayama[2)], Masato Kubo[1, 3)]

Laboratory for Cytokine Regulation, Center for Integrative Medical Sciences, RIKEN, Japan[1)], Center for iPS Cell Research and Application, Kyoto University, Japan[2)], Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Japan[3)]

2-A-WS6-05-O/P

Transient depletion of Treg cells induces adaptive immunity to SARS-CoV-2 antigens

◯ Ryuta Uraki[1, 2, 3)], Masaki Imai[1)], Hiroaki Shime[1)], Yoshihiro Kawaoka[2, 3, 4)], Sayuri Yamazaki[1)]

Nagoya City University Graduate School of Medical Sciences[1)], Institute of Medical Science, University of Tokyo[2)], National Center for Global Health and Medicine[3)], School of Veterinary Medicine, University of Wisconsin-Madison, Madison[4)]

2-A-WS6-06-O/P

Cross-reactivity of pre-existing CD8+ T cells against SARS-CoV-2

◯ Kanako Shimizu[1)], Tomonori Iyoda[1)], Shin-ichiro Fujii[2)]

Laboratory for Immunotherapy, RIKEN Center for Integrative Medical Sciences (IMS)[1)], RIKEN Program for Drug Discovery and Medical Technology Platforms (DMP)[2)]

2-A-WS6-07-O/P

In-depth analysis of SARS-CoV-2-specific CD8$^+$ T cells using T cell library assay on COVID-19 convalescents

◯ Hideki Ogura[1)], Jin Gohda[2)], Mizuki Yamamoto[2)], Aoi Son[1)], Motohiro Murakami[3)], Jun-ichiro Inoue[4)], Kunihiro Shirai[3)], Jun-ichi Hirata[3)], Satoshi Ishido[1)]

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2-A-WS6-08-O/P

SARS-CoV-2 ORF8 is a viral cytokine involved in lung inflammation

◯ Masako Kohyama[1, 2)], Toru Okamoto[3)], Tatsuya Suzuki[3)], Hisashi Arase[1, 2)]

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2-A-WS6-09-O/P

Establishment of a severe COVID-19 model in mice with stress

◯ Shintaro Hojyo[1)], Rie Hasebe[2)], Kumiko Tanaka[1)], Yuki Tanaka[1)], Mona Uchida[1)], Masaaki Murakami[1)]

Molecular Psychoimmunology, Institute for Genetic Medicine, Hokkaido University[1)], Center for Infection-associated Cancer, Institute for Genetic Medicine, Hokkaido University[2)]

2-A-WS6-10-O/P

Distribution of CD38-positive immune cells, endothelial cells and renal tubular cells in cynomolgus macaques infected with SARS-CoV-2

◯ Nguyen Thanh Cong, Yasushi Itoh, Misako Nakayama, Hirohito Ishigaki

Division of Pathogenesis and Disease Regulation, Department of Pathology, Shiga University of Medical Science

2-A-WS6-11-P

Mutations of SARS-CoV-2 spike protein: Implications on immune evasion and vaccine-induced immunity

◯ Hylemariam Mengist

Department of Obstetrics and Gynecology, The First Affiliated Hospital of USTC, Division of Life Sciences and Medicine, University of Science and Technology of China, Hefei, Anhui, China

2-A-WS6-12-P

Production and characterization of anti-SARS-CoV-2 antibody by immunizing Spike-derived peptide with high affinity to HLA-DR4

◯ Tingyu Gao, Atsushi Irie, Takahisa Kouwaki, Hiroyuki Oshiumi

Department of Immunology, Kumamoto University Graduate School of Medical Sciences

2-A-WS6-13-P

Human innate immunity behind antibody responses following BNT162b2 mRNA vaccination

Keisuke Tonouchi, Yoshimasa Takahashi, ◯ Tomohiro Takano, Takayuki Matsumura, Yu Adachi, Saya Moriyama, Lin Sun

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

2-A-WS6-14-P

Humoral and cellular immune responses against SARS-CoV-2 induced by COVID-19 mRNA vaccine

◯ Jie Bai[1)], Asako Chiba[1)], Goh Murayama[2)], Taiga Kuga[1, 2)], Naoto Tamura[2)], Sachiko Miyake[1)]

Department of Immunology, Juntendo University School of Medicine[1)], Department of Internal Medicine and Rheumatology, Juntendo University School of Medicine[2)]

2-A-WS6-15-P

Involvement of Dectin-2 in the host recognition and specific antibody response triggered by influenza virus hemagglutinin

◯ Hideki Yamamoto[1)], Chikako Tomiyama[2)], Sho Yamasaki[3)], Yoichiro Iwakura[4)], Kazuyoshi Kawakami[5, 6)]

Graduate School of Health Sciences, Niigata University, Niigata, Japan[1)], Laboratory of Immunology, Graduate School of Health Sciences, Niigata University, Niigata, Japan[2)], Department of Molecular Immunology, Research Institute for Microbe Diseases, Osaka University, Suita, Japan[3)], Center for Animal Disease Models, Research Institute for Biomedical Sciences, Tokyo University of Science, Noda, Japan[4)], Department of Medical Microbiology, Mycology and Immunology, Tohoku University Graduate School of Medicine, Sendai, Japan[5)], Department of Intelligent Network for Infectious Diseases, Tohoku University Graduate School of Medicine, Sendai, Japan[6)]

2-A-WS6-16-P

Development of IgA monoclonal antibodies from nasal mucosa of mice by intranasal immunization with SARS-CoV-2 Spike Protein for the development of intranasal vaccine

◯ Nobuyuki Kurosawa

Graduate School of Innovative Life Science, University of Toyama

2-A-WS6-17-P

Arterial and venous thrombosis complicated in COVID-19; a retrospective single center analysis in Japan

◯ Seiya Oba, Tadashi Hosoya, Shinsuke Yasuda

Department of Rheumatology, Tokyo Medical and Dental University, Tokyo, Japan

2-A-WS6-18-P

Persimmon-derived tannin has antiviral effects in a Syrian hamster model of SARS-CoV-2 infection.

◯ Ryutaro Furukawa, Noriko Ouji Sageshima, Masahiro Kitabatake, Toshihiro Ito

Department of Immunology, Nara Medical University

2-A-WS6-19-P

Establishment of a COVID-19 cynomolgus macaque model reflecting human COVID-19 pathological conditions

◯ Emiko Urano[1)], Tomotaka Okamura[1)], Haruhiko Kamada[2)], Yoshihiro Kawaoka[3, 4, 5)], Yasuhiro Yasutomi[1, 6)]

Tsukuba Primate Research Center, National Institutes of Biomedical Innovation, Health and Nutrition, Ibaraki, Japan [1)], Laboratory of Biopharmaceutical Research, National Institutes of Biomedical Innovation, Health and Nutrition, Osaka, Japan[2)], Division of Virology, Department of Microbiology and Immunology, Institute of Medical Science, The University of Tokyo, Japan[3)], Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin-Madison, Madison, USA[4)], Department of Special Pathogens, International Research Center for Infectious Diseases, Institute of Medical Science, The University of Tokyo, Japan[5)], Division of Immunoregulation, Department of Molecular and Experimental Medicine, Mie University Graduate School of Medicine, Mie, Japan[6)]

2-A-WS6-20-P

High susceptible model of SARS-CoV2 in CAG promoter-driven hACE2 transgenic mice

◯ Daichi Utsumi[1)], Masamitsu Asaka[1)], Haruhiko Kamada[2)], Yoshihiro Kawaoka[3)], Yasuhiro Yasutomi[1)]

Laboratory of Immunoregulation and Vaccine Research, Tsukuba Primate Research Center, National Institutes of Biomedical Innovation, Health and Nutrition, Tsukuba, Ibaraki, Japan[1)], Laboratory of Biopharmaceutical Research, National Institutes of Biomedical Innovation, Health and Nutrition, Ibaraki, Osaka, Japan[2)], Institute of Medical Science, University of Tokyo, Tokyo, Japan[3)]

December 9

WS7 Autoimmune diseases-1

Discussers: Rie Hasebe, Keiji Hirota, Noriko Komtasu, Hiroki Satooka, Ruka Setoguchi, Yoshihiko Tomofuji, Takashi Yamamura, Sayuri Yamazaki, Akihiko Yoshimura

2-B-WS7-01-O/P

Inflammation spreads to other limbs through an ATP-mediated sensory-interneuron network

◯ Rie Hasebe, Yuki Tanaka, Shintaro Hojyo, Daisukie Kamimura, Masaaki Murakami

Institute for Genetic Medicine, Hokkaido University

2-B-WS7-02-O/P

Redox-mediated SOCS3 expression in regulatory T cells is involved in the development of autoimmunity

◯ Hiroki Satooka, Yuzuki Nakamura, Kagefumi Todo, Takako Hirata

Department of Fundamental Biosciences, Shiga University of Medical Science, Otsu, Shiga, Japan

2-B-WS7-03-O/P

A novel methotrexate target TAp63 suppresses Foxp3 expression and exacerbates autoimmune arthritis

◯ Kensuke Suga, Akira Suto, Takahiro Kageyama, Shigeru Tanaka, Taro Iwamoto, Kei Ikeda, Kotaro Suzuki, Hiroshi Nakajima

Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University

2-B-WS7-04-O/P

A distal enhancer regulates RANKL expression in synovial fibroblasts in arthritis

◯ Minglu Yan[1)], Noriko Komatsu[1)], Ryunosuke Muro[1)], Takeshi Nitta[1)], Kazuo Okamoto[2)], Masayuki Tsukasaki[1)], Hiroshi Takayanagi[1)]

Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[1)], Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan.[2)]

2-B-WS7-05-O/P

Plasma cells promote osteoclastogenesis and periarticular bone loss in autoimmune arthritis

◯ Noriko Komatsu[1)], Yan Minglu[1)], Masayuki Tsukasaki[1)], Asuka Terashima[2)], Hiroshi Takayanagi[1)]

Department of Immunology Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[1)], Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo, Tokyo, Japan[2)]

2-B-WS7-06-O/P

Single-cell repertoire analysis of BCR and functional analysis of anti-GM-CSF antibodies in autoimmune pulmonary alveolar proteinosis

◯ Shinji Futami[1, 2)], Takeshi Inoue[2)], Atsushi Kumanogoh[1)], Tomohiro Kurosaki[2)]

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2-B-WS7-07-O/P

A mechanism for anti-mesangium IgA production in IgA nephropathy model mice

◯ Mizuki Higashiyama[1)], Kei Haniuda[2)], Yoshihito Nihei[1, 3)], Riku Hisato[1)], Daisuke Kitamura[1)]

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2-B-WS7-08-O/P

A metagenome-wide association study revealed disease-specific landscape of the gut microbiome of systemic lupus erythematosus in Japanese

◯ Yoshihiko Tomofuji[1)], Yuichi Maeda[2, 3, 4)], Yagita Mayu[2, 3)], Kiyoshi Takeda[2, 4, 5)], Atsushi Kumanogoh[2, 4, 5)], Yukinori Okada[1, 4, 6)]

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2-B-WS7-09-P

Immunomics analysis of rheumatoid arthritis identified pre-dendritic cells as a key cell subset of treatment resistance

◯ Saeko Yamada[1)], Yasuo Nagafuchi[1, 2)], Mineto Ota[1, 2)], Hiroaki Hatano[1)], Hirofumi Shoda[1)], Kanae Kubo[3)], Kenichi Shimane[4)], Keigo Setoguchi[5)], Takanori Azuma[6)], Kazuhiko Yamamoto[7)], Tomohisa Okamura[1, 2)], Keishi Fujio[1)]

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2-B-WS7-10-P

The relevance of mTOR activation in CD8+ cells to disease activity and therapeutic response to TNF inhibitor in patients with rheumatoid arthritis

◯ Shigeru Iwata[1)], Mingzeng Zhang[1, 2)], Koshiro Sonomoto[1)], Masanobu Ueno[1)], Yuya Fujita[1)], Naoaki Ohkubo[1)], Maiko Sumikawa[1)], Yasuyuki Todoroki[1)], Hiroko Miyata[1)], Atsushi Nagayasu[1)], Ryuichiro Kanda[1)], Gulzhan Trimova[1, 3)], Shingo Nakayamada[1)], Yoshiya Tanaka[1)]

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2-B-WS7-11-P

Histone Lysine Methyltransferase MLL1 Regulates the Expression of Cytokines and Chemokines in Rheumatoid Arthritis Synovial Fibroblasts

◯ Keita Okamoto[1)], Yasuto Araki[1)], Yuho Kadono[2)]

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2-B-WS7-12-P

Gp49B-fibronectin interaction negatively regulates osteoclastogenesis through inhibiting RANKL-induced MAPK pathway

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2-B-WS7-13-P

Remarkable osteogenic and chondrogenic potentials in CD34^{+} THY1^{+} synovial fibroblast subset

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2-B-WS7-14-P

Single-cell RNA-sequencing of the synovium in gp130F759, a murine rheumatoid arthritis model, at the transitional phase from innate to acquired immunity

◯ Katsuhiko Ishihara, Ayano Yahagi, Masanori Iseki, Tomoyuki Mukai

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2-B-WS7-15-P

Citrullinated fibrinogen is a target of auto-antibodies in interstitial lung disease in mice with collagen-induced arthritis

◯ Tomomi Sato[1, 2)], Hiroki Satooka[1)], Satoko Ichioka[1, 2)], Takako Hirata[1)]

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2-B-WS7-16-P

Imiquimod induced lupus nephritis in NZBWF1 mice is developed through a unique mechanism different from spontaneous onset

◯ Kunihiro Hayakawa[1)], Maki Fujishiro[1)], Yuko Yoshida[1, 2)], Yuko Kataoka[1)], Shota Sakuma[1)], Takuya Nishi[1)], Keigo Ikeda[3)], Shinji Morimoto[3)], Iwao Sekigawa[3)]

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2-B-WS7-17-P

An early serum marker for Sjögren's syndrome in SATB1 deficient mice

◯ Yuriko Tanaka[1)], Akiko Inoue[2)], Taku Kuwabara[1)], Taku Naito[1)], Marii Ise[1)], Motonari Kondo[1)]

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2-B-WS7-18-P

Role of *Escherichia coli* flagellin protein in the pathogenesis of type 1 autoimmune pancreatitis

◯ Satoko Omachi[1)], Toshifumi Osaka[1, 2)], Hidehiro Ueshiba[2)], Satoshi Tsuneda[1)], Naoko Yanagisawa[2)]

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2-B-WS7-19-P

Lipid-mediated IL-6 amplifier regulation in vivo and in vitro

◯ Toshiki Sugawara[1)], Yuki Tanaka[1)], Shintaro Hojo[1)], Masabumi Minami[2)], Masaaki Murakami[1)]

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2-B-WS7-20-P

Role of Rap1 in preventing colitogenic Th17 cell expansion and in Treg cell differentiation.

◯ Sayaka Ishihara[1)], Tsuyoshi Sato[1)], Haruka Miyazaki[1)], Noriyuki Fujikado[2)], Takayuki Yoshimoto[3)], Shinji Fukuda[4)], Koko Katagiri[1)]

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2-B-WS7-21-P

Suppression of experimental autoimmune uveitis in Type 1 diabetic Akita mouse

◯ Yoshiaki Nishio[1)], Kozo Harimoto[1)], Hideaki Someya[1)], Masataka Ito[2)], Masaru Takeuchi[1)]

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2-B-WS7-22-P

Aire controls heterogeneity of medullary thymic epithelial cells for the expression of self-antigens

◯ Minoru Matsumoto[1, 2)], Hitoshi Nishijima[2)], Junko Morimoto[2)], Nobuko Akiyama[3)], Taishin Akiyama[3)], Koichi Tsuneyama[4)], Hideyuki Yoshida[3)], Mitsuru Matsumoto[2)]

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2-B-WS7-23-P

The investigation of the pathogenesis of TNF Receptor-Associated Periodic Syndrome (TRAPS) using murine TRAPS models

◯ Takahiko Akagi[1)], Tomoyuki Mukai[1, 2)], Sumie Asano[1)], Masanori Iseki[2)], Ayano Yahagi[2)], Hiroyasu Hirano[1)], Kazuhisa Nakano[1)], Katsuhiko Ishihara[2)], Yoshitaka Morita[1)]

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2-B-WS7-24-P

Computer model of foam cell formation in atherosclerosis

◯ Satoshi Yamada[1)], Akihiko Yoshimura[2)], Masaaki Murakami[3, 4)]

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December 9

WS8 B cell-Regulation of B cell immune response

Discussers: Wataru Ise, Daisuke Kitamura, Takeshi Kusuda, Haruki Okuda, Reiko Shinkura, Ryo Shinnakasu, Kagefumi Todo, Tomoharu Yasuda

2-C-WS8-01-P

The role of complexin 2 in natural IgM secretion of antibody-secreting cells

◯ Emi Tsuru

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2-C-WS8-02-P

The functions of Castor1 in humoral immune responses

◯ Takeshi Kusuda

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

2-C-WS8-03-P

The role of MELK in B cell proliferation and differentiation

◯ Mitsuhiro Fujiwara[1)], Mitsuo Maruyama[2, 3)], Akihiko Nishikimi[1)]

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2-C-WS8-04-P

Protein phosphatase is involved in the maintenance of homo typical aggregation by CD40 stimulation in Ramos cells

◯ Kano Tanabe, Yukinori Kozuma

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2-C-WS8-05-O/P

AFF3 regulates class switch recombination by enhancing mutagenesis of switch region

◯ Shin-ichi Tsukumo[1)], Yoichi Maekawa[2)], Keishi Fujio[3)], Koji Yasutomo[1)]

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2-C-WS8-06-P

Comparison of importance of IRF4-PU.1 and IRF4-Jun-Batf on *Aicda* gene expression

◯ Katsuya Sato, Hitoshi Nagaoka

Department of Molecular Pathobiochemistry, Gifu University School of Medicine, Gifu, Japan

2-C-WS8-07-P

Tet DNA demethylase is required for plasma cell differentiation by controlling expression levels of IRF4

◯ Kentaro Fujii[1, 2)], Shinta Tnaka[1, 3)], Takanori Hasegawa[4)], Msashi Narazaki[2, 5, 6)], Atsushi Kumanogoh[2, 5)], Haruhiko Koseki[4, 7)], Tmohiro Kurosaki[1, 8)], Wataru Ise[1)]

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2-C-WS8-08-O/P

STAT3 couples with 14-3-3s to regulate BCR signaling, B-cell differentiation, and IgE production

◯ Chaohong Liu

Department of Pathogen Biology, School of Basic Medicine, Huazhong University of Science and Technology, Wuhan, China

2-C-WS8-09-P

Production of secreted form of IgD during immune responses

◯ Kagefumi Todo, Hiroki Satooka, Takako Hirata

Department of Fundamental Biosciences, Shiga University of Medical Science, Otsu, Japan

2-C-WS8-10-O/P

Dietary iodine suppresses allergic rhinitis by suppressing B cell response

◯ Yutaka Nakamura, Koji Hase

Faculty of Pharmacy, Keio University

2-C-WS8-11-P

Essential role of ER membrane complex subunit 1 (EMC1) in Ca^{2+} homeostasis and B cell development

◯ Kazuhiko Kawata, Yoshihiro Baba
Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

2-C-WS8-12-P

Induction of essential trace element transporter influences B cell immune response

◯ Akihiko Muto
Department of Biochemistry, Tohoku University Graduate School of Medicine, Miyagi, Japan

2-C-WS8-13-P

The molecular mechanism and physiological role of the secretion of autophagosome-like vesicles in B cells

◯ Yudiao Kuan, Chaoyuan Tsai, Hitoshi Kikutani
Immunology Frontier Research Center, Osaka University

2-C-WS8-14-O/P

Integrin CD11b, a new marker of pre-germinal center IgA^+ B cells in murine Peyer's patches

◯ Gao Peng[1, 2)], Takahiro Adachi[3)], Naoki Morita[2)], Daisuke Kitamura[4)], Reiko Shinkura[1, 2)]
Graduate School of Frontier Science, University of Tokyo; Kashiwa-shi, Chiba, Japan[1)], Institute for Quantitative Biosciences, University of Tokyo; Bunkyo-ku, Tokyo, Japan. [2)], Department of Precision Health, Medical Research Institute, Tokyo Medical and Dental University, Chiyoda-ku, Tokyo, Japan.[3)], Division of Cancer Biology, Research Institute for Biomedical Sciences (RIBS), Tokyo University of Science, Noda, Chiba, Japan[4)]

2-C-WS8-15-P

Augmentation of auto-antibody production in Parm1-deficient NZB mice

◯ Sayaka Fukushima[1)], Mizuki Ishikawa[1)], Kagefumi Todo[2)], Haruka Honda[1)], Masaki Hikida[1)]
Department of Bioscience, Akita University, Akita, Japan[1)], Department of Fundamental Biosciences, Shiga University of Medical Science, Shiga, Japan[2)]

2-C-WS8-16-O/P

A critical role of Protein kinase Cδ in the IgG response against T cell-independent type 2 antigens and commensal bacteria

◯ Saori Fukao, Kei Haniuda, Daisuke Kitamura
Research Institute for Biomedical Sciences, Tokyo University of Science

2-C-WS8-17-O/P

Persistence of antigens in endosome/lysosome is essential for B cell response to TI-2 polysaccharide antigens

◯ Kana Matsumura, Takeshi Tsubata
Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

2-C-WS8-18-O/P

Single cell profiling of Type 2 innate immune response in the lung of aging mice: An important role in B1 cells activation

◯ Tommy Terooatea[1)], Yasutaka Motomura[2)], Natsuko Otaki[3)], Jen Chang[1)], Haruka Yabukami[1)], Natsuki Takeno[4)], Thomas Kelly[1)], Kazuo Moro[2, 4)], Aki Minoda[1)]
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2-C-WS8-19-P

The role of ILC2s for specific antibody production in influenza infection

◯ Akihiro Tokuda[1)], Eriko Kudo[1)], Kazuyo Moro[1, 2)]
Graduate school of medicine/Faculty of medicine, Osaka university[1)], RIKEN center for integrative medical science[2)]

2-C-WS8-20-P

IgA-deficiency breaks immunological and neurological homeostasis

◯ Takahiro Adachi
Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

2-C-WS8-21-P

Blockade of checkpoint ILT3/LILRB4/gp49B binding to fibronectin ameliorates autoimmune disease in BXSB/*Yaa* mice

◯ Mei-Tzu Su[1)], Masanori Inui[1)], Shota Endo[1)], Kouyuki Hirayasu[2, 3, 4)], Hisashi Arase[3, 4)], Toshiyuki Takai[1)]
Department of Experimental Immunology, Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan.[1)], Advanced Preventive Medical Sciences Research Center, Kanazawa University, Kanazawa, Japan.[2)], Laboratory of Immunochemistry, WPI Immunology Frontier Research Center, Osaka University, Osaka, Japan.[3)], Department of Immunochemistry, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan.[4)]

2-C-WS8-22-P

Regulation of epidermal antigen-specific antibody production by autoreactive T cells

◯ Haruki Okuda

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2-C-WS8-23-P

STAP-2 negatively regulates B cell receptor-mediated B cell activation and allergic rhinitis

◯ Shoya Kawahara[1)], Jun-ichi Kashiwakura[1)], Kenji Oritani[2)], Tadashi Matuda[1)]

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2-C-WS8-24-P

A nasal double DNA adjuvant system induces atheroprotecitive IgM antibodies via dendritic cell-B-1a B cell interactions

◯ Hideki Yoshimatsu[1, 2)], Kosuke Kataoka[1, 3, 4)], Kohtaro Fujihashi[5, 6)], Tatsuro Miyake[1, 3)], Yoshiaki Ono[1, 2)]

Graduate School of Dentistry, Osaka Dental University, Hirakata, Japan[1)], Department of Special Care Dentistry, Osaka Dental University Hospital, Osaka, Japan[2)], Department of Preventive and Community Dentistry, Osaka Dental University, Hirakata, Japan [3)], Department of Oral Health Science and Social Welfare, Graduate School of Biomedical Sciences, Tokushima University, Tokushima, Japan [4)], Division of Clinical Vaccinology, International Research and Development Center for Mucosal Vaccines, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan[5)], Department of Pediatric Dentistry, School of Dentistry, The University of Alabama at Birmingham, Birmingham, AL, USA[6)]

2-C-WS8-25-P

Agonistic anti-radioprotective 105 shows adjuvant effect for DNA immunization against influenza

◯ Tatsuya Yamazaki[1)], Mrityunjoy Biswas[1)], Masanori Inui[1)], Susumu Tomono[1)], Isao Ichimonji[1)], Akira Ainai[2)], Sachiko Akashi-Takamura[1)]

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December 9

WS9 Allergy

Discussers: Atsuhito Nakao, Misato Kida, Haruka Miki, Hiroshi Nakajima, Chiharu Nishiyama, Satoko Tahara-Hanaoka, Kyosuke Yakabe

2-D-WS9-01-O/P

The role of PGD_2/CRTH2 signaling in host defense against bee venom

◯ Misato Kida, Takahisa Murata

Department of Animal Radiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan

2-D-WS9-02-O/P

Staphylococcus aureus δ-toxin in skin promotes the development of food allergy following epicutaneous sensitization

◯ Anna Kamei[1, 2)], Hiromichi Yamada[1, 3)], Kumi Izawa[1)], Tomoaki Ando[1)], Ayako Kaitani[1)], Akie Maehara[1)], Hexing Wang[1, 2)], Koji Tokushige[1, 2)], Shino Uchida[1, 4)], Nobuhiro Nakano[1)], Ko Okumura[1)], Jiro Kitaura[1)]

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2-D-WS9-03-O/P

Role of human basophil in oral allergen-induced anaphylaxis in humanized mice

◯ Yu-Hsien Lin[1, 2)], Satoko Tahara-Hanaoka[1, 2, 3)], Akira Shibuya[1, 2, 3)]

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2-D-WS9-04-O/P

Chronic psychological stress exacerbates IgE-dependent chronic allergic inflammation via sympathetic nerve

◯ Hitoshi Urakami[1)], Yuki Fujita[1)], Ayaka Komura[1)], Kei Nagao[1)], Ruriko Okutani[1)], Kensuke Miyake[2)], Hajime Karasuyama[2)], Soichiro Yoshikawa[1)]

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2-D-WS9-05-O/P

STAT3-dependent IL-31 receptor signaling in sensory neurons underlies chronic itch induction while regulates inflammation

◯ Sotaro Ochiai[1, 2], Sonoko Takahashi[1, 2], Jianshi Jin[3], Noriko Takahashi[1], Harumichi Ishigame[1], Masato Kubo[4], Manabu Nakayama[5], Katsuyuki Shiroguchi[3], Takaharu Okada[1, 2, 6]

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2-D-WS9-06-O/P

Omega-3 fatty acid metabolite, 12-hydroxyeicosapentaenoic acid, inhibits allergic contact dermatitis through retinoid X receptor alpha in keratinocytes

◯ Azusa Saika[1], Takahiro Nagatake[1], Koji Hosomi[1], Ayu Matsunaga[1], Tetsuya Honda[2, 3], Makoto Arita[4, 5, 6], Kenji Kabashima[2], Jun Kunisawa[1, 7, 8, 9, 10]

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2-D-WS9-07-O/P

α-glucosidase inhibitor acarbose suppresses mast cell activation and systemic anaphylaxis through the gut microbiota

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2-D-WS9-08-O/P

LIGHT-LTβR Signaling is Essential for Airway Smooth Muscle Remodeling and Asthmatic Airway Hyperresponsiveness

◯ Haruka Miki[1], William B. Kiosses[1], Mario C. Manresa[1, 2], Michael Croft[1, 2]

La Jolla Institute for Immunology[1], UC San Diego[2]

2-D-WS9-09-P

LPS exposure suppresses ILC2-induced airway inflammation

◯ Naoto Fujioka[1, 2], Tetsuro Kobayashi[2], Kazuyo Moro[1, 2]

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2-D-WS9-10-P

Regulatory T cells regulate Th2 differentiation in two steps to suppress allergic inflammation

◯ Naofumi Aso, Ryuichi Murakami, Akira Nakajima, Shohei Hori

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2-D-WS9-11-P

TLR7 agonist stimulates alternatively activated interstitial macrophages to suppress type 2 airway inflammation via IL-27

◯ Shinichi Okuzumi[1], Jun Miyata[2], Hiroki Kabata[1], Hideaki Morita[3], Koichi Fukunaga[1]

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2-D-WS9-12-P

Role of airway epithelial STAT3 in house dust mite-induced allergic airway inflammation

◯ Nozomi Nishimura[1], Masaya Yokota[1], Takashi Ito[1], Aiko Saku[1], Koichi Hirose[2]

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2-D-WS9-13-P

Perturbation of macrophage functions results in severe bronchial asthma with altered phenotypes

◯ Ayae Tanaka[1)], Nobuhide Tsuruoka[2)], Toshibumi Taniguchi[3)], Masahiko Hatano[4)], Hirokuni Hirata[5)], Kazuhiro Kurasawa[1)], Masafumi Arima[1)]

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2-D-WS9-14-P

An enhancing role of innate IL-17A on IL-33-independent skin eosinophilia and IgE response in a subcutaneous papain sensitization model

◯ Seiji Kamijo[1)], Susumu Nakae[2)], Ko Okumura[1)], Toshiro Takai[1)]

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2-D-WS9-15-P

Effects of Anti-Allergy Drugs on Th1 Cell and Th2 Cell Development Mediated by Langerhans Cells

◯ Katsuhiko Matsui

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2-D-WS9-16-P

Differential susceptibility between skin with and without atopic dermatitis in the sensitization phase of allergic contact dermatitis in mice

◯ Hiroe Tetsu, Kanako Nakayama, Taku Nishijo

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2-D-WS9-17-P

Sphingosine kinase 1 contributes to IgE-dependent basophil activation and the development of basophil-dependent delayed-onset skin allergic inflammation

◯ Kazufusa Takahashi[1, 2)], Kensuke Miyake[1)], Hajime Karasuyama[1)]

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2-D-WS9-18-P

Basophil dynamics during the active phase of urticaria using an Oxazolone-induced contact hypersensitivity mouse model

◯ Ni Ma[1)], Izumi Kishimoto[1)], Naotomo Kambe[1, 2)], Chisa Nakashima[2)], Atsushi Otsuka[2)], Kensuke Miyake[3)], Hajime Karasuyama[3)], Hideaki Tanizaki[1)]

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2-D-WS9-19-P

Semaphorin3A: A Novel Potential Target for Prevention and Treatment of Nickel Allergy

◯ Lipei Liu, Megumi Watanabe

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2-D-WS9-20-P

Fatty acid-binding protein 3 controls contact hypersensitivity through regulating skin dermal $V\gamma4^+$ γδ T cell development

◯ Shuhei Kobayashi, Yuji Owada

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2-D-WS9-21-P

A deficiency of Bach2 in T cells disrupts the barrier function of the epidermis in allergic contact dermatitis

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2-D-WS9-22-P

SMAD4 suppresses allergic contact dermatitis by inhibiting cytotoxic T lymphocyte-induced Th1 apoptosis

Mizuko Mamura[1, 2)], ◯ Jeong-Hwan Yoon[1, 2, 3)], Eunjin Bae[1, 2, 3, 4)], Susumu Nakae[5)], Jin Soo Han[3)], In-Kyu Lee[1)], Ji Hyeon Ju[6)], Okubo Yukari[7)]

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2-D-WS9-23-P

Therapeutic effects of an anti-sialyl Lewis X antibody in a murine model of allergic asthma

◯ Wei Xiong, Shogo Nishida, Jotaro Hirakawa, Hiroto Kawashima

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2-D-WS9-24-P

Production of IgE antibodies broadly cross-reactive to cell wall polysaccharides of multiple fungi in nasal mucosa of patients with allergic fungal rhinosinusitis

◯ Shuhei Sakakibara[1)], Kazuya Takeda[2)], Marwa Ali El-Hussien[1)], Hitoshi Kikutani[1)]

Immunology Frontier Research Center, Osaka University, Osaka, Japan[1)], Department of Otolaryngology, Kindai University Faculty of Medicine, Osaka, Japan[2)]

2-D-WS9-25-P

Crucial role of STING-dependent signaling in house dust mite extract-induced IgE production

◯ Yusuke Murakami, Hiroki Nunokawa, Tomoya Narita, Naomi Yamashita

Faculty of Pharmacy, Musashino university, Tokyo, Japan

2-D-WS9-26-P

Mesenteric Lymph node regulatory T cells affect osteoclasts differentiation in the chronic phase of comorbid bone loss in non-IgE-mediated allergic enteropathy

◯ Kohei Soga[1, 2)], Michio Tomura[3)], Satoshi Hachimura[1, 2)], Haruyo Nakajima-Adachi[1, 2)]

Department of Applied Biological chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan[1)], Research Center for Food Safety, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan[2)], Laborartory of Immunology, Facalty of Pharmacy, Osaka Ohtani University, Tondabayashi, Japan[3)]

2-D-WS9-27-P

Phototherapy, vitamin D_3 and microbiota in food allergy

◯ Toshiaki Nakano[1, 2)], Po-Jung Chen[1, 2)], Chia-Yun Lai[2)], Kuei-Chen Chang[1, 2)], Chao-Long Chen[2)]

Graduate Institute of Clinical Medical Sciences, Chang Gung University College of Medicine, Kaohsiung, Taiwan[1)], Liver Transplantation Center, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan[2)]

2-D-WS9-28-P

Calcipotriol Potentiates Sublingual Immunotherapy in Murine Delayed Type Hypersensitivity via Treg-mediated Suppression

◯ Reiska Kumala Bakti[1)], Toshinobu Kuroishi[1)], Shunji Sugawara[1)], Yukinori Tanaka[2)]

Division of Oral Immunology, Tohoku University Graduate School of Dentistry[1)], Division of Dento-oral Anaesthesiology, Tohoku University Graduate School of Dentistry[2)]

2-D-WS9-29-P

Mucosal mast cell differentiation is promoted by interdependent action of Notch and TGF-β signaling

◯ Nobuhiro Nakano, Jiro Kitaura, Ko Okumura

Atopy (Allergy) Research Center, Juntendo University Graduate School of Medicine, Tokyo, Japan

2-D-WS9-30-P

The Short Chain Fatty Acid-GPR109A Axis Suppress Mast Cell-Dependent Allergic Responses via PGE_2-EP3 signaling

◯ Kazuki Nagata, Daisuke Ando, Takuya Yashiro, Chiharu Nishiyama

Graduate School of Advanced Engineering, Department of Biological Science and Technology, Tokyo University of Science, Tokyo, Japan

2-D-WS9-31-P

Beta-2-adrenergic receptor contributes to IgE-mediated Ca^{2+}-influx in mast cells

Ruriko Okutani, Hitoshi Urakami, Kei Nagao, ◯ Yuki Fujita, Ayaka Komura, Soichiro Yoshikawa

Department of cellular physiology,Okayama university graduate school of medicine, dentistry and pharmaceutical science

2-D-WS9-32-P

The role of Sp140 revealed in IgE and mast cell responses in collaborative cross mice

◯ Kazufumi Matsushita[1, 2], Xin Li[2, 3, 4], Yuki Nakamura[2, 5], Danyue Dong[3], Kaori Mukai[2], Mindy Tsai[2], Stephen Montgomery[2, 4], Stephen Galli[2, 4]

Department of Immunology, Hyogo College of Medicine, Nishinomiya, Japan.[1], Department of Pathology, Stanford University School of Medicine, Stanford, CA, USA.[2], CAS Key Laboratory of Computational Biology, CAS-MPG Partner Institute for Computational Biology, Shanghai Institute of Nutrition and Health, University of Chinese Academy of Sciences, Chinese Academy of Sciences, Shanghai, China.[3], Department of Genetics, Stanford University School of Medicine, Stanford, CA, USA.[4], Department of Immunology, University of Yamanashi Faculty of Medicine, Yamanashi, Japan.[5]

2-D-WS9-33-P

Attenuation of signal transduction induced by diazinon in RBL-2H3 cells

◯ Goki Inoue, Miyoko Matsushima, Ko Iwaki, Yuki Hayashi, Teppei Yamashita, Moeko Ohara, Hikaru Tsuzuki, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine

2-D-WS9-34-P

CD300f suppresses IgE- and mast cell-dependent allergic rhinitis

◯ Ayako kaitani[1], Takuma Ide[1, 2], Kumi Izawa[1], Anna Kamei[1, 3], Tomoaki Ando[1], Akie Maehara[1], Hexing Wang[1, 3], Koji Tokushige[1, 3], Keiko Maeda[1], Nobuhiro Nakano[1], Ko Okumura[1], Jiro Kitaura[1]

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2-D-WS9-35-P

Analysis of pathogenic mechanism in *Anisakis* larvae infection

◯ Shinya Hidano[1, 2], Naganori Kamiyama[2], Nozomi Sachi[2], Sotaro Ozaka[2, 3], Takashi Sekiya[1], Satoshi Takaki[1], Takashi Kobayashi[2]

Department of Immune Regulation, The Research Center for Hepatitis and Immunology, National Center for Global Health and Medicine.[1], Department of Infectious Disease Control, Faculty of Medicine, Oita University.[2], Department of Gastroenterology, Faculty of Medicine, Oita University.[3]

December 9

WS10 Tumor microenvironment, Effector cells

Discussers: Yoshiki Akatsuka, Shin-Ichiro Fujii, Sayuri Horikawa, Hiroaki Ikeda, Tomonori Iyoda, Yutaka Kawakami, Naoko Ohtani, Noriko Ouji-Sageshima, Yasuyuki Saito

2-E-WS10-01-O/P

CD155 mutation (Ala67Thr) reduces NK cell cytotoxicity by enhancing TIGIT signal

◯ Tomohei Matsuo[1, 2], Akira Shibuya[1, 3, 4], Kazuko Shibuya[1, 4]

Departments of Immunology, Faculty of Medicine, University of Tsukuba[1], Doctoral Program of Clinical Sciences, Comprehensive Human Sciences, University of Tsukuba[2], Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance, University of Tsukuba[3], R&D Center for Innovative Drug Discovery, University of Tsukuba[4]

2-E-WS10-02-O/P

HLA-F as a new target molecule for cancer immunotherapy of colon cancer

◯ Noriko Ouji-sageshima, Masahiro Kitabatake, Ryutaro Furukawa, Toshihiro Ito

Nara Medical University, Department of Immunology, Nara, Japan

2-E-WS10-03-O/P

Immunological response in randomized phase II study of NKT cell-targeted immunotherapy in the non-small cell lung cancer patients

◯ Tomonori Iyoda, An Sanpei, Masami Kawamura, Jun Shinga, Kanako Shimizu, Shin-ichiro Fujii

RIKEN, Center for Integrative Medical Sciences, Kanagawa, Japan

2-E-WS10-04-O/P

Preclinical evaluation of the efficacy of anti-human SIRPα antibody for cancer immunotherapy by the use of humanized mice

◯ Yasuyuki Saito, Rie Norita-Iida, Daisuke Hazama, Refaat Alaa, Satomi Komori, Takenori Kotani, Yoji Murata, Takashi Matozaki

Division of Molecular and Cellular Signaling, Kobe University Graduate School of Medicine, Kobe, Japan

2-E-WS10-05-O/P

G-CSF enhances immunosuppressive activity of MDSCs by GGT1

Zhiqi Xie[1)], Haoyang Zhou[1)], Daisuke Okuzaki[2, 3)], Naoki Okada[1)], ◯ Masashi Tachibana[1, 4)]
Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan[1)], IFReC, Osaka University, Osaka, Japan[2)], RIMD, Osaka University, Osaka, Japan[3)], MEIC, Osaka University, Osaka, Japan[4)]

2-E-WS10-06-O/P

Basic research on the development of cancer therapy with Tumor-Infiltrating B cells

◯ Tsubasa Kobayashi[1)], Toshihiro Suzuki[2)], Tetsuya Nakatsura[2)], Daisuke Kitamura[1)]
Research institute of biomedical sciences, Tokyo University of science, Chiba, Japan[1)], National Cancer Center Japan, Chiba, Japan[2)]

2-E-WS10-07-O/P

STA551, a novel ATP-dependent CD137 agonist improved anti-tumor efficacy of T cell bispecific antibody in vivo

◯ Sayuri Horikawa[1)], Yoshinori Narita[1, 2)], Ryo Uchikawa[1)], Kenji Taniguchi[1)], Koki Hamada[1)], Shouichi Metsugi[1)], Mika Kamata-Sakurai[1)]
Research Division, Chugai Pharmaceutical Co. Ltd., Japan[1)], Chugai Pharmabody Research Pte. Ltd., Singapore[2)]

2-E-WS10-08-O/P

Human T cells illustrate TCR microclusters by triggering with bispecific antibodies, blinatumomab

◯ Hitoshi Nishijima[1)], Arata Takeuchi[1)], Ei Wakamatsu[1)], Wataru Nishi[1, 2)], Hiroaki Machiyama[1)], Tadashi Yokosuka[1)]
Department of Immunology, Tokyo Medical University, Tokyo, Japan[1)], Department of Thoracic Surgery, Kumamoto University[2)]

2-E-WS10-09-P

HER2-antigen-specific humoral immune response in breast cancer lymphocytes transplanted in hu-PBL hIL-4 NOG mice

◯ Yoshie Kametani[1)], Yusuke Ohno[1, 2)], Shino Ohshima[1)], Ryoji Ito[2)], Mamoru Ito[2)]
Department of Molecular Life Science, Division of Basic Medical Science, Tokai University School of Medicine, Kanagawa, Japan[1)], Central Institute for Experimental Animals, Kanagawa, Japan[2)]

2-E-WS10-10-P

Epigenetic regulation of MHC class I genes through NLRC5 in cancer

◯ Ning An, Toshiyuki Watanabe, Koichi Kobayashi
Department of Immunology, Graduate School of Medicine, Hokkaido University, Sapporo, Japan

2-E-WS10-11-P

Activation of antigen-presenting cells by senescence-like tumor cells

◯ Yukie Ando, Yutaka Horiuchi, Takashi Murakami
Department of Microbiology, Faculty of Medicine, Saitama Medical University, Saitama, Japan

2-E-WS10-12-P

Preparationof homogeneous antibody-drug conjugate (ADC) by site-specific glycan modification using functionalized PEG-sugar oxazoline derivative

◯ Mamoru Mizuno
The Noguchi Institute, Tokyo, Japan

2-E-WS10-13-P

Humanization of rabbit-derived T cell receptor-like antibodies and their evaluation

◯ Tomoko Nakamura[1, 2)], Tatsuhiko Ozawa[1)], Eiji Kobayashi[1)], Hiroshi Hamana[1)], Atsushi Muraguchi[1)], Hiroyuki Kishi[1)]
Department of Immunology, Faculty of Medicine, Academic Assembly, University of Toyama[1)], Department of Ophthalmology, Faculty of Medicine, Academic Assembly, University of Toyama[2)]

2-E-WS10-14-P

Salmonella infected-melanoma cells elicit anti-melanoma T-cell responses

◯ Yutaka Horiuchi, Yukie Ando, Takashi Murakami
Department of Microbiology, Faculty of Medicine, Saitama Medical University.

2-E-WS10-15-P

An optimized small molecule inhibitor cocktail supports maturation of dendritic cells in GM-CSF mouse bone marrow culture

◯ Shintaro Matsuba, Nobuyuki Onai
Department of Immunology, School of Medicine, Kanazawa Medical University, Uchinada, Japan

2-E-WS10-16-P

Identification of tumor tissue-specific macrophage subset by single cell RNA-seq analysis

◯ Ayumi Kuratani[1)], Masaaki Okamoto[1)], Masahiro Yamamoto[1, 2)]
Department of Immunoparasitology, RIMD, Osaka University[1)], Laboratory of Immunoparasitology, IFReC, Osaka University[2)]

2-E-WS10-17-P

Gemcitabine and anti-PD-1 antibody combination therapy induces anticancer effect in a murine model of pancreatic cancer liver metastasis

◯ Tuyen Thuy Bich Ho[1)], Yoshio Sakai[1)], Alessandro Nasti[2)], Akihiro Seki[1)]

Department of Gastroenterology, Kanazawa University Hospital, Kanazawa, Japan[1)], System Biology, Graduate School of Advanced Preventive Medical Sciences, Kanazawa[2)]

2-E-WS10-18-P

Enhancement of anti-tumor effects of anti PD-1 Ab by new Bruton's Tyrosine Kinase inhibitor through inhibiting immunosuppressive M2 like tumor associated macrophages

◯ Ryotaro Imagawa[1, 2)], Tomonori Yaguchi[1, 3)], Yuki Katoh[1, 4)], Yuko Uno[5)], Maiko Matsushita[2)], Masaaki Sawa[5)], Yutaka Kawakami[1, 6)]

Division of Cellular Signaling, Institute for Advanced Medical Research, Keio University School of Medicine, Tokyo, Japan[1)], Division of Clinical Physiology and Therapeutics, Keio University Faculty of Pharmacy, Tokyo, Japan[2)], Department of Immunology and Genomic Medicine, Center for Cancer Immunotherapy and Immunobiology, Graduate Kyoto University School of Medicine, Kyoto, Japan[3)], Division of Anatomical Science, Department of Functional Morphology, Nihon University School of Medicine, Tokyo, Japan[4)], Research and Development, Carna Biosciences, Inc., Kobe, Japan[5)], Department of Immunology, School of Medicine, International University of Health and Welfare, Chiba, Japan[6)]

2-E-WS10-19-P

Optimization of the method for in vitro MDSC differentiation

◯ Haoyang Zhou[1)], Zhiqi Xie[1)], Naoki Okada[1)], Masashi Tachibana[1, 2)]

Project for Vaccine and Immune Regulation, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan[1)], Global Center for Medical Engineering and Informatics, Osaka University, Osaka, Japan[2)]

2-E-WS10-20-P

IL-18 recruits CD103^{+} dendritic cells via NK cell activation and potentiates immunotherapy mediated by PD-1 blockade

◯ Yoshiya Ohno, Toshiyuki Tanaka

Laboratory of Immunobiology, School of Pharmacy, Hyogo University of Health Sciences, Hyogo, Japan

2-E-WS10-21-P

Immunomodulatory drugs (IMiDs) Upregulate Expression of NKG2D Ligand MICA/B in Adult T Cell Leukemia (ATL) Cells and Boost Their Susceptibility to NK Cytotoxicity

◯ Seiji Okada[1)], Jutatip Panaampon[2)]

Division of Hematopoiesis, Joint Research Center for Human Retrovirus Infection, Kumamoto University, Kumamoto, Japan[1)], Division of Hematologic Neoplasia, Department of Medical Oncology, Dana-Farber Cancer Institute, Harvard Medical School, Boston, USA[2)]

2-E-WS10-22-P

Establishment of novel immunotherapy targeting NK cells in metastatic colorectal cancer

◯ Genki Okumura[1)], Shohei Koyama[1)], Hiroyoshi Nishikawa[1, 2)]

Division of Cancer Immunology, Exploratory Oncology Research Center & Clinical Trial Center, National Cancer Center[1)], Department of Immunology, Nagoya University Graduate School of Medicine[2)]

2-E-WS10-23-P

Role of MHC Class I recognition in regulating anti-tumor effector function of lung-tissue resident mature NK cells

◯ Ka He[1)], Yui Yamamae[1)], Hideaki Tahara[2, 3)], Yoshihiro Hayakawa[1)]

Section of Host Defences, Institute of Natural Medicine, University of Toyama[1)], Project Division of Cancer Biomolecular Therapy, Institute of Medical Science, The University of Tokyo[2)], Department of Cancer Drug Discovery and Development, Osaka International Cancer Center[3)]

2-E-WS10-24-P

Variable gene repertoirome analysis of peripheral blood BCRs and CD4+ T cell TCRs(alpha/beta) for monitoring of tumor-associated immune responses

◯ Makoto Tsuiji

Department of Microbiology, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan

2-E-WS10-25-P

Direct identification of HLA class II neoantigens from colorectal cancer tissues

◯ Satoru Matsumoto[1, 2)], Takayuki Kanaseki[1)], Toshihiko Torigoe[1)]

Department of Pathology, Sapporo Medical University School of Medicine[1)], IMS Sapporo Digestive Disease Center General Hospital[2)]

2-E-WS10-26-P

Analyses of cross-reactivity of T cells specific for murine tumor cell lines

◯ Hitoshi Kondo[1)], Koji Eshima[1, 2)], Kazu Shiomi[3)], Kazuya Iwabuchi[1, 2)]

Program in Cellular Immunology , Kitasato University Graduate School of Medical Sciences[1)], Department of Immunology , Kitasato University School of Medicine[2)], Department of Thoracic Surgery , Kitasato University Hospital [3)]

December 9

WS11 Macrophages/Dendritic cells in inflammation and diseases

Discussers: Tsuneyasu Kaisho, Taro Kawai, Noriko Kubota, Kensuke Miyake, Daisuke Ori, Hideaki Takagi, Rei Takahashi, Hiroyuki Tezuka, Noriko Toyama-Sorimachi

2-F-WS11-01-O/P

Alveolar macrophages instruct CD103+CD8+ T_{RM} cells formation via antigen cross-presentation

◯ Takumi Kawasaki, Moe Ikegawa, Taro Kawai
Nara Institute of Science and Technology (NAIST), Ikoma, Japan

2-F-WS11-02-O/P

A novel therapeutic strategy of pulmonary fibrosis based on arginine metabolism in macrophages

◯ Noriko Toyama-Sorimachi, Dat Nguyen-Tien, Toshihiko Kobayashi
Department of Molecular Immunology and Inflammation, Research Institute, National Center for Global Health and Medicine

2-F-WS11-03-O/P

Hyperactivation of STING-induced type I interferon pathway in dendritic cells from novel mice model for an autoinflammatory disease, COPA syndrome

◯ Takashi Kato[1)], Takashi Orimo[1)], Yuri Fukuda-Ohta[1)], Sasaki Izumi[1)], Hiroaki Hemmi[1, 2)], Yoshitaka Honda[3, 4, 5)], Kazushi Izawa[5)], Ryuta Nishikomori[6)], Tsuneyasu Kaisho[1)]
Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Wakayama, Japan[1)], Laboratory of Immunology, Faculty of Veterinary Medicine, Okayama University of Science, Imabari, Japan[2)], Institute for the Advanced Study of Human Biology (ASHBi), Kyoto University, Kyoto, Japan[3)], Department of Immunology, Kyoto University Graduate School of Medicine, Kyoto, Japan[4)], Department of Pediatrics, Kyoto University Graduate School of Medicine, Kyoto, Japan[5)], Department of Pediatrics and Child Health, Kurume University School of Medicine, Kurume, Japan[6)]

2-F-WS11-04-O/P

Loss of Rab7a in dendritic cells causes type 2 autoimmune hepatitis and primary biliary cholangitis

◯ Shin-Ichiroh Saitoh, Yoshiko-Mori Saitoh, Kensuke Miyake
The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

2-F-WS11-05-O/P

SIRPα supports the survival of dendritic cells by regulating the NF-κB activation

◯ Satomi Komori, Yasuyuki Saito, Respatika Datu, Takenori Kotani, Yoji Murata, Takashi Matozaki
Division of Molecular and Cellular Signaling, Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine, Kobe, Japan

2-F-WS11-06-O/P

The effects of the gut lactic acid bacteria-generated metabolite 10-oxo-*cis*-6,*trans*-11-octadecadienoic acid on inflammatory responses *in vivo* and *in vitro*

◯ Naoki Kodama, Takuya Yashiro, Kazuki Nagata, Miki Ando, Chiharu Nishiyama
Graduate School of Advanced Engineering, Department of Biological Science and Technology, Tokyo University of Science, Tokyo, Japan

2-F-WS11-07-O/P

Phosphorylated FROUNT regulates CCR2/5-mediated chemotactic signaling via the PI3KIA

◯ Ming Chen Chen[1, 2)], Yuya Terashima[1)], Etsuko Toda[1, 3)], Seiichiroh Ohsako[2)], Kouji Matsushima[1)]
Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Science (RIBS), Tokyo University of Science, Tokyo, Japan[1)], Laboratory of Microenvironmental and Metabolic Health Science, Department of Social Medicine, The University of Tokyo, Tokyo, Japan[2)], Department of Analytic Human Pathology, Nippon Medical School, Tokyo, Japan[3)]

2-F-WS11-08-P

TYRO3 mediates exosome-borne antigen cross-presentation by dendritic cells

◯ Takashi Koyama, Nobuyuki Tanaka
Division of Tumor Immunobiology, Miyagi Cancer Center Research Institute

2-F-WS11-09-P

Identification of TXP as a molecule involved in antigen cross-presentation

◯ Moe Ikegawa, Takumi Kawasaki, Taro Kawai
Molecular Immunology Lab. / Biological Science Dept., Nara Institute of Science and Technology

2-F-WS11-10-P

The scaffold-dependent function of RIPK1 in dendritic cells promotes injury-induced colitis

◯ Kenta Moriwaki[1)], Hiroyasu Nakano[1)], Francis Chan[2)]
Department of Biochemistry, Toho University School of Medicine, Tokyo, Japan[1)], Department of Immunology, Duke University School of Medicine, North Carolina, USA[2)]

2-F-WS11-11-P

A profile of pro-inflammatory cytokine expression in human Delta-1-induced monocyte-derived Langerhans cell-like dendritic cells after stimulation with Toll-like receptor ligands

◯ Rei Takahashi, Sanju Iwamoto, Toshihiro Tanioka, Kohei Maeda
Showa University School of Pharmacy, Tokyo, Japan

2-F-WS11-12-P

The effects of short-chain fatty acids on the development and gene expression of dendritic cells

◯ Weiting Zhao, Kazuki Nagata, Takuya Yashiro, Chiharu Nishiyama
Graduate School of Advanced Engineering, Department of Biological Science and Technology, Tokyo University of Science,Tokyo,Japan

2-F-WS11-13-P

Impaired development of myeloid cells in proteasome subunit mutant mice

◯ Hiroaki Hemmi[1, 2], Takashi Orimo[2], Izumi Sasaki[2], Takashi Kato[2], Yuri Fukuda-Ohta[2], Noriko Kinjo[3], Hidenori Ohnishi[4], Nobuo Kanazawa[5, 6], Tsuneyasu Kaisho[2]
Faculty of Veterinary Medicine, Okayama University of Science[1], Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University[2], Department of Child Health and Welfare (Pediatrics), Graduate School of Medicine, University of the Ryukyus[3], Department of Pediatrics, Graduate School of Medicine, Gifu University[4], Department of Dermatology, Hyogo College of Medicine[5], Department of Dermatology, Wakayama Medical University[6]

2-F-WS11-14-P

Plasmacytoid dendritic cells potentiate an effective anti-tumor immunity by preventing T-cell exhaustion

◯ Hideaki Takagi, Tomofumi Uto, Tomohiro Fukaya, Youtarou Nishikawa, Moe Tominaga, Katsuaki Sato
Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki, Japan

2-F-WS11-15-P

Langerhans cells suppress the population of pathogenic CD8$^+$ T cells in situ during mucocutaneous acute graft-versus host disease

◯ Noriko Kubota[2], Ryota Tanaka[2], Yoshiyuki Nakamura[2], Björn E. Clausen[3], Manabu Fujimoto[1], Naoko Okiyama[2]
Department of Dermatology, Course of Integrated Medicine, Graduate School of Medicine, Osaka University, Japan[1], Department of Dermatology, Faculty of Medicine, University of Tsukuba, Japan[2], Institute for Molecular Medicine, University Medical Center of the Johannes Gutenberg-University Mainz, Germany[3]

2-F-WS11-16-P

CD11c-dependent ablation of the Protein Tyrosine Phosphatase Shp1 improves insulin resistance

◯ Shreya Shrestha[1], Yoriaki Kaneko[1], Masato Kinoshita[1], Yoichi Imai[1], Junya Suwa[1], Mitsuharu Watanabe[1], Yuko Oishi[1], Yasuyuki Saito[2], Hiroshi Ohnishi[3], Takashi Matozaki[2], Keiju Hiromura[1]
Department of Nephrology and Rheumatology, Gunma University Graduate School of Medicine[1], Department of Biochemistry and Molecular Biology, Kobe University Graduate School of Medicine[2], Department of Laboratory Sciences, Gunma University Graduate School of Health Sciences[3]

2-F-WS11-17-P

Deficiency of moesin causes spontaneous lung inflammation in mice

◯ Yuzuki Nakamura, Hiroki Satooka, Takako Hirata
Department of Fundamental Biosciences, Otsu, Shiga University of Medical Science, Japan

2-F-WS11-18-P

A novel mechanisms of lung fibrosis mediated by SLC15A3

◯ Dat Nguyen-Tien[1], Toshihiko Kobayashi[1], Shigeyuki Shichino[2], Satoshi Ueha[2], Masato Kubo[3, 4], Kouji Matsushima[2], Noriko Toyama-Sorimachi[1]
Department of Molecular Immunology and Inflammation, Research Institute, National Center for Global Health and Medicine, Tokyo, Japan[1], Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute of Biomedical Sciences, Tokyo University of Science, Chiba, Japan[2], Laboratory for Cytokine Regulation, Center for Integrative Medical Science (IMS), RIKEN Yokohama Institute, Kanagawa, Japan.[3], Division of Molecular Pathology, Research Institute of Biomedical Sciences, Tokyo University of Science, Chiba, Japan[4]

2-F-WS11-19-P

Immune modulation by Bifidobacteria-derived molecules

◯ Yuma Itoh, Naoto Fujioka, Saotomo Itoh, Shigesaki Hida
Department of Molecular and Cellular Health Sciences, Graduate School of Pharmaceutical Sciences Nagoya City University, Nagoya, Japan

2-F-WS11-20-P

Conjugation of protein antigen with pullulan enhances production of specific antibodies by augmenting activation of dendritic cells

◯ Shinji Kunitake, Wang Long, Takeshi Tsubata
Department of immunology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

2-F-WS11-21-P

Identification of a novel macrophage subset involved in pulmonary fibrosis by intravital imaging techniques

◯ Akio Suzuki, Junichi Kikuta, Masaru Ishii
Department of Immunology and Cell Biology, Graduate School of Medicine and Frontier Biosciences, Osaka University, Osaka, Japan

2-F-WS11-22-P

Elucidation of the pathogenesis of NASH by intravital imaging technology

◯ Sayaka Ishida, Junichi Kikuta, Masaru Ishii
Department of Immunology and Cell Biology, Graduate School of Medicine and Frontier Biosciences, Osaka University

2-F-WS11-23-P

Pro-fibrotic properties of C1q producing interstitial macrophages in silica-induced pulmonary fibrosis in mice

◯ Tatsuro Ogawa, Shigeyuki Shichino, Satoshi Ueha, Kouji Matsushima
Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science, Noda, Chiba, Japan

2-F-WS11-24-P

Functional analysis of Aire-expressing dendritic cells

◯ Ryuichiro Miyazawa[1)], Minoru Matsumoto[1)], Junko Morimoto[1)], Hideyuki Yoshida[2)], Mitsuru Matsumoto[1)]
Division of Molecular Immunology, Institute for Enzyme Research, Tokushima University[1)], YCI Laboratory for Immunological Transcriptomics, RIKEN Center for Integrative Medical Science[2)]

2-F-WS11-25-P

Nucleosides drive histiocytosis in SLC29A3 disorders by activating TLR7

◯ Takuma Shibata, Yuji Motoi, Ryota Sato, Shin-Ichiroh Saitoh, Kensuke Miyake
Division of Innate Immunity, Department of Microbiology and Immunology, The Institute of Medical Science, The University of Tokyo

2-F-WS11-26-P

Clathrin heavy chain positively regulates NLRP3 inflammasome activation

◯ Hiep Hung Huynh, Masumi Shimizu, Rimpei Morita
Nippon Medical School, Tokyo,Japan

2-F-WS11-27-P

1′-acetoxychavicol acetate inhibits NLRP3-dependent inflammasome activation via mitochondrial ROS suppression

◯ Daisuke Ori, Sophia Sok, Takumi Kawasaki, Masatoshi Momota, Taro Kawai
Division of Biological Science, NARA Institute of Science and Technology, Ikoma, Japan

December 9

WS12 Mucosal-Skin Immunity

Discussers: Ryota Asahina, Koji Hase, Shunya Hatai, Kiyoshi Hirahara, Koji Hosomi, Jun Kunisawa, Yohei Mikami, Saeko Nakajima

2-A-WS12-01-O/P

IL15-dependent ILC1s drive epidermal differentiation to sustain skin barrier

◯ Tetsuro Kobayashi[1)], Aki Minoda[2)], Kazuyo Moro[1)]
Innate Immune Systems, IMS, RIKEN, Yokohama, Japan[1)], Laboratory for Cellular Epigenomics, IMS, RIKEN, Yokohama, Japan[2)]

2-A-WS12-02-O/P

Sublingual dendritic cell (DC) - T cell clusters and distribution of DCs in the oral cavity

Yutaka Kusumoto[1)], Tsuneyasu Kaisho[2)], Hiroaki Hemmi[2)], Tomoya Katakai[3)], Tetsuya Honda[4)], Junichi Kikuta[5)], Kousuke Kataoka[6)], Taiki Moriya[1)], Masaru Ishii[5)], Kenji Kabashima[4)], ◯ Michio Tomura[1)]
Laboratory of Immunology, Faculty of Pharmacy, Osaka Ohtani University, Osaka, Japan[1)], Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Graduate school of Medicine, Wakayama, Japan[2)], Department of Immunology, Graduate School of Medical and Dental Sciences, Niigata University, Niigata, Japan[3)], Department of Dermatology, Kyoto University, Graduate School of Medicine, Kyoto, Japan[4)], Laboratory of Immunology and Cell Biology, Graduate school of Medicine, Osaka University, Osaka, Japan[5)], Department of Oral Health Science and Social Welfare, Graduate School of Biomedical Sciences, Tokushima University, Tokushima, Japan[6)]

2-A-WS12-03-O/P

Clathrin adaptor protein 1B maintains the interaction of intestinal epithelial cells and intraepithelial lymphocytes

◯ Ryohtaroh Matsumoto[1)], Daisuke Takahashi[1)], Shunsuke Kimura[1)], Hiroshi Ohno[2)], Koji Hase[1)]
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2-A-WS12-04-O/P

Retention of CD4$^+$ tissue-resident memory T cells by interacting with CD301b$^+$ dermal dendritic cells via CXCL16 in a murine delayed-type hypersensitivity model

◯ Ryota Asahina, Gyohei Egawa, Kenji Kabashima
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2-A-WS12-05-O/P

Crosstalk between enteric neurons and immune cells in the maintenance of intestinal homeostasis

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2-A-WS12-06-O/P

MicroRNA-221/222 regulate gut homeostasis via tuning Th17 cells phenotype

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2-A-WS12-07-O/P

A symbiotic mechanism of intestinal lymphoid tissue resident *Alcaligenes* by controlling metabolic modification in dendritic cells

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2-A-WS12-08-O/P

Intestinal Th17 cells induced by commensal fungi prevent inflammatory bowel disease

◯ Yoshiyuki Goto[1, 2]

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2-A-WS12-09-O/P

Staphylococcus cohnii is a skin commensal with biotherapeutic potentials alleviating skin inflammation

◯ Yoshihiro Ito[1, 2], Hiroshi Kawasaki[1, 2], Masayuki Amagai[1, 2], Kenya Honda[1, 2]

Keio University School of Medicine[1], RIKEN, IMS[2]

2-A-WS12-10-P

An inhibitory immunoreceptor, Allergin-1, suppresses FITC-induced contact dermatitis

◯ Mariana Almeida[1, 2], Satoko Tahara-Hanaoka[1, 3, 4], Shohei Shibagaki[1], Shiro Shibayama[5], Akira Shibuya[1, 3, 4]

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2-A-WS12-11-P

Commensal microbiota influences immune profiles at the maternal-fetal interface

◯ Takahiro Yamada, Koji Hase

Division of Biochemistry, Department of Pharmacy, Keio University

2-A-WS12-12-P

A licorice-derived ingredient ameliorates metabolic syndrome through the alteration of gut microbiota

◯ Riko Ishibashi[1], Yukihiro Furusawa[1], Hiroe Honda[2], Yoshinori Nagai[1]

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2-A-WS12-13-P

Identification and characterization of a novel Enterococcus bacteriophage thatalleviates murine experimental colitis

◯ Junko Nishio[1, 2, 3], Sho Hangai[2, 3], Hideyuki yanai[2, 3], Tadatsugu Taniguchi[2, 3], Hideo Negishi[3]

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2-A-WS12-14-P

The lack of IgA spontaneously induces the inflammation only in the ileum

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2-A-WS12-15-P

A disease-associated Foxp3 mutation interacts with the microbiota to perturb homeostasis of colonic eosinophils

◯ Shiki Masumoto[1)], Hiroki Kono[1)], Akira Nakajima[1)], Takaharu Sasaki[2)], Hiroshi Ohno[2)], Shohei Hori[1)]

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2-A-WS12-16-P

Intestinal microbe-dependent omega-3 lipid metabolite alpha-KetoA prevents inflammatory diseases

◯ Takahiro Nagatake[1)], Emiko Urano[2)], Tetsuya Honda[3, 4)], Azusa Saika[1)], Koji Hosomi[1)], Ayu Matsunaga[1)], Makoto Arita[5, 6, 7)], Kenji Kabashima[3)], Yasuhiro Yasutomi[2)], Jun Kunisawa[1, 8, 9, 10, 11)]

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2-A-WS12-17-P

The effect of vitamin A deficiency on murine indigenous microbiota studied by a novel developed method BarBIQ

◯ Jianshi Jin[1)], Guangwei Cui[2)], Reiko Yamamoto[1)], Tadashi Takeuchi[3)], Eiji Miyauchi[3)], Nozomi Hojo[1)], Hiroshi Ohno[3)], Koichi Ikuta[2)], Katsuyuki Shiroguchi[1)]

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2-A-WS12-18-P

IFN-g signaling plays both pro-inflammatory and immunoregulatory roles depending on the cell types in mouse dermatitis model

◯ Miho Mukai[1)], Hayato Takahashi[1)], Masayuki Amagai[1, 2)]

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2-A-WS12-19-P

The Ccl17 gene encoding TARC is synergistically transactivated by PU.1 and IRF4 driven by the mammalian common promoter in dendritic cells

◯ Naoto Ito, Kazuki Nagata, Tomoka Ito, Takuya Yashiro, Chiharu Nishiyama

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2-A-WS12-20-P

The role of TL1A-DR3 system in intestinal epithelial cells

◯ Yosuke Shimodaira

Akita University Graduate School of Medicine, Department of Gastroenterology and Neurology

2-A-WS12-21-P

An aluminum-containing food additive upregulates gene expression involved in inflammatory cell death in intestinal epithelial cells

◯ Ayako Wakabayashi[1)], Atsuko Owaki[1)], Ken Iwatsuki[2)], Yasuhiro Nishiyama[3)], Shoji Matsune[4)], Rimpei Morita[1)]

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2-A-WS12-22-P

Monoclonal Immunoglobulin A W27 binds to a novel candidate of bacterium associated with colitis in inflammatory bowel disease patients

◯ Keishu Takahashi, Naoki Morita, Reiko Shinkura

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2-A-WS12-23-P

Identification of bacteria with the ability to induce the intestinal IgA production and elucidation of their physiological functions

◯ Riho Matsumura, Naoki Morita, Reiko Shinkura

Institute for Quantitative Biosciences, The University of Tokyo, Tokyo, Japan

2-A-WS12-24-P

A Japanese Kampo, Daikenchuto, Alleviates Experimental Colitis by Enhancing Group 3 Innate Lymphoid cells and Reshaping Gut Microbiota in Mice

◯ Zhengzheng Shi[1, 2)], Naoko Satoh-Takayama[2, 3)], Yumiko Nakanishi[2, 3)], Ritsu Nagata[2, 3)], Katharina Beck[2)], Tadashi Takeuchi[2)], Hiroshi Ohno[1, 2, 3)]

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2-A-WS12-25-P

Suppression mechanism of colitis by appendectomy

◯ Shunya Hatai[1)], Yasutaka Motomura[1, 2, 3)], Kazuyo Moro[1, 2, 3, 4)]

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2-A-WS12-26-P

Orchestration of mucosal inflammation by mesenchymal uridine diphosphate-glucose receptor

◯ Akito Katori[1)], Yukari Saito[1)], Peter B Ernst[2)], Hiroshi Kiyono[2, 3, 4, 5)], Yosuke Kurashima[1, 2, 3, 4, 5)]

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2-A-WS12-27-P

Reactive sulfide species generated by cysteinyl-tRNA synthetase plays a regulatory role in T cell-induced colitis in a T cell-intrinsic manner

◯ Shunichi Tayama[1)], Takeshi Kawabe[1)], Yuya Kitamura[1)], Kyoga Hiraide[1)], Jing Li[1)], Ziying Yang[1)], Akihisa Kawajiri[1)], Kosuke Sato[1)], Yuko Okuyama[1)], Masanobu Morita[2)], Takaaki Akaike[2)], Naoto Ishii[1)]

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2-A-WS12-28-P

Physiological expression of St6galnac1 protects mice from allergic conjunctivitis

◯ Tomoaki Ando[1)], Moe Matsuzawa[1, 2, 3)], Saaya Fukase[1, 2, 3)], Meiko Kimura[1, 2, 3)], Kumi Izawa[1)], Ayako Kaitani[1)], Nobuhiro Nakano[1)], Keiko Maeda[1)], Ko Okumura[1)], Akira Murakami[3)], Nobuyuki Ebihara[2, 3)], Jiro Kitaura[1, 4)]

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2-A-WS12-29-P

Induction of antigen-specific immune responses by IL-33 as a mucosal adjuvant

◯ Amane Mukai, Koubun Yasuda, Shiori Egashira, Takumi Adachi, Kazufumi Matushita, Etsushi Kuroda

Department of Immunology, Hyogo Collage of Medicine

2-A-WS12-30-P

Structure-activity relationship between mucosal adjuvanticity and surfactants –second report–

◯ Naoto Yoshino, Takashi Odagiri, Yasushi Muraki

Division of Infectious Diseases and Immunology, Department of Microbiology, School of Medicine, Iwate Medical University, Iwate, Japan

2-A-WS12-31-P

Gut dysbiosis abrogates the protective effect of oral tolerance through the dysfunction of CD103+ cDCs in mesenteric lymph nodes

Tomofumi Uto, Hideaki Takagi, Youtarou Nishikawa, Moe Tominaga, Katsuaki Sato, ◯ Tomohiro Fukaya

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2-A-WS12-32-P

Dermatitis induced by the GATA3 mutations in T cells

◯ Shoichiro Miyatake

Department of Immunology, Graduate School of Environmental Health Sciences, Azabu university

2-A-WS12-33-P

Involvement of CD96 immunoreceptor on dermal gdT cells in the development of imiquimod-inducedpsoriasis

Akira Shibuya[1, 2, 3)], Kazuko Shibuya[1, 3)], ◯ Kyoto Oh-oka[1, 4)]

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2-A-WS12-34-P

Selective expression of a novel C-type lectin receptor, Clec12b

◯ Ayana Iijima[1, 2], Kazumasa Kanemaru[2], Tsukasa Nabekura[2, 3, 4], Satoko Tahara-Hanaoka[2, 3, 4], Akira Shibuya[2, 3, 4]

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2-A-WS12-35-P

CCL2-CCR2 signaling in the skin drives chronic irritant contact dermatitis via IL-1β-mediated neutrophilaccumulation

◯ Rintaro Shibuya[1], Yoshihiro Ishida[1], Sho Hanakawa[2], Tatsuki R. Kataoka[3], Teruasa Murata[2], Akihiko Kitoh[1, 2], Kenji Kabashima[1, 2]

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December 9

WS13 Autoimmune disease-2

Discussers: Chizuru Akatsu, Shohei Hori, Mari Kaiya, Mitsuru Matsumoto, Sachiko Miyake, Kunihiro Otsuka, Atsushi Tanaka, Sayuri Yamazaki, Yoshiaki Yasumizu

2-B-WS13-01-O/P

Gut microbiota regulated miRNA in pathogenesis of Multiple sclerosis

◯ Manu Mallahalli[1], Hirohiko Hohjoh[2], Wakiro Sato[1], Shinji Oki[1], Takashi Yamamura[1]

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2-B-WS13-02-O/P

The integrative analysis of large-scale bulk and single-cell RNAseq revealed neuromuscular molecules production by nmTEC in myasthenia gravis related thymoma

◯ Yoshiaki Yasumizu[1, 2], Hisashi Murata[2], Makoto Kinoshita[2], Satoshi Nojima[3], Naganari Ohkura[1], Tatsusada Okuno[2], Shimon Sakaguchi[1]

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2-B-WS13-03-O/P

Single-cell RNA sequencing reveals accumulation of CD4 and CD8 T cells with unique phenotypes in salivary glands of Sjögren's syndrome model mice

◯ Kunihiro Otsuka[1, 2], Shin-ishi Tsukumo[1], Rieko Arakaki[3], Hideo Yagita[4], Naozumi Ishimaru[3], Koji Yasutomo[1]

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2-B-WS13-04-O/P

Analysis of class-switching to IgG4 in memory B cell subsets of IgG4-Related Disease

◯ Aya Nishiwaki[1], Toshihiko Komai[1], Yasuo Nagafuchi[1, 2], Mineto Ota[1, 2], Ryochi Yoshida[1], Hiroaki Hatano[1], Haruka Tsuchiya[1], Saeko Yamada[1], Masahiro Nakano[1], Mai Okubo[1], Satomi Kobayashi[1], Yusuke Sugimori[1], Yusuke Takeshima[1], Yukiko Iwasaki[1], Shuji Sumitomo[1], Hirofumi Shoda[1], Kazuhiko Yamamoto[3], Tomohisa Okamura[1, 2], Keishi Fujio[1]

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2-B-WS13-05-O/P

CD72 inhibits lupus-specific B cell autoimmunity caused by response to apoptotic cells through recognition of lupus-specific self-antigens

◯ Chizuru Akatsu[1], Quan-Zhen Li[2], Hideharu Sekine[3], Teizo Fujita[4], Takeshi Tsubata[1]

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2-B-WS13-06-O/P

Targeting necroptosis in muscle fibers ameliorates experimental inflammatory myopathies

◯ Mari Kamiya, Shinsuke Yasuda

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2-B-WS13-07-O/P

Role of innate immunity in the spontaneous development of pulmonary fibrosis

◯ Yuki Hara[1)], Yasutaka Motomura[1, 2, 3)], Kazuyo Moro[1, 2, 3, 4)]

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2-B-WS13-08-O/P

Inflammatory potential of self-driven memory-phenotype $CD4^+$ T cells

◯ Akihisa Kawajiri[1, 2)], Minami Ishii[1)], Li Jing[1)], Yang Ziying[1)], Kosuke Sato[1)], Shunichi Tayama[1)], Yuko Okuyama[1)], Hideo Harigae[2)], Naoto Ishii[1)], Takeshi Kawabe[1)]

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2-B-WS13-09-P

Effect of aging on central neuroinflammation

◯ Reiji Yamamoto[1, 2)]

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2-B-WS13-10-P

A survival factor of blood-derived MHC class II^{hi} cells in the CNS, which is critical for pain-mediated EAE relapse

◯ Shiina Matsuyama, Nobuhiko Takahashi, Shintaro Hojyo, Daisuke Kamimura, Masaaki Murakami

Molecular Neuroimmunology, Institute for Genetic Medicine, Hokkaido University

2-B-WS13-11-P

Roles of a metabolite during EAE development

◯ Yuki Tanaka[1)], Madoka Higuchi[1)], Rie Hasebe[2)], Shintaro Hojyo[1)], Daisuke Kamimura[1)], Masaaki Murakami[1)]

Molecular Psychoimmunology, Institute for Genetic Medicine, Graduate School of Medicine, Hokkaido University[1)], Center for Infection-Associated Cancer, Institute for Genetic Medicine, Graduate School of Medicine, Hokkaido University[2)]

2-B-WS13-12-P

Curcumin monoglucuronide (CMG) suppresses autoimmune model of multiple sclerosis via altered gut microbiota

◯ Sundar Khadka[1)], Seiichi omura[1)], Fumitaka Sato[1)], Kazuto Nishio[2)], Hideaki Kakeya[3)], Ikuo Tsunoda[1)]

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2-B-WS13-13-P

Analysis of naïve B cell in neuromyelitis optica spectrum disorders

◯ Shuhei Sano[1)], Daisuke Noto[1)], Yasunobu Hoshino[1, 2)], Yuji Tomizawa[2)], Kazumasa Yokoyama[2)], Nobutaka Hattori[2)], Sachiko Miyake[1)]

Department of Immunology, Juntendo University School of Medicine, Tokyo, Japan[1)], Department of Neurology, Juntendo University School of Medicine, Tokyo, Japan[2)]

2-B-WS13-14-P

Thyrotropin receptor antibody (TRAb)-IgM induced by Epstein-Barr virus reactivation injures thyroid follicular epithelial cells: Pathogenesis of Graves' disease

◯ Keiko Nagata[1)], Kazuhiko Hayashi[2)], Takeshi Imamura[1)]

Division of Pharmacology, Faculty of Medicine, Tottori University, Yonago, Japan[1)], Department of Pathology, Faculty of Medicine, Tottori University, Yonago, Japan[2)]

2-B-WS13-15-P

Identification of the primary functional variants in primary biliary cholangitis susceptibility gene *CCR6/FGFR1OP*

◯ Yuki Hitomi[1)], Yoshihiro Aiba[2)], Makoto Tsuiji[1)], Minoru Nakamura[2, 3)]

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2-B-WS13-16-P

Possible involvement of the voltage-gated sodium channel 1.7 in activation of BAFF signaling in monocytes of patients with primary Sjögren's syndrome

◯ Keiko Yoshimoto, Katsuya Suzuki, Yumi Ikeda, Eriko Takei, Tsutomu Takeuchi
Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine

2-B-WS13-17-P

Signaling pathways via Toll-like receptor 4 are involved in enhanced expression of BAFF receptor in $CD14^{+}CD16^{+}$human monocytes

◯ Yumi Ikeda, Keiko Yoshimoto, Katsuya Suzuki, Eriko Takei, Tsutomu Takeuchi
Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine

2-B-WS13-18-P

CD74 downregulation develops autoimmunity leading to systemic lupus erythematosus

◯ Shunsuke Mori[1)], Masako Kohyama[1, 2)], Hisashi Arase[1, 2)]
Laboratory of Immunochemistry, Immunology Frontier Research Center (IFReC), Osaka University[1)], Department of Immunochemistry, Research Institute for Microbial Diseases (RIMD), Osaka University[2)]

2-B-WS13-19-P

Newly generated DOCK8-expressing T follicular helper cells cause systemic lupus erythematosus

◯ Shunichi Shiozawa[1, 2, 3)], Ken Tsumiyama[1, 3)], Keiichi Sakurai[2)], Tsukasa Matsubara[1, 3)], Takashi Yamane[4)], Masaaki Miyazawa[5)]
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2-B-WS13-20-P

IKBKE contributes to neuropsychiatric manifestations in lupus-prone mice through microglial activation

◯ Kohei Karino, Michihito Kono, Yuki Kudo, Nobuya Abe, Yuichiro Fujieda, Masaru Kato, Tatsuya Atsumi
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2-B-WS13-21-P

Neutrophil extracellular trap (NET)-based clustering revealed the NET-dominant inflammatory subpopulation of patients with systemic lupus erythematosus

◯ Norio Hanata[1)], Hirofumi Shoda[1)], Mineto Ota[2)], Haruka Tsuchiya[1)], Yumi Tsuchida[1)], Yasuo Nagafuchi[2)], Tomohisa Okamura[2)], Keishi Fujio[1)]
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2-B-WS13-22-P

Dietary supplementation with eicosapentaenoic acid inhibits plasma cell differentiation and attenuates lupus autoimmunity

◯ Ayaka Ito[1)], Azusa Kobayashi[1, 2)], Ibuki Shirakawa[1)], Atsushi Tamura[3)], Susumu Tomono[4)], Hideo Shindou[5, 6)], Per Niklas Hedde[7)], Miyako Tanaka[1)], Naotake Tsuboi[8)], Takuji Ishimoto[2)], Sachiko Akashi-Takamura[4)], Shoichi Maruyama[2)], Takayoshi Suganami[1)]
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2-B-WS13-23-P

Increased Th10 like cells in lupus model mice induced by topical treatment withToll-like receptor 7 agonist imiquimod

◯ Reona Tanimura, Yuya Kondo, Kotona Furuyama, Masaru Shimizu, Hiroyuki Takahashi, Hiroto Tsuboi, Isao Matsumoto, Takayuki Sumida
Internal Medicine, University of Tsukuba

2-B-WS13-24-P

Pro-inflammatory roles for bone marrow stromal cell antigen-1 (BST-1)/CD157 in colitis induced by dextran sodium sulfate (DSS)

◯ Ayano Yahagi, Masanori Iseki, Tomoyuki Mukai, Katsuhiko Ishihara
Department of Immunology and Molecular Genetics, Kawasaki Medical School, Okayama, Japan

2-B-WS13-25-P

Hypomorphic mutation of *Lig4* gene in mice predisposes to intestinal inflammation driven by CD4$^+$ Th1 cells

◯ Yusuke Yamashita[1)], Takashi Orimo[2)], Takashi Kato[2)], Yuri Fukuda-Ohta[2)], Izumi Sasaki[2)], Hiroaki Hemmi[2, 3)], Shinobu Tamura[1)], Tsuneyasu Kaisho[2)]

Department of Hematology/Oncology, Wakayama Medical University, Wakayama, Japan[1)], Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, Wakayama, Japan[2)], Laboratory of Immunology, Faculty of Veterinary Medicine, Okayama University of Science, Imabari, Japan[3)]

December 9

WS14 B cell- B cell differentiation and anti-SARS-CoV-2 antibody responses

Discussers: Yoshihiro Baba, Masaki Hikida, Michelle Sue Jann Lee, Saya Moriyama, Kyoko Ochiai, Ryota Otsubo, Yoshimasa Takahashi, Hidetaka Tanno, Takeshi Tsubata

2-C-WS14-01-O/P

Conserved two E-box sequences neighboring the Rag1-promoter is critically required for the initiation of Rag1 gene expression upon T and B cell lineage commitment; Distinct gene regulation mediated by enhancers and promoter for adaptive immunity

◯ Masaki Miyazaki, Hiroshi Kawamoto, Kazuko Miyazaki

Institute for Frontier Medical and Life Sciences, Kyoto University

2-C-WS14-02-O/P

A single microRNA miR-195 rescues EBF1 deficiency in B cell differentiation

◯ Yuji Miyatake[1)], Tomokatsu Ikawa[2)], Ken-ichi Hirano[3)], Katsuto Hozumi[3)], Tomohiro Kurosaki[4, 5)], Kiyoshi Ando[6)], Hiroshi Kawamoto[7)], Ai Kotani[1)]

Department of Advanced Medical Science, Tokai University School of Medicine, Isehara, Japan[1)], RIKEN Research Center for Allergy and Immunology, Yokohama, Japan[2)], Department of Immunology, Tokai University School of Medicine, Isehara, Japan[3)], Laboratory for Lymphocyte Differentiation, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan[4)], Laboratory for Lymphocyte Differentiation, WPI Immunology Frontier Research Center and Graduate School of Frontier Biosciences, Osaka University, Suita, Japan[5)], Department of Hematology, Tokai University School of Medicine, Isehara, Japan[6)], Department of Immunology, Institute for Frontier Life and Medical Science, Kyoto University, Kyoto, Japan [7)]

2-C-WS14-03-P

Investigation of B cell differentiation on atopic dermatitis model mice

◯ Moeko Ohara, Miyoko Matsushima, Hikaru Tsuzuki, Goki Inoue, Ko Iwaki, Yuki Hayashi, Teppei Yamashita, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University, Graduate School of Medicine

2-C-WS14-04-O/P

The contributions of IL-1 receptor accessory protein to T-cell-independent type 2 responses

◯ Mari Tenno, Tang Xuyang, Saori Fukao, Kei Haniuda, Daisuke Kitamura

Division of Cancer Cell Biology, Research Institute for Biomedical Sciences (RIBS) Tokyo University of Science

2-C-WS14-05-P

Study of the role of IL-9 in the T cell-independent immune responses

◯ Takumi Umezu, Kei Kato, Daisuke Kitamura

Research Institute for Biomedical Sciences, Tokyo University of sciences, Chiba, Japan

2-C-WS14-06-O/P

Differential roles of RUBCN isoforms in the fate decision of germinal center B cells

◯ Chaoyuan Tsai, Shuhei Sakakibara, Hitoshi Kikutani

Laboratory of Immune Regulation, Immunology Frontier Research Cnter, Osaka University, Osaka, Japan

2-C-WS14-07-P

Identification of a B cell intrinsic factor essential for germinal center differentiation

◯ Michelle Sue Jann Lee[1, 2)], Takeshi Inoue[3)], Wataru Ise[3)], Julia Matsuo-Dapaah[1)], James B. Wing[3)], Burcu Temizoz[2, 4)], Kouji Kobiyama[2, 4)], Ashwini Patil[5)], Anna Katharina Simon[6)], Jelena S. Bezbradica[6)], Tomohiro Kurosaki[3)], Ken J. Ishii[2, 3, 4)], Cevayir Coban[1, 2, 3)]

Division of Malaria Immunology, Department of Microbiology and Immunology, The Institute of Medical Science (IMSUT), The University of Tokyo, Tokyo, Japan[1)], International Vaccine Design Center (VDesC), The Institute of Medical Science (IMSUT), The University of Tokyo, Tokyo, Japan[2)], Immunology Frontier Research Center (IFReC), Osaka University, Osaka, Japan [3)], Division of Vaccine Science, Department of Microbiology and Immunology, The Institute of Medical Science (IMSUT), The University of Tokyo, Tokyo, Japan [4)], Combinatics Inc., Tokyo, Japan [5)], The Kennedy Institute of Rheumatology, NDORMS, University of Oxford, Oxford, UK[6)]

2-C-WS14-08-P

Bcl6 maintains germinal center B cells and regulates memory B cell function

◯ Qin Fan[1)], Lisa Fujimura[2)], Masahiko Hatano[1, 2)], Akemi Sakamoto[1, 2)]

Department of Biomedical Science, Graduate School of Medicine, Chiba University[1)], Biomedical Research Center, Chiba University[2)]

2-C-WS14-09-O/P

Isotype-specific metabolic requirements for survival of bone marrow plasma cells

◯ Akihiko Murata, Harumi Sasaki, Koji Tokoyoda

Division of Immunology, Department of Molecular and Cellular Biology, School of Life Science, Faculty of Medicine, Tottori University, Tottori, Japan

2-C-WS14-10-P

Isolation of anti-CD22 antibody that expands regulatory B cells

◯ Wang Long[1)], Shinji Kunitake[1)], Koji Atarashi[2)], Takeshi Tsubata[1)]

Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan[1)], Department of Microbiology and Immunology, School of Medicine, Keio University, Tokyo, Japan[2)]

2-C-WS14-11-P

Roles of inhibitory Fc receptor FcgammaRIIB on the peripheral B cell tolerance

◯ Hiroyuki Nishimura[1)], Noriko Iida[1)], Mareki Ohtsuji[1)], Yo Kodera[1)], Toshiyuki Takai[2)], Katsuko Sudo[3)], Sjef Verbeek[1)], Sachiko Hirose[1)]

Toin Human Science and Technology Center, Toin University of Yokohama, Yokohama, Japan[1)], Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan[2)], Tokyo Medical University, Tokyo, Japan[3)]

2-C-WS14-12-P

Recent advancement of TCR/BCR single-cell sequencing technology and its application in the repertoire study

◯ Hidetaka Tanno[1, 2)], Juyeon Park[2)], George Delidakis[2)], William Voss[2)], Gregory Ippolito[2)], George Georgiou[2)]

Tokyo Metropolitan Institute of Medical Science[1)], The University of Texas at Austin[2)]

2-C-WS14-13-P

Evaluation of immune responses induced by influenza vaccines using antibody repertoire analysis

◯ Kayoko Sato[1)], Hideki Asanuma[2)], Makoto Tsuiji[3)]

Department of Virology 3, National Institute of Infectious Diseases[1)], Center for Influenza and Respiratory Virus Research, National Institute of Infectious Diseases[2)], Department of Microbiology, Hoshi University School of Pharmacy and Pharmaceutical Sciences[3)]

2-C-WS14-14-P

Analysis of the contribution of VHH antibody framework regions to antigen binding

◯ Shinobu Kiyuna[1)], Akikazu Murakami[2)], Narutoshi Tsukahara[3)], Hideki Fujii[2)], Hidehiro Kishimoto[3)]

Department of Child Health and Welfare(Pediatrics), Graduate School of medicine, University of the Ryukyus, Okinawa, Japan.[1)], Department of Oral Microbiology, Graduate School of Biomedical Sciences, Tokushima University, Tokushima, Japan.[2)], Department of Immunology and Parasitology, Graduate School of medicine, University of the Ryukyus, Okinawa, Japan.[3)]

2-C-WS14-15-P

Stereotyped B-cell response that counteracts antigenic variation of influenza viruses

◯ Keisuke Tonouchi[1, 2)], Yu Adachi[1)], Saya Moriyama[1)], Yoshimasa Takahashi[1)]

Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Tokyo, Japan[1)], Department of Life Science and Medical Bioscience, Waseda University, Tokyo, Japan[2)]

2-C-WS14-16-P

Mechanisms for aberrant IgE production in MyD88-deficient mice

◯ Shunsuke Amano, Saori Fukao, Kei Haniuda, Wan Mengyao, Daisuke Kitamura

Research Institute for Biomedical Sciences

2-C-WS14-17-P

Serum neutralizing activity declines rapidly, but memory B cells persist for decades after cure of chronic hepatitis C virus infection

◯ Akira Nishio[1, 2)], Sharika Hasan[1)], Heiyoung Park[1)], Nana Park[1)], Jordan Salas[3)], Eduardo Salinas[4)], Lela Kardava[5)], Paul Juneau[6)], Nicole Frumento[3)], Guido Massaccesi[3)], Susan Moir[5)], Justin Bailey[3)], Arash Grakoui[4, 7)], Marc Ghany[1)], Barbara Rehermann[1)]

Liver Diseases Branch, National Institute of Diabetes and Digestive and Kidney Diseases, Maryland, USA[1)], Department of Gastroenterology and Hepatology, Osaka University Graduate School of Medicine, Osaka, Japan[2)], Department of Medicine, Johns Hopkins University School of Medicine, Maryland, USA[3)], Division of Microbiology and Immunology, Emory University School of Medicine, Georgia, USA[4)], Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, Maryland, USA[5)], NIH Library, National Institutes of Health, Maryland, USA[6)], Yerkes National Primate Research Center, Emory Vaccine Center, Georgia, USA[7)]

2-C-WS14-18-P

Identified pathogenic autoantibodies to induce the development of sialadenitis

◯ Mana Iizuka[1)], Satoru Takahashi[2, 3)], Isao Matsumoto[4)], Takayuki Sumida[4)], Akihiko Yoshimura[1)]

Department of Microbiology and Immunology, Keio University School of Medicine[1)], Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba[2)], Laboratory Animal Resource Center, University of Tsukuba[3)], Department of Internal Medicine, Faculty of Medicine, University of Tsukuba[4)]

2-C-WS14-19-P

Temporal maturation of neutralizing antibodies in COVID-19 convalescent individuals improves potency and breadth to circulating SARS-CoV-2 variants

◯ Saya Moriyama, Yu Adachi, Keisuke Tonouchi, Yoshimasa Takahashi
Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Tokyo, Japan

2-C-WS14-20-O/P

Dissecting temporal maturation of cross-neutralizing memory B cell responses against SARS-CoV-2 variants

◯ Yu Adachi, Saya Moriyama, Keisuke Tonouchi, Yoshimasa Takahashi
Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Tokyo, Japan

2-C-WS14-21-O/P

Glycan engineering of the SARS-CoV-2 receptor-binding domain elicits cross-neutralizing antibodies for SARS-related viruses

◯ Ryo Shinnakasu[1)], Shuhei Sakakibara[2)], Tomohiro Kurosaki[1)]
Laboratory of Lymphocyte Differentiation , WPI Immunology Frontier Research Center, Osaka University[1)], Laboratory of Immune Regulation, WPI Immunology Frontier Research Center, Osaka University[2)]

2-C-WS14-22-P

Comprehensive proteomics analysis of murine and human plasma for EBV-induced lymphoproliferative diseases

◯ Ryota Otsubo[1, 2)], Toshihiro Ito[3)], Ken-Ichi Imadome[4)], Teruhito Yasui[1, 2, 5)]
Laboratory of Infectious Diseases and Immunity, National Institutes of Biomedical Innovation, Health and Nutrition, Osaka, Japan[1)], Laboratory of Immunobiologics Evaluation, Center for Vaccine and Adjuvant Research, National Institutes of Biomedical Innovation, Health and Nutrition, Osaka, Japan[2)], Laboratory of Proteome Research, National Institutes of Biomedical Innovation, Health and Nutrition, Osaka, Japan[3)], Department of Advanced Medicine for Infections, National Center for Child Health and Development, Tokyo, Japan[4)], Laboratory of Pharmaceutical Integrated Omits, Department of Pharmaceutical Engineering, Facility of Engineering, Toyama Prefectural University, Toyama, Japan[5)]

December 9

WS15 T cell differentiation

Discussers: Kenji Ichiyama, Naoto Ishii, Minako Ito, Hidehiro Kishimoto, Takuma Misawa, Seiji Nagano, Masakatsu Yamashita, Koji Yasutomo

2-D-WS15-01-P

Epithelial cell-derived cytokine TSLP enhances fatty acid uptake in regulatory T cells to maintain homeostasis in the large intestine

◯ Tadamichi Kasuya, Shigeru Tanaka, Hiroshi Nakajima
Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University, Japan

2-D-WS15-02-P

Investigation of The Effect of Plasma Membrane Damage on The Differentiation and Function of Helper T Cells

◯ Masato Hirota, Hiroki Ishikawa
Immune Signal Unit, Okinawa Institute of Science and Technology Graduate University, Okinawa, Japan

2-D-WS15-03-P

Characterization of perforin-mediated cytotoxicity resistant cells

◯ Hidefumi Kojima
Division of Host Defense, Research Center for Advanced Medical Science Dokkyo Medical Univ. Sch. of Med.

2-D-WS15-04-O/P

Regeneration of CTLs derived from CAR-iPSCs on stimulation through CAR signal

◯ Seiji Nagano, Kyoko Masuda, Hiroshi Kawamoto
Labs of Immunology, Institute for Frontier Life and Medical Sciences, Kyoto University

2-D-WS15-05-P

ROLE OF SARS-CoV-2 SPIKE PROTEIN CROSS-REACTIVE CTL EPITOPES IN T CELL IMMUNITY

◯ Sharafudeen Abubakar[1)], Kosuke Miyauchi[2)], Masato Kubo[1, 2)]
Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Japan[1)], Laboratory for Cytokine Regulation, RIKEN Center for Integrative Medical Sciences, RIKEN, Japan.[2)]

2-D-WS15-06-O/P

Functional analysis of cytotoxic-like Eomes+ Th cells multiple sclerosis

◯ Ben Raveney, Wakiro Sato, Daiki Takewaki, Shinji Oki, Takashi Yamamura
National Institute of Neuroscience, NCNP, Kodaira, Tokyo

2-D-WS15-07-P

Vitamin C alters gene expression of CD8+ T cells through DNA demethylation

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

2-D-WS15-08-P

Impact of immune aging on naïve T cells in the non-human primate model

◯ Takuto Nogimori[1)], Yuji Masuta[1, 2)], Shokichi Takahama[1)], Yasuhiro Yasutomi[3)], Victor Appay[4)], Takuya Yamamoto[1, 2, 5)]
Laboratory of Immunosenescence, National Institutes of Biomedical Innovation, Health and Nutrition, Osaka, Japan[1)], Laboratory of Aging and Immune regulation, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan[2)], Tsukuba primate research center, National Institutes of Biomedical Innovation, Health and Nutrition, Ibaraki, Japan[3)], ImmunoConcept Laboratory, University of Bordeaux, Bordeaux, France[4)], Department of Virology and Immunology, Graduate School of Medicine, Osaka University, Osaka, Japan[5)]

2-D-WS15-09-P

Low dose hapten-induced allergic skin inflammation is aggravated in Themis overexpressing mice

◯ Masayuki Kitajima, Toshiyuki Okada, Harumi Suzuki
Depertment of Immunology and Pathology, Research Institute National Center for Global Health and Medicine

2-D-WS15-10-O/P

Withdwrawn

2-D-WS15-11-P

Elucidation of the mechanism of high affinity antibody production in immune organ transplantation

◯ Shingo Kawai[1)], Koji Hase[1)], Joe Inoue[2)]
Graduate School of Pharmaceutical Sciences, Keio University, Tokyo, Japan.[1)], Graduate School of Media and Governance, Keio University, Kanagawa, Japan.[2)]

2-D-WS15-12-P

Abcd1-deficient CD4$^+$ T cells display enhanced Th1-type responses

◯ Reina Maeda, Masashi Morita, Takanori So
Laboratory of Molecular Cell Biology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan

2-D-WS15-13-P

The Different Expression of Soluble and Membranous CD83 in CD4$^+$ T Cell Subsets

◯ Kohei Maeda, Toshihiro Tanioka, Rei Takahashi, Sanju Iwamoto
Department of Pharmacology, Toxicology, and Therapeutics, Division of Physiology and Pathology, Showa University School of Pharmacy, Tokyo, Japan

2-D-WS15-14-P

Structural studies of public TCR against SARS-CoV-2 peptide clarified the broad spectrum of the clonotype

◯ Masamichi Nagae[1, 2)], Shotaro Mori[1, 2)], Sho Yamasaki[1, 2)]
Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Osaka, Japan[1)], Laboratory of Molecular Immunology, Immunology Frontier Research Center (iFReC), Osaka University, Suita, Osaka Japan[2)]

2-D-WS15-15-P

SARS-CoV-2 spike L452R and Y453F variants confer escape from immunodominant HLA-A24-restricted T cell recognition

◯ Chihiro Motozono[1)], Hiroshi Hamana[2)], Keiko Udaka[3)], Hiroyuki Kishi[2)], Takamasa Ueno[1)]
Division of infection and immunity, Joint research center for Human Retrovirus infection, Kumamoto University, Kumamoto, Japan[1)], Department of Immunology, Faculty of Medicine, Academic Assembly, University of Toyama, Toyama, Japan[2)], Department of Immunology, Kochi University, Kochi, Japan[3)]

2-D-WS15-16-O/P

Tumor-infiltrating major CD8$^+$ T cell clones recognize both tumor cells and professional antigen-presenting cells in the tumor

◯ Haruka Shimizu[1)], Hiroyasu Aoki[1, 2)], Mikiya Tunoda[1, 3, 3)], Kouji Matusima[1)], Satoshi Ueha[1)], Shigeyuki Shichino[1)]
Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science[1)], Department of Hygiene, Graduate School of Medicine, The University of Tokyo[2)], Department of Medicinal and Life Sciences, Faculty of Pharmaceutical Sciences, Tokyo University of Science[3)]

2-D-WS15-17-O/P

Mutual inhibition between Prkd2 and Bcl6 controls T follicular helper cell differentiation

◯ Takuma Misawa[1)], Bruce Beutler[2)]
Laboratory for Immune Cell Systems, RIKEN Center for Integrative Medical Sciences, Kanagawa, Japan[1)], Center for the Genetics of Host Defense, UT Southwestern Medical Center, Dallas, TX, USA[2)]

2-D-WS15-18-P

Role of intestinal microbiota in DNA methylation-mediated T cell senescence and tumorigenesis

◯ Hiroko Nakatsukasa, Akihiko Yoshimura
Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan

2-D-WS15-19-O/P

Dietary factors facilitate the differentiation into follicular helper T cells in Peyer's patches

◯ Kisara Muroi, Daisuke Takahashi, Koji Hase
Graduate School of Pharmaceutical Science, Keio University, Tokyo, Japan

2-D-WS15-20-P

A novel mouse model for the functional analysis and the fate mapping of Tfh cells

◯ Yuki Tai[1)], Shuhei Ogawa[2)], Yohsuke Harada[1)]
Laboratory of Pharmaceutical Immunology, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Chiba, Japan[1)], Division of Integrated Research, Research Institute for Biomedical Sciences, Tokyo University of Science, Chiba, Japan[2)]

2-D-WS15-21-P

Identification of conserved SARS-CoV-2 spike epitopes that expand public cTfh clonotypes in mild COVID-19 patients

◯ Xiuyuan Lu[1)], Yuki Hosono[1, 2, 3)], Shigenari Ishizuka[1, 2)], Eri Ishikawa[1, 2)], Atsushi Kumanogoh[3, 4, 5, 6)], Yoshimasa Takahashi[7)], Sho Yamasaki[1, 2, 6, 8)]
Laboratory of Molecular Immunology, Immunology Frontier Research Center, Osaka University, Suita, Japan[1)], Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Japan[2)], Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University, Suita, Japan[3)], Department of Immunopathology, Immunology Frontier Research Center, Osaka University, Suita, Japan[4)], Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Suita, Japan[5)], Center for Infectious Disease Education and Research, Osaka University (CiDER), Suita, Japan[6)], Department of Immunology, National Institute of Infectious Diseases, Tokyo, Japan[7)], Division of Molecular Design, Research Center for Systems Immunology, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan[8)]

2-D-WS15-22-P

Bob1 regulates T follicular helper cells to establish specific humoral immunity

◯ Masahiro Yanagi[1, 2)], Ippei Ikegami[1)], Taiki Sato[1)], Shiori Kamiya[1)], Ryuta Kamekura[1)], Hirofumi Chiba[2)], Shingo Ichimiya[1)]
Department of Human Immunology, Research Institute for Frontier Medicine, Sapporo Medical University School of Medicine[1)], Department of Respiratory Medicine and Allergology, Sapporo Medical University School of Medicine[2)]

2-D-WS15-23-O/P

Cooperative and distinct function of SRC2 and SRC3 in Th17 cell development

◯ Kenji Ichiyama[1)], Shimon Sakaguchi[1)], Chen Dong[2)]
Laboratory of Experimental Immunology, Immunology Frontier Research Center, Osaka University, Suita, Osaka, Japan[1)], Institute for Immunology, Tsinghua University, Beijing, P.R. China.[2)]\

2-D-WS15-24-P

Th17-cell mediated immune response in the development of periodontitis

◯ Jun-ichi Nagao[1, 2)], Sari Kishikawa[1)], Kenji Toyonaga[1)], Kanae Negoro-Yasumatsu[1)], Sonoko Tasaki[1)], Yoshihiko Tanaka[1, 2)]
Section of Infection Biology, Department of Functional Bioscience, Fukuoka Dental Collage.[1)], Oral Medicine Research Center, Fukuoka Dental College[2)]

2-D-WS15-25-P

T-bet represses collagen-induced arthritis by suppressing Th17 lineage commitment through inhibition of RORγt expression and function

◯ Masaru Shimizu, Yuya Kondo, Reona Tanimura, Kotona Furuyama, Hiroto Tsuboi, Isao Matsumoto, Takayuki Sumida
Department of Internal Medicine, Faculty of Medicine, University of Tsukuba, Japan.

2-D-WS15-26-O/P

ACC1-expressing pathogenic T helper 2 cell populations facilitate lung and skin inflammation

◯ Takahiro Nakajima[1)], Toshio Kanno[1)], Toshinori Nakayama[2)], Yusuke Endo[1, 3)]
Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, Chiba, Japan[1)], Department of Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan[2)], Department of Omics Medicine, Graduate School of Medicine, Chiba University, Chiba, Japan[3)]

2-D-WS15-27-P

Eomesodermin in $CD8^+$ CTLs induces the expression of Nkg7 which specifically promotes perforin/granzyme-pathway of cytolysis by optimizing exocytosis of lytic granules

Kazuya Iwabuchi[1)], Yuki Morikawa[1)], Hitoshi Kondo[1)], Noriko Nemoto[2)], ◯ Koji Eshima[1)]
Department of Immunology, Kitasato University School of Medicine [1)], Research Center for Biological Imaging, Kitasato University School of Medicine[2)]

December 9

WS16 Advances in Immunological Signaling in Tumor Microenvironment

Discussers: Keitaro Fukuda, Emiko Mizoguchi, Hozumi Motohashi, Shinichiro Motohashi, Dean Thumkeo, Heiichiro Udono, Hideyuki Yanai

2-E-WS16-01-P

Myeloma microenvironments induce tolerogenic phenotypic behaviors in dendritic cells

◯ Mariko Ishibashi, Rimpei Morita
Department of Microbiology and Immunology, Nippon Medical School

2-E-WS16-02-P

Subcritical water extracts from *Agaricus blazei* Murrill's mycelia and fruiting bodies Inhibit the expression of immune checkpoint molecules and Axl receptor

◯ Hajime Kobori[1)], Masaaki Toda[2)], Corina N. D'Alessandro-Gabazza[2)], Esteban C. Gabazza[2)]
Iwade Research Institute of Mycology Co., Ltd, Tsu, Mie, Japan[1)], Department of Immunology, Mie University School of Medicine, Tsu, Mie, Japan[2)]

2-E-WS16-03-O/P

Clec4A4 acts as immune checkpoint molecule expressed on conventional dendritic cells to suppress tumor immunity

◯ Tomofumi Uto, Tomohiro Fukaya, Hideaki Takagi, Yotaro Nishikawa, Moe Tominaga, Katsuaki Sato
Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan

2-E-WS16-04-P

Anti-tumor immunotherapy using CCL19-expressing allogeneic mesenchymal stromal cells

◯ Yuichi Iida, Mamoru Harada
Department of Immunology, Faculty of Medicine, Shimane University

2-E-WS16-05-O/P

AIM2 regulates anti-tumor immunity and serves as a therapeutic target for melanoma

Tomonori Yaguchi[1)], Yutaka Kawakami[1)], Anastasia Khvorova[2)], Katherine Fitzgerald[3)], John Harris[4)], ◯ Keitaro Fukuda[4, 5)], Ken Okamura[4)], Rebecca Riding[4)], Xueli Fan[4)], Sean McCauley[6)], Jeremy Luban[6)]
Division of Cellular Signaling, Institute for Advanced Medical Research, Keio University School of Medicine, Tokyo, Japan[1)], RNA Therapeutics Institute, University of Massachusetts Medical School, Worcester, MA[2)], Department of Infectious Diseases and Immunology, University of Massachusetts Medical School[3)], Department of Dermatology, University of Massachusetts Medical School, Worcester, MA[4)], Department of Dermatology, Keio University School of Medicine, Tokyo, Japan[5)], Program in Molecular Medicine, University of Massachusetts Medical School, Worcester, MA[6)]

2-E-WS16-06-O/P

PGE_2-EP2/EP4 signaling mediates immunosuppresion in tumor microenvironment through the facilitation of mregDC-Treg axis

◯ Dean Thumkeo, Shuh Narumiya
Department of Drug Discovery Medicine, Kyoto University Graduate School of Medicine

2-E-WS16-07-P

Blocking PGE2 improves tumor microenviroment to reinforce anti-PD-1 therapy in lung adenocarcinoma model

◯ Miho Tokumasu, Mikako Nishida, Ikuru Kudo, Heiichiro Udono
Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University

2-E-WS16-08-P

The immune inhibitory receptor LILRB4/gp49B reduces anti-tumor exosomal miRNA levels in plasma through promoting MDSC-mediated immunosuppression

◯ Sakiko Kumata[1, 2)], Mei-Tzu Su[1)], Shota Endo[1)], Yoshinori Okada[2)], Toshiyuki Takai[1)]
Department of Experimental Immunology, Institute of Development, Aging and Cancer, Tohoku University[1)], Department of Thoracic Surgery, Institute of Development, Aging and Cancer, Tohoku University[2)]

2-E-WS16-09-O/P

GSTA4 regulates responsiveness to anti-tumor immune responses in melanoma cells

◯ Sisca Ucche, Yoshihiro Hayakawa
Section of Host Defences, Institute of Natural Medicine, University of Toyama

2-E-WS16-10-O/P

Withdrawn

2-E-WS16-11-O/P

Role of a putative cyclin-binding domain in nuclear localization sequence of CHI3L1 in colonic epithelial cells

◯ Emiko Mizoguchi[1, 2], Toshiyuki Okada[1, 3], Atsushi Mizoguchi[1]
Kurume University School of Medicine[1], Brown University Alpert Medical School[2], Institute of Life Science, Kurume University[3]

2-E-WS16-12-P

The induction of cell surface ILDR2 in murine SCC tumor cells regulates antitumor T-cell responses

◯ Yuto Nagatomo, Chenyang Zhang, Amrita Widyagarini,, Miyuki Azuma
Department of Molecular Immunology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University

2-E-WS16-13-P

Manipulation of tumor microenvironment by cytokine-gene transfection elicits therapeutic effects in a visceral tumor model

◯ Shunichi Watanabe[1], Eiji Yuba[2], Shingo Hatoya[1], Toshio Inaba[1], Kikuya Sugiura[1]
Department of Advanced Pathobiology, Graduate School of Life and Environmental Sciences, Osaka Prefecture University, Izumisano City, Osaka, Japan[1], Department of Applied Chemistry, Graduate School of Engineering, Osaka Prefecture University, Sakai City, Osaka, Japan[2]

2-E-WS16-14-O/P

Lipid-orchestrated acceleration of Epstein-Barr virus-induced B-cell lymphoma via the secreted phospholipase A2-mediated modification of tumor-derived extracellular vesicles

◯ Kudo Kai[1, 2], Yoshimi Miki[3], Joaquim Carreras[4], Yamamoto Kei[5], Higuchi Hiroshi[6], Morita Shin-ya[7], Inoue Asuka[8], Aoki Junken[9], Nakamura Naoya[4], Murakami Makoto[3], Kotani Ai[1, 2]
Department of Innovative Medical Science, Tokai University School of Medicine; Isehara, Japan[1], Division of Hematological Malignancy, Institute of Medical Sciences, Tokai University, Isehara, Japan[2], Laboratory of Microenvironmental Metabolic Health Sciences, Center for Disease Biology and Integrative Medicine, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan[3], Department of Pathology, Tokai University School of Medicine, Isehara, Japan[4], Division of Bioscience and Bioindustry, Graduate School of Technology, Industrial and Social Sciences, Tokushima University, Tokushima, Japan[5], Center for Cancer Immunology and Cutaneous Biology Research Center, Center for Cancer Research, Massachusetts General Hospital and Harvard Medical School, Boston, MA, USA[6], Department of Pharmacy, Shiga University of Medical Science Hospital, Otsu, Japan[7], Department of Pharmaceutical Sciences, Tohoku University, Sendai, Japan[8], Department of Health Chemistry, Graduate School of Pharmaceutical Sciences, University of Tokyo, Tokyo, Japan[9]

2-E-WS16-15-P

Trastuzumab, a HER2 targeting-classic monoclonal antibody Immunotherapy Modulates Cytotoxicity towards Cholangiocarcinoma (CCA) via Multiple Mechanism

◯ Jutatip Panaampon[1], Seiji Okada[2]
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2-E-WS16-16-P

Anti-tumor abscopal effect on CT26 tumor in mice induced by electrical discharge plasma irradiation on normal tissue

◯ Ryo Ono[1], Reima Jinno[1], Atsushi Komuro[1], Hideyuki Yanai[2]
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2-E-WS16-17-P

A novel in vivo model for functional evaluation of immune checkpoint inhibitors (ICI) using humanized NOG-FcgR KO mice

◯ Ikumi Katano, Asami Hanazawa, Takuya Yamaguchi, Ryoji Ito, Takeshi Takahashi
CIEA

2-E-WS16-18-P

Activation of STAT1 signaling pathway in the tumor microenvironment is crucial for the induction of anti-tumor effector cells

◯ Weidong Shen[1], Xiangdong Wang[1], Shunsuke Shichi[1, 2], Saori Kimura[1, 2], Ko Sugiyama[1, 2], Akinobu Taketomi[2], Hidemitsu Kitamura[1]
Division of Functional Immunology, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan[1], Department of Gastroenterological Surgery I, Graduate School of Medicine, Hokkaido University, Sapporo, Japan[2]

2-E-WS16-19-P

Establishment of a molecular imaging system to evaluate the T cell exhaustion releasing function of human PD-1/PD-L1 antibodies

◯ Wataru Nishi[1, 2], Ei Wakamatsu[1], Masae Furuhata[1], Hiroko Toyota[1], Hiroaki Machiyama[1], Hitoshi Nishijima[1], Arata Takeuchi[1], Miyuki Azuma[3], Tadashi Yokosuka[1]
Department of Immunology, Tokyo Medical University, Tokyo, Japan[1], Department of Thoracic Surgery, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan[2], Department of Molecular Immunology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan[3]

2-E-WS16-20-P

HVJ-E and OX40 agonist antibody mediate systemic anti-tumor immune response

◯ Airi Ishibashi, Keisuke Nimura

Division of Gene Therapy Science, Osaka University Graduate School of Medicine, Suita, Osaka, Japan.

2-E-WS16-21-O/P

DNAM-1 promotes inflammation-driven tumor development via enhancing IFN-γ production

◯ Yuho Yuho Nakamura-Shinya[1, 2)], Akiko Iguchi-Manaka[1)], Rikito Murata[1, 2)], Kazuki Sato[1, 3)], Kazumasa Kanemaru[1)], Akira Shibuya[1, 3)], Kazuko Shibuya[1, 3)]

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2-E-WS16-22-P

Anti-angiogenic effect of fucoidan-mix AG via improvement of tumor microenvironment in a mouse melanoma model

Juneha Bak[1)], Hayato Nakano[2)], Shugo Takeuchi[3)], Hideaki Takeuchi[4)], Daisuke Tachikawa[5, 6)], ◯ Yoshiyuki Miyazaki[1, 6)]

Faculty of Agriculture, Kyushu University, Fukuoka, Japan[1)], Ventuno Co., LTD., Fukuoka, Japan[2)], Kaisou-science no kai Co., LTD., Tokyo, Japan[3)], Kamerycah, Inc., CA, United States[4)], Wakamiya Hospital, Oita, Japan[5)], NPO Research Institute of Fucoidan, Fukuoka, Japan[6)]

2-E-WS16-23-P

CD8T cell dependent tumor vessel normalization by metformin and anti-PD-1 antibody combination therapy

◯ Ikuru Kudo, Zhang Xingda, Mikako Nishida, Heiichiro Udono

Department of Immunology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Science

2-E-WS16-24-P

Time course analysis of immunometabolism by continuous glucose measurement *in vitro*

◯ Kanae Sawamura

DF Group 6, Development Department, Advanced Technology Development Center, PHC Corporation

December 10

WS17 Immune responses to pathogen infection

Discussers: Manabu Ato, Hajime Hisaeda, Goro Matsuzaki, Sayuri Nakamae, Miwa Sasai, Manabu Taura, Fabio Seiti Yamada Yoshikawa

3-A-WS17-01-P

Multi-parametric analysis of extracellular particles during viral infection by high resolution flow cytometry

◯ Tomoya Hayashi[1, 2, 3)], Hideo Negishi[1, 2)], Kouji Kobiyama[1, 2, 3)], Burcu Temizoz[1, 2, 3)], Kou Hioki[1, 2, 3)], Cevayir Coban[2, 4)], Ken Ishii[1, 2, 3)]

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3-A-WS17-02-P

Mycobacterial protein PE_PGRS30 induces apoptosis via interacting prohibitin 2

◯ Kazunori Matsumura, Satoshi Takaki

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3-A-WS17-03-O/P

Dectin-1/IL-15 pathway affords protection against acute invasive aspergillosis by regulating NK cell survival

◯ Fabio Yoshikawa[1)], Maki Wakatsuki[1)], Kosuke Yoshida[1)], Rikio Yabe[1)], Shota Torigoe[2)], Sho Yamasaki[2)], Glen Barber[3)], Shinobu Saijo[1)]

Division of Molecular Immunology, Medical Mycology Research Center, Chiba University, Chiba, Japan[1)], Department of Molecular Immunology, Research Institute for Microbial Diseases, Osaka University, Suita, Osaka, Japan[2)], Department of Cell Biology, University of Miami Miller School of Medicine, Miami, Florida, USA[3)]

3-A-WS17-04-P

Low molecular compound-induced anti-viral response via STING

◯ Yusuke Wada, Hideo Negishi, Ken Ishii

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3-A-WS17-05-P

Lyn kinase signaling promotes inflammasome activation in macrophages infected with *Listeria monocytogenes*

◯ Hideki Hara[1)], Gabriel Núñez[2)], Akihiko Yoshimura[1)]

Keio University School of Medicine, Tokyo, Japan[1)], University of Michigan Medical School, Ann Arbor, Michigan, USA[2)]

3-A-WS17-06-P

The effect of the deletion of the mycobacterial virulence factor Zmp1 on protective immunity

◯ Masayuki Umemura[1, 2, 3)], Sohkichi Matsumoto[4)], Tomomi Kurane[1, 2)], Giichi Takaesu[1, 2)], Goro Matsuzaki[1, 2)]

Tropical Biosphere Research Center, University of the Ryukyus, Okinawa, Japan[1)], Department of Host Defense, Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan[2)], Advanced Medical Research Center, Faculty of Medicine, University of the Ryukyus, Okinawa, Japan[3)], Department of Bacteriology, Graduate School of Medical and Dental Sciences, Niigata University, Niigata, Japan[4)]

3-A-WS17-07-O/P

APOBEC3A binds to human genomic DNA and regulates transcription from interferon stimulated response elements

◯ Manabu Taura[1, 2)], Akiko Iwasaki[2, 3)]

Laboratory of Bioresponse Regulation, Graduate School of Pharmaceutical Sciences, Osaka University, Suita, Osaka, Japan.[1)], Department of Immunobiology, Yale University School of Medicine, New Haven, CT, USA.[2)], Howard Hughes Medical Institute, Chevy Chase, MD, USA.[3)]

3-A-WS17-08-P

Lipopolysaccharide preconditioning augments phagocytosis of malaria-parasitized red blood cells by bone marrow-derived macrophages in the liver, thereby increasing the murine survival after *Plasmodium yoelii* infection

◯ Takeshi Ono[1)], Yoko Yamaguchi[1)], Manabu Kinoshita[2)]

Department of Global Infectious Diseases and Tropical Medicine, National Defense Medical College[1)], Department of Immunology and Microbiology, National Defense Medical College[2)]

3-A-WS17-09-P

Inflammatory mediators are increased in vascular endothelial cells in response to *Streptococcus sanguinis*

◯ Tomomi Hashizume-Takizawa, Tomoko Kurita-Ochiai, Hidenobu Senpuku

Department of Microbiology and Immunology, Nihon University School of Dentistry at Matsudo, Chiba, Japan

3-A-WS17-10-P

Analysis of sialylated glycolipids and N-glycans between Theiler's murine encephalomyelitis virus binding and non-binding cells

◯ Kazuya Takeda, Tomonori Kaifu, Akira Nakamura

Division of Immunology, Faculty of Medicine, Tohoku Medical and Pharmaceutical University

3-A-WS17-11-O/P

Potential roles of IgA in the central nervous system in a viral model of multiple sclerosis

◯ Fumitaka Sato[1)], Seiichi Omura[1)], Ah-Mee Park[1)], Sundar Khadka[1)], Yumina Nakamura[1)], Aoshi Katsuki[1)], Kazuto Nishio[2)], Felicity N.E. Gavins[3)], Ikuo Tsunoda[1)]

Department of Microbiology, Kindai University Faculty of Medicine, Osaka, Japan[1)], Department of Genome Biology, Kindai University Faculty of Medicine, Osaka, Japan[2)], Department of Biosciences, College of Health and Life Sciences, Brunel University London, Uxbridge, United Kingdom[3)]

3-A-WS17-12-P

Identification of the novel neuro-immune interaction during viral infection in the olfactory system

◯ Riho Saito[1)], Tomohiko Okazaki[2)]

Laboratory of Molecular Biology, Faculty of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan.[1)], Laboratory of Molecular Cell Biology, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan. [2)]

3-A-WS17-13-P

3D CUBIC-cleared brain during experimental cerebral malaria

◯ Julia Matsuo-Dapaah[1, 2)], Michelle Sue Jann Lee[1)], Ken J. Ishii[2, 3, 4, 5)], Kazuki Tainaka[6, 7)], Cevayir Coban[1, 2, 4, 5)]

Division of Malaria Immunology, Department of Microbiology and Immunology, The Institute of Medical Science (IMSUT), The University of Tokyo, Tokyo, Japan [1)], Graduate School of Medicine, The University of Tokyo, Tokyo, Japan[2)], Division of Vaccine Science, Department of Microbiology and Immunology, The Institute of Medical Science (IMSUT), The University of Tokyo, Tokyo, Japan [3)], International Vaccine Design Center, The Institute of Medical Science (IMSUT), The University of Tokyo, Tokyo, Japan [4)], Immunology Frontier Research Center (IFReC), Osaka University, Osaka, Japan[5)], Department of System Pathology for Neurological Disorders, Center for Bioresources, Brain Research Institute, Niigata University, Niigata, Japan[6)], Laboratory for Synthetic Biology, RIKEN Center for Biosystems Dynamics Research, Osaka, Japan[7)]

3-A-WS17-14-O/P

Recombinant BCG-prime and DNA-boost vaccination confers enhanced protection against Mycobacterium kansasii in mice

◯ Shihoko Komine-Aizawa[1)], Satoru Mizuno[2)], Kazuhiro Matsuo[2)], Takahiro Namiki[3)], Satoshi Hayakawa[1)], Mitsuo Honda[1)]

Division of Microbiology, Department of Pathology and Microbiology, Nihon University School of Medicine[1)], Japan BCG Laboratory[2)], Nihon University School of Medicine[3)]

3-A-WS17-15-P

The evaluation of a new recombinant BCG vaccine in Cynomolgus Macaque model

◯ Natsuko Yamakawa, Yasuhiro Yasutomi

Tsukuba Primate Research Center, National Institutes of Biomedical Innovation, Health and Nutrition, Ibaraki, Japan

3-A-WS17-16-P

Investigation of microbiome composition in pediatric acute appendicitis

◯ Tsubasa Aiyoshi[1, 2)], Tomo Kakihara[2, 3)], Eiichiro Watanabe[4)]

Department of Pediatric Surgery, Faculty of Medicine, University of Tsukuba[1)], Laboratory for Microbiome Sciences, RIKEN Center for Integrative Medical Sciences[2)], Department of Pediatric Surgery, Faculty of Medicine, University of Tokyo[3)], Division of Surgery, National Center for Child Health and Development[4)]

3-A-WS17-17-O/P

Induction of IgE-mediated hypersensitivity by membrane vesicles derived from *Staphylococcus aureus*

◯ Krisana Asano[1)], Kouji Narita[2)], Akio Nakane[3)]

Department of Microbiology and Immunology, Hirosaki University Graduate School of Medicine, Aomori, Japan[1)], Institute for Animal Experimentation, Hirosaki University Graduate School of Medicine, Aomori, Japan[2)], Department of Biopolymer and Health Science, Hirosaki University Graduate School of Medicine, Aomori, Japan[3)]

3-A-WS17-18-P

Development of phage therapies against *Clostridioides difficile*

◯ Kosuke Fujimoto[1, 2)], Satoshi Uematsu[1, 2)]

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3-A-WS17-19-P

Microbiota-derived acetic acid suppresses Type 1 diabetes via a G-protein-coupled receptor on CD8$^+$ Tregs

◯ Chikako Shimokawa[1)], Tadashi Takeuchi[2, 3)], Tamotsu Kato[2, 3)], Takashi Kanaya[2, 3)], Hiroshi Ohno[2, 3, 4)], Hajime Hisaeda[1)]

Department of Parasitology, National Institute of Infectious Diseases, Tokyo, Japan[1)], Laboratory for Intestinal Ecosystem, RIKEN Center for Integrative Medical Sciences, Kanagawa, Japan[2)], Immunobiology Laboratory, Graduate School of Medical Life Science, Yokohama City University, Kanagawa, Japan[3)], Kanagawa Institute of Industrial Science and Technology, Kanagawa, Japan[4)]

3-A-WS17-20-P

The effect of resistant starch for type2 immune responses in mice

◯ Motoko Morimoto

Miyagi University School of Food Industrial Sciences, Sendai, Miyagi

3-A-WS17-21-O/P

mRNA contained lipid nanoparticles are promising malaria vaccine candidate: liver-predominant induction of cellular immunity against liver-stage malaria

◯ Sayuri Nakamae[1)], Satoshi Miyagawa[1)], Koki Ogawa[2)], Jiun-Yu Jian[1)], Takeshi Annoura[3)], katsuyuki Yui[4, 5)], Kenji Hirayama[5)], Shigeru Kawakami[2)], Shusaku Mizukami[1)]

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3-A-WS17-22-O/P

Adjuvant-mediated immunoprophylaxis against viral infection

◯ Jun Tsuchida[1)], Kouji Kobiyama[1)], Masamitsu Asaka[2)], Daichi Utsumi[2)], Yasuhiro Yasutomi[2)], Ken Ishii[1)]

Division of vaccine science, Department of microbiology and immunology, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan[1)], Laboratory of Immunoregulation and Vaccine Research, Tsukuba Primate Research center, Nation Institutes of Biomedical Innovation, Health and Nutrition, Ibaraki, Japan[2)]

December 10

WS18 Innate lymphocytes

Discussers: Takashi Ebihara, Shin-Ichi Inoue, Kazuya Iwabuchi, Tsuyoshi Kiniwa, Yuki Kinjo, Kazuyo Moro, Yasutaka Motomura, Shinichiro Sawa, Yoshitaka Shirasaki

3-B-WS18-01-O/P

γδ T cells regulate differentiation of antigen specific CD4$^+$ T cells during malaria

◯ Shin-Ichi Inoue[1)], Ganchimeg Bayarsaikhan[1)], Jiun-Yu Jian[1)], Ntita Mbaya[1)], Sanjaadorj Tsogtsaikhan[1)], Malou Macalinao[2)], Kazumi Kimura[1)], Katsuyuki Yui[1, 2, 3)]

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3-B-WS18-02-O/P

Gr-1$^+$ cells influence on the differentiation of follicular helper Natural killer T cells

◯ Yasuhiro Kamii[1, 2)], Koji Hayashizaki[1, 3)], Toshio Kanno[4)], Yusuke Endo[4)], Yoshimasa Takahashi[3)], Yuki Kinjo[1, 3, 5)]

Department of Bacteriology, The Jikei University School of Medicine, Tokyo, Japan[1)], Division of Respiratory Diseases, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan[2)], Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases, Tokyo, Japan[3)], Department of Frontier Research and Development, Laboratory of Medical Omics Research, Kazusa DNA Research Institute, Chiba, Japan[4)], Intelligent Network for Infection Disease, Tohoku University Graduate School of Medicine, Miyagi, Japan[5)]

3-B-WS18-03-O/P

Regulatory role of Protein phosphatase 2A on T-bet expression and effector function of NK cell

◯ Yui Yamamae, Yoshihiro Hayakawa

Section of Host Defences, Institute of Natural Medicine, University of Toyama, Toyama, Japan

3-B-WS18-04-O/P

The role of Innate lymphoid cells in endometriosis

◯ Kentaro Kubota[1, 2)], Tsuyoshi Kiniwa[1)], Kazuyo Moro[1, 2)]

Laboratory for Innate Immune Systems, Department of Immunology and Microbiology, Osaka University Graduate School of Medicine, Osaka, Japan[1)], Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Sciences (IMS), Kanagawa , Japan[2)]

3-B-WS18-05-O/P

NFIL3 is an important switcher controlling functional specification of ILC2 and ILC1

◯ Ameer Ali Bohio[1)], Kosuke Miyauchi[2)], Masato Kubo[1, 2)]

Division of Molecular Pathology, Research Institute for Biomedical Science, Tokyo University of Science, Japan[1)], Laboratory for Cytokine Regulation, RIKEN Center for Integrative Medical Sciences (IMS), RIKEN Yokohama Institute, Japan[2)]

3-B-WS18-06-O/P

Single-cell analysis of gene expression transition of ILC2 associated with the exertion of secretory function

◯ Yoshitaka Shirasaki[1)], Yasutaka Motomura[2)], Takashi Kamatani[3)], Hiroki Kabata[4)], Koichi Fukunaga[4)], Kazuyo Moro[2)]

Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan[1)], Graduate School of Medicine, Osaka University, Osaka, Japan[2)], Graduate School of Sciences, The University of Tokyo, Tokyo, Japan[3)], Department of Medicine Keio University School of Medicine, Tokyo, Japan[4)]

3-B-WS18-07-O/P

Serotonin-producing mast cells suppress ILC2 function in fungus-induced asthma

◯ Kiniwa Tsuyoshi[1)], Moro Kazuyo[1, 2)]

Laboratory for Innate Immune Systems, RIKEN Center for Integrative Medical Sciences (IMS)[1)], Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center[2)]

3-B-WS18-08-O/P

Role of ILC2s in the recurrent nasal polyposis of eosinophilic chronic rhinosinusitis

◯ Yasutaka Motomura[1, 2, 3)], Kazuyo Moro[1, 2, 3, 4)]

Laboratory for Innate Immune Systems, Department of Microbiology and Immunology, Graduate School of Medicine, Osaka University[1)], Laboratory for Innate Immune Systems, Osaka University Immunology Frontier Research Center (iFReC)[2)], Laboratory for Innate Immune Systems, RIKEN IMS[3)], Laboratory for Innate Immune Systems, Graduate School of Frontier Biosciences, Osaka University[4)]

3-B-WS18-09-O/P

Characterization and composition of innate lymphoid cells in pediatric and adult allergic patients

◯ Yuko Okuyama[1)], Tomomi Musha[1)], Mizuna Fujita[1)], Takeshi Kawabe[1)], Atsuko Asao[1)], Rina Morishita[1)], Toshiya Takahashi[2)], Maki Ozawa[2)], Kenshi Yamasaki[2)], Yohei Watanabe[3)], Satoshi Horino[4)], Yuji Saita[5)], Yuji Nagano[5)], Masaki Abe[5)], Setsuya Aiba[2)], Katsushi Miura[4)], Naoto Ishii[1)]

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3-B-WS18-10-P

TCR signaling is required to different extents for embryonic versus postnatal development of $V\gamma5^+$ T cells

◯ Koichi Sudo[1)], Kazuhiko Takahara[1)], Yuyo Ka[2)]

Laboratory of Immunobiology, Graduate School of Biostudies, Kyoto University, Kyoto, Japan[1)], Central Institute for Experimental Animals, Kanagawa, Japan[2)]

3-B-WS18-11-P

Adipose iNKT cell interacting with macrophage regulates obesity-associated inflammation

◯ Masashi Satoh, Kazuya Iwabuchi

Department of Immunology, Kitasato University School of Medicine

3-B-WS18-12-P

The role of OX40 signaling in type I NKT cells

◯ Honoka Aoshima[1, 2)], Kanako Shimizu[1)], Shin-ichiro Fujii[3)]

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3-B-WS18-13-P

Recurrence of experimental autoimmune uveoretinitis (EAU) induced by administration of Staphylococcal Enterotoxin B was ameliorated by NKT-cell activation

◯ Chizuru Oowa[1)], Masashi Satoh[1, 2)], Kazuya Iwabuchi[1, 2)]

Program in Cellular Immunology, Kitasato University Graduate School of Medical Sciences[1)], Department of immunology, Kitasato University School of Medicine[2)]

3-B-WS18-14-P

Liver X receptors regulate natural killer T cell population and hepatic antitumor activity in mice

◯ Kaori Endo-Umeda[1)], Hiroyuki Nakashima[2)], Shota Toyoshima[3)], Shihoko Komine-Aizawa[4)], Shuhji Seki[2)], Makoto Makishima[1)]

Division of Biochemistry, Department of Biomedical Sciences, Nihon University School of Medicine, Tokyo, Japan[1)], Department of Immunology and Microbiology, National Defense Medical College, Saitama, Japan[2)], Allergy and Immunology Research Project Team, Center for Medical Education, Center for Allergy, Nihon University School of Medicine, Tokyo, Japan[3)], Division of Microbiology, Department of Pathology and Microbiology, Nihon University School of Medicine, Tokyo, Japan[4)]

3-B-WS18-15-P

NKT-mediated vaccine induces affinity maturation of BCR and supply antibody dependent protection against *Streptococcus pneumoniae*

◯ Koji Hayashizaki[1, 2)], Shogo Takatsuka[3)], Yasuhiro Kamii[1)], Makoto Tsuiji[4)], Masato Kubo[5)], Yoshimasa Takahashi[2)], Yuki Kinjo[1, 2, 6)]

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3-B-WS18-16-P

Hepatic niche leads to aggressive NK-cell leukemia proliferation

◯ Kazuaki Kameda[1, 2)], Yuji Miyatake[1)], Ai Kotani[1)]

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3-B-WS18-17-P

The Ccr4-Not deadenylase complex controls antitumor NK cell activity

◯ Megumi Tatematsu[1)], Shinichiro Sawa[2)], Koichi Ikuta[3)], Takashi Ebihara[1)]

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3-B-WS18-18-P

Activation-induced cell death of ILC2s confers protection against chronic allergic inflammation

◯ Toshiki Yamada[1, 2)], Megumi Tatematsu[2)], Takashi Ebihara[2)]

Department of Otorhino- laryngology- Head and Neck Surgery[1)], Department of Medical Biology[2)]

3-B-WS18-19-P

Local cellular crosstalk restricts innate lymphoid cell population size in the small intestine

◯ Yuta Yamamoto[1, 2)], Kazuki Yoshizawa[1, 2)], Hideki Sanjo[1)], Shinsuke Taki[1)]

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3-B-WS18-20-P

Galactosylated, nonfucosylated intravenous immunoglobulin with therapeutic potential in autoimmune diseases

◯ Yusuke Mimura
Yamaguchi Ube Medical Center

3-B-WS18-21-P

IL-22receptor produced by probiotic lactic acid bacteria may promote β-Defensin 3 productions in the oral mucosa

◯ Ryoki Kobayashi, Hidenobu Sempuku
Department of Infection and Immunology, Nihon University School of Dentistry at Matsudo, Matuso, Chiba

3-B-WS18-22-P

Histone modification enzyme SET domain bifurcated 2 (Setdb2) contributes to the pathogenesis of acute respiratory distress syndrome (ARDS) in murine model

◯ Shota Sonobe[1)], Masahiro Kitabatake[1)], Atsushi Hara[1)], Makiko Konda[1)], Ryutaro Furukawa[1)], Tomoko Nishimura[1)], Noriko Ouji-Sagaeshima[1)], Shiki Takamura[2)], Toshihiro Ito[1)]
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December 10

WS19 Cytokines and Chemokines

Discussers: Tatsuma Ban, Yoichiro Iwakura, Masaaki Kawano, Masato Kubo, Takumi Maruhashi, Kouji Matsushima, Akiko Nakai, Shinobu Sajo

3-C-WS19-01-O/P

The molecular mechanism of the crosstalk between the β_2-adrenergic receptor and chemokine receptors in lymphocytes

◯ Akiko Nakai[1, 2)], Kazuhiro Suzuki[1, 2, 3)]
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3-C-WS19-02-P

The G-protein Coupled Receptor Fpr2 Mediates Neutrophil Infiltration, Angiogenesis and Lung Metastasis of Murine 4T1 Breast Cancer

◯ Teizo Yoshimura[1)], Chunning Li[2)], Jonathan Weiss[3)], Keqiang Chen[3)], Wanghua Gong[4)], Akihiro Matsukawa[2)], Ji Ming Wang[3)]
Kobe Red Cross Hospital[1)], Department of Pathology and Experimental Pathology, Okayama University[2)], National Cancer Institute, NIH[3)], Leidos Biomedical Research, Inc.[4)]

3-C-WS19-03-P

Blockade of the CXCR3-CXCL10 axis ameliorates inflammatory responses caused by immunoproteasome dysfunctions

◯ Yuki Sasaki
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3-C-WS19-04-P

Maintenance of intestinal epithelial integrity by stromal cells through production of CXCL12

◯ Mayu Yagita[1)], Hisako Kayama[2)], Takashi Nagasawa[3)], Atsushi Kumanogoh[1)], Kiyoshi Takeda[1)]
Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine[1)], Laboratory of Immune Regulation, Department of Microbiology and Immunology, Osaka University Graduate School of Medicine[2)], Laboratory of Stem Cell Biology and Developmental Immunology, Graduate School of Frontier Biosciences and Graduate School of Medicine, WPI Immunology Frontier Research Center, Osaka University[3)]

3-C-WS19-05-P

CCL3-CCR5 axis exacerbate acetaminophen-induced liver injury in mice

◯ Yuko Ishida, Yumi Kuninaka, Mizuho Nosaka, Akihiko Kimura, Naofumi Mukaida, Toshikazu Kondo
Department of Forensic Medicine, Wakayama Medical University, Wakayama, Japan

3-C-WS19-06-P

CCL3-CCR5 axis improve innate immune responses during septic peritonitis

◯ Yumi Kuninaka, Yuko Ishida, Mizuho Nosaka, Akihiko Kimura, Naofumi Mukaida, Toshikazu Kondo
Department of Forensic Medicine, Wakayama Medical University, Wakayama, Japan

3-C-WS19-07-O/P

A cell migration-promoting molecule FROUNT regulates macrophage activation

◯ Etsuko Toda[1, 2], Yuya Terashima[2], Kouji Matsushima[2]

Department of Analytic Human Pathology, Nippon Medical School, Tokyo, Japan[1], Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences (RIBS), Tokyo University of Science, Chiba, Japan[2]

3-C-WS19-08-P

CCR4 mediates expansion of Th17 cells in lymph nodes of mouse psoriasis

◯ Kosuke Kitahata[1], Kazuhiko Matsuo[1], Daisuke Nagakubo[2], Osamu Yoshie[3], Takashi Nakayama[1]

Kindai University, Higashi-osaka, Japan[1], Himeji Dokkyo University, Himeji, Japan[2], The Health and Kampo Institute, Sendai, Japan[3]

3-C-WS19-09-P

Expressions of intrathrombotic CX3CR1 and fractalkine and their possible role in thrombolysis on murine DVT model

◯ Mizuho Nosaka[1], Yuko Ishida[1], Akihiko Kimura[1], Yumi Kuninaka[1], Naofumi Mukaida[2], Toshikazu Kondo[1]

Department of Forensic Medicine, Wakayama Medical University, Wakayama, Japan[1], Division of Molecular Bioregulation, Cancer Research Institute, Kanazawa University, Kanazawa, Japan[2]

3-C-WS19-10-O/P

The role of underlying diseases-derived soluble ST2 in influenza infection

◯ Pei-Chi Lo

Laboratory for Innate Immune Systems, Graduate School of Medicine, Osaka University, Osaka, Japan

3-C-WS19-11-P

CCR4 involvement in the expansion of regulatory T cells in a mouse model of food allergy

◯ Kazuhiko Matsuo[1], Osamu Yoshie[2, 3], Takashi Nakayama[1]

Division of Chemotherapy, Kindai University Faculty of Pharmacy, Higashi-osaka, Osaka, Japan[1], The Health and Kampo Institute, Sendai, Miyagi, Japan[2], Emeritus professor, Kindai University, Higashi-osaka, Japan[3]

3-C-WS19-12-O/P

A neddylation inhibitor Pevonedistat inactivates Regnase-1 via MALT1-mediated cleavage

◯ Yuki Komori, Ryuta Muromoto, Tadashi Matsuda

Department of immunology, Graduate school of Pharmaceutical Sciences, Hokkaido University, Hokkaido, Japan

3-C-WS19-13-O/P

Manipulating the expression of Regnase-1 by antisense oligonucleotides to counteract inflammatory diseases

◯ Ka Man Tse, Takashi Mino, Takuya Uehata, Keiko Yasuda, Masanori Yoshinaga, Osamu Takeuchi

Department of Medical Chemistry, Graduate School of Medicine, Kyoto University, Kyoto, Japan

3-C-WS19-14-P

Thrombomodulin suppresses apoptosis of podocytes by activating Akt signal pathway

◯ Valeria Fridman D'Alessandro[1], Taro Yasuma[1], Masaaki Toda[1], Atsuro Takeshita[1], Corina D'Alessandro Gabazza[1], Yuko Okano[2], Yutaka Yano[2], Esteban Gabazza[1]

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3-C-WS19-15-P

Recombinant soluble thrombomodulin promotes intestinal stem cell-mediated epithelial regeneration

◯ Arong Gaowa, Eun jeong Park, Motomu Shimaoka

Department of Molecular Pathobiology and Cell Adhesion Biology, Mie University Graduate School of Medicine, Tsu, Japan

3-C-WS19-16-P

The active cyclin dependent kinase 4 and 6 contributed in the MMP-1/3 productions by stabilizing JUN in rheumatoid arthritis synovial fibroblasts

◯ Tadashi Hosoya, Yasuhiro Tagawa, Hiroyuki Baba, Seiji Noda, Shinsuke Yasuda

Department of Rheumatology, Tokyo Medical and Dental University, Tokyo, Japan

3-C-WS19-17-P

Characterizing COVID-19, Castleman's Disease and Rheumatoid ArthritisBased on Patients' Serum Cytokine/Chemokine Patterns Before and After Tocilizumab Treatment UsingPartial Least Squares Regression 2 Analysis

◯ Kazuko Uno[1], Toshio Tanaka[2], Kazuyuki Yoshizaki[3]

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3-C-WS19-18-O/P

Extracellular adenosine induces hypersecretion of IL-17A by T-helper 17 cells through the adenosine A2a receptor to promote neutrophilic inflammation

◯ Masaaki Kawano[1)], Mieko Tokano[1, 2)], Rie Takagi[1)], Toshimasa Yamamoto[2)], Sho Matsushita[1, 3)]

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3-C-WS19-19-O/P

Interferon-β promotes the survival and function of induced regulatory T cells

◯ Nanako Nishiyama[1, 2)], Chigusa Nakahashi-Oda[1, 3)], Akira Shibuya[1, 3, 4)]

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3-C-WS19-20-P

Alendronate augments lipid A-induced IL-1α release via activation of ASC

◯ Riyoko Tamai, Yusuke Kiyoura

Ohu University School of Dentistry

3-C-WS19-21-P

The protective role of "super Th1 cells"-derived IL-22 in Th1-type lung inflammation

◯ Masakiyo Nakahira, Etsushi Kuroda

Department of Immunology, Hyogo College of Medicine, Hyogo, Japan

3-C-WS19-22-P

TNF receptor-associated factor 5 reciprocally controls signals through IL-27 receptor and GITR in $CD4^+$ T-lymphocytes

◯ Mitsuki Azuma[1)], Masashi Morita[1)], Yuko Okuyama[2)], Naoto Ishii[2)], Takanori So[1)]

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3-C-WS19-23-P

A role of IL-9 signaling in Tfh cells to establish humoral immune responses

◯ Taiki Sato[1, 2)], Ippei Ikegami[1)], Masahiro Yanagi[1, 3)], Shiori Kamiya[1)], Ryuta Kamekura[1)], Atsushi Watanabe[2)], Shingo Ichimiya[1)]

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3-C-WS19-24-P

Chronic stress-induced microglial interleukin-12/23 axis and medial prefrontal cortex impairment in neuropsychiatric lupus

◯ Nobuya Abe[1, 2)], Yuichiro Fujieda[1)], Kohei Karino[1)], Mona Uchida[2)], Michihito Kono[1)], Yuki Tanaka[2)], Rie Hasebe[3)], Masaru Kato[1)], Kenji Oku[1)], Tatsuya Atsumi[1)], Masaaki Murakami[2)]

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3-C-WS19-25-O/P

Therapeutic effects of genetic and chemical targeting of IRF5 on experimental SLE

◯ Tatsuma Ban[1)], Masako Kikuchi[1, 2)], Go Sato[1)], Akio Manabe[1)], Akira Nishiyama[1)], Ryusuke Yoshimi[3)], Hideyuki Yanai[4)], Tadashi Yamamoto[5)], Tadatsugu Taniguchi[4)], Shuichi Ito[2)], Tomohiko Tamura[1, 6)]

Department of Immunology, Yokohama City University Graduate School of Medicine, Yokohama, Japan[1)], Department of Pediatrics, Yokohama City University Graduate School of Medicine, Yokohama, Japan[2)], Department of Stem Cell and Immune Regulation, Yokohama City University Graduate School of Medicine, Yokohama, Japan[3)], Department of Inflammology, Social Cooperation Program, Research Center for Advanced Science and Technology, University of Tokyo, Tokyo, Japan[4)], Cell Signal Unit, Okinawa Institute of Science and Technology Graduate University, Okinawa, Japan[5)], Advanced Medical Research Center, Yokohama City University, Yokohama, Japan[6)]

3-C-WS19-26-P

A novel intramolecular regulation of mouse Jak3 activity by phosphorylation of a tyrosine 820

◯ Yuichi Sekine[1)], Kenji Oritnai[2)], Tadashi Matsuda[3)]

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3-C-WS19-27-O/P

Card9 is crucial for bone marrow-derived inflammatory macrophage differentiation induced by GM-CSF

◯ Ei'ichi Iizasa[1)], Hideo Mitsuyama[1, 2)], Yuki Oyamada[1)], Hiromasa Inoue[2)], Hiromitsu Hara[1)]

Department of Immunology, Graduate School of Medical and Dental Sciences, Kagoshima University[1)], Department of Pulmonary medicine, Graduate School of Medical and Dental Sciences, Kagoshima University[2)]

3-C-WS19-28-P

Amelioration of kidney fibrosis and dysfunction by recombinant thrombomodulin

◯ Asturo Takeshita[1, 2)], Taro Yasuma[1, 2)], Yuko Okano[1, 2)], Kota Nishihama[1)], Valeria Fridman D'Alessandro[2)], Masaaki Toda[2)], Corina N. D'Alessandro-Gabazza[2)], Yutaka Yano[1)], Esteban C. Gabazza[2)]

Diabetes and Endocrinology, Mie University Hospital, Mie, Japan[1)], Department of Immunology, Mie University Graduate School of Medicine, Mie, Japan[2)]

3-C-WS19-29-P

The physiological significances of membrane-bound and soluble forms of RANKL in bone and lymph node development

◯ Takuya Sugita[1)], Kazuo Okamoto[2)], Takeshi Nitta[1)], Hiroshi Takayanagi[1)]

Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo[1)], Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo[2)]

December 10

WS20 T cell development and function

Discussers: Taishin Akiyama, Hiroyuki Hosokawa, Koichi Ikuta, Kiyokazu Kakugawa, Takeshi Kawabe, Motoko Kimura, Kota Kokubo, Takeshi Nitta, Harumi Suzuki

3-D-WS20-01-O/P

Notch family members cooperate to drive early T cell development via direct and indirect regulation of stage-specific target genes

◯ Hiroyuki Hosokawa

Department of Immunology, Tokai University School of Medicine

3-D-WS20-02-O/P

The Synergic Role of E2A and Notch signaling in T cell lineage-specific enhancer regulome

◯ Kazuko Miyazaki, Hiroshi Kawamoto, Masaki Miyazaki

Institute for Frontier Medical and Life Sciences, Kyoto University

3-D-WS20-03-P

A critical role of transient receptor melastatin 7 in early T cell development

◯ Masatsugu Oh-hora, Takehiko Yokomizo

Juntendo University, School of Medicine, Department of Biochemistry, Tokyo, Japan

3-D-WS20-04-P

Runx1 and Runx3 drive progenitor to T-lineage transcriptome conversion in mouse T-cell commitment via dynamic genomic site switching

◯ Yuichi Kama, Hiroyuki Hosokawa

Department of Immunology, Tokai University School of Medicine, Kanagawa, Japan

3-D-WS20-05-P

Early T cell progenitor-derived antigen-presenting cells contribute to T cell repertoire selection in the thymus

◯ Haruka Wada, Ryo Otsuka, Ken-chiro Seino

Dividion of Immunobiology, Institute for Genetic Medicine, Hokkaido University

3-D-WS20-06-P

Lmo2/Zbtb1/Cbfa2t3 complex maintains potential to differentiate into T-lineage in hematopoietic stem and progenitor cells

◯ Maria Koizumi, Ken-ichi Hirano, Katsuto Hozumi, Hiroyuki Hosokawa

Department of Immunology, Tokai University School of Medicine

3-D-WS20-07-P

LMO2 is essential to maintain the ability of progenitors to differentiate into T-cell lineage

◯ Ken-ichi Hirano, Hiroyuki Hosokawa, Maria Koizumi, Katsuto Hozumi

Department of Immunology, Tokai University School of Medicine

3-D-WS20-08-O/P

Dynamic THEMIS subcellular localization is essential for its function

◯ Kiyokazu Kakugawa, Hilde Cheroutre

Riken, IMS, Laboratory for Immune Crosstalk

3-D-WS20-09-O/P

Phosphorylation of the last tyrosine residue regulates Runx1 function during T cell development

◯ Chihiro Ogawa[1), 2)], Satoshi Kojo[1), 2)], Kazuki Okuyama[1)], Sawako Muroi[1)], Ichiro Taniuchi[1)]

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3-D-WS20-10-P

Promiscuous Gene Regulators for Central Immune Tolerance

◯ Hiroyuki Takaba, Yoshihiko Tomofuji, Hiroshi Takayanagi

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

3-D-WS20-11-P

Satb1 regulates thymocyte trafficking after positive selection

◯ Taku Naito, Yuriko Tanaka, Taku Kuwabara, Marii Ise, Motonari Kondo

Dept of Molecular Immunology, Toho University School of Medicine

3-D-WS20-12-P

The CCR4–NOT deadenylase complex safeguards thymic positive selection by down-regulating aberrant pro-apoptotic gene expression

◯ Taku Kureha[1), 2)], Takahisa Miyao[3)], Taishin Akiyama[3)], Tadashi Yamamoto[1), 3)]

Cell Signal Unit, Okinawa Institute of Science and Technology Graduate University, Onna Okinawa, Japan.[1)], Institute for Immunology, Biomedical Center, Ludwig-Maximilians-Universität München, Planegg-Martinsried, Germany[2)], Laboratory for Immune Homeostasis, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan.[3)]

3-D-WS20-13-P

Roles of RNA splicing of the *Cbfb* gene in fine-tuning of Cbfb protein amount during embryonic immune cell development

◯ Jiawen Zheng, Chengcheng Zou, Kazuki Okuyama, Jingjie Chang, Ichiro Taniuchi

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3-D-WS20-14-O/P

IL-12 derived from type 1 dendritic cells tonically promotes the differentiation of innate T-bet^{high} memory-phenotype CD4^{+} T lymphocytes in steady state

◯ Takeshi Kawabe[1), 2)], Jaeu Yi[3), 4)], Akihisa Kawajiri[1)], Kerry Hilligan[2)], Difeng Fang[5)], Naoto Ishii[1)], Hidehiro Yamane[6)], Jinfang Zhu[5)], Dragana Jankovic[2)], Kwang Soon Kim[3), 4)], Giorgio Trinchieri[7)], Alan Sher[2)]

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3-D-WS20-15-P

Single-cell RNA sequencing analysis reveals heterogeneity of memory CD8 T cells and unbiased impact of MHC class II-deficiency on memory CD8 T cell subpopulations

◯ Ruka Setoguchi, Shohei Hori

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

3-D-WS20-16-O/P

Bone marrow and splenic memory CD4 T cells are differently maintained in terms of cytokine signals, cell adhesion and cellular metabolism

◯ Uki Kimura[1)], Mathias Mursell[2)], Sano Nagano[1)], Koji Tokoyoda[1), 2)]

Division of Immunology, School of Life Science, Faculty of Medicine, Tottori University, Tottori, Japan.[1)], Deutsches Rheuma-Forschungszentrum Berlin, Leibniz Institute, Berlin, Germany.[2)]

3-D-WS20-17-P

Antigen priming of conventional dendritic cell 1 preferentially guides the differentiation of resting memory CD4 T cells

◯ Kana Matsuo[1)], Shintaro Hojyo[2)], Miya Yoshino[1)], Koji Tokoyoda[1)]

Division of Immunology, School of Life Science, Faculty of Medicine, Tottori University[1)], Division of Molecular Psychoimmunology, Institute for Genetic Medicine, Hokkaido University[2)]

3-D-WS20-18-P

The Death Assay; a method to induce memory-like T cells in culture

◯ Yasuhito Tokumoto[1)], Yasuto Araki[2)]

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3-D-WS20-19-O/P

Durable and Diverse Memory T Cell Responses against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)

◯ Masanori Isogawa, Kazutaka Terahara, Yu Adachi, Keisuke Tonouchi, Saya Moriyama, Ryutaro Iwabuchi, Tomohiro Takano, Ayae Nishiyama, Lin Sun, Taishi Onodera, Takayuki Matsumura, Yoshimasa Takahashi

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

3-D-WS20-20-P

Transient IL-27 blockade enhances CD4$^+$ T cell memory and protection against malaria

◯ Maria Lourdes Macalinao[1, 2], Shin-ichi Inoue[3], Sanjaadorj Tsogtsaikhan[3], Ganchimeg Bayarsaikhan[3], Jiun-Yu Jian[3], Kazumi Kimura[3], Julius Clemence Hafalla[2], Hiroki Yoshida[4], Daisuke Kimura[3], Katsuyuki Yui[1, 3, 5]

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3-D-WS20-21-P

CD8$^+$ tissue-resident memory T cells promote liver fibrosis resolution by inducing apoptosis of hepatic stellate cells

◯ Nobuhiro Nakamoto, Yuzo Koda, Takanori Kanai

Department of Gastroenterology and Hepatology, Keio University School of Medicine

3-D-WS20-22-P

Repeated exposure to Aspergillus fumigatus induces airway inflammation and fibrosis through the formation of tissue-resident memory CD4$^+$ T cells

◯ Kota Kokubo, Masahiro Kiuchi, Shoko Kuriyama, Chiaki Iwamura, Kiyoshi Hirahara, Toshinori Nakayama

Department of Immunology, Graduate School of Medicine, Chiba University, Chuo-ku, Chiba, Japan

3-D-WS20-23-O/P

Rejuvenating effector/exhausted CAR-T cells to stem cell memory-like CAR-T cells by resting them in the presence of CXCL12 and the NOTCH ligand

◯ Makoto Ando, Akihiko Yoshimura

Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan

3-D-WS20-24-P

Effector vs memory-like CD8 T cell fate is determined at secondary antigen stimulation after the priming

◯ Yu Gong

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3-D-WS20-25-P

CD83 marks progenitor exhausted T cell population

◯ Zhiwen Wu[1], Toshiaki Yoshikawa[1], Satoshi Inoue[1], Hirokazu Matsushita[2], Shiro Suzuki[3], Yuki Kagoya[1]

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December 10

WS21 Macrophage in inflammation and diseases

Discussers: Tsuneyasu Kaisho, Jun Kasamatsu, Masako Kohyama, Kensuke Miyake, Chigusa Nakahashi-Oda, Nobuyuki Onai, Izumi Sasaki, Tomohiko Tamura

3-E-WS21-01-O/P

An endoplasmic reticulum stress sensor IRE1α is involved in cholera toxin-induced interleukin-1β production from resident peritoneal macrophages

◯ Izumi Sasaki[1], Yuri Fukuda-Ohta[1], Shuhei Morita[2], Daisuke Okuzaki[3], Takashi Kato[1], Takashi Orimo[1], Koichi Furukawa[4], Tsuneyasu Kaisho[1]

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3-E-WS21-02-O/P

Unexpected role of atypical cyclin in mediating macrophage functionality via metabolic regulation

◯ Yee Kien Chong, Osamu Takeuchi

Department of Medical Chemistry, Graduate school of Medicine, Kyoto University

3-E-WS21-03-O/P

Deciphering the role of Regnase-1 in the pathophysiology of pulmonary arterial hypertension

◯ Ai Yaku[1, 2], Yusuke Manabe[3, 4], Osamu Takeuchi[1]

Department of Medical Chemistry, Kyoto University Graduate School of Medicine, Kyoto, Japan.[1], Department of Rheumatology and Clinical Immunology, Kyoto University Graduate School of Medicine, Kyoto, Japan.[2], Department of Vascular Physiology, Research Institute National Cerebral and Cardiovascular Center, Osaka, Japan.[3], Department of Respiratory Medicine, Allergy and Rheumatic diseases, Osaka University Graduate School of Medicine, Osaka, Japan.[4]

3-E-WS21-04-O/P

Analysis of M2 macrophage polarization regulated by transglutaminase 2 in kidney fibrosis

◯ Yoshiki Shinoda, Hideki Tatsukawa, Kiyotaka Hitomi

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3-E-WS21-05-O/P

The role of an immune-inhibitory receptor CD300a in acute renal ischemia-reperfusion

◯ Hitoshi Koizumi, Chigusa Nakahashi-Oda, akira shibuya

Department of Immunology, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

3-E-WS21-06-O/P

Placenta-expressed transcript-1, a novel immunosuppressive molecule, inhibits inflammatory cytokine production during bacterial infection

◯ Jun Kasamatsu[1], Hiroki Iwaoka[2], Ko Sato[2], Hiromasa Tanno[3], Emiko Kanno[3], Keiko Ishii[2], Kazuyoshi Kawakami[1, 2]

Department of Intelligent Network for Infection Control, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan[1], Department of Medical Microbiology, Mycology, and Immunology, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan[2], Department of Science of Nursing Practice, Tohoku University Graduate School of Medicine, Sendai, Miyagi, Japan[3]

3-E-WS21-07-O/P

Basophils promote the generation of highly phagocytic M2 macrophages which dampen excess inflammation at the resolution phase of allergic inflammation

◯ Kensuke Miyake[1], Kazufusa Takahashi[1], Junya Ito[1], Jun Nakabayashi[2], Shigeyuki Shichino[3], Soichiro Yoshikawa[1, 4], Hajime Karasuyama[1]

Advanced Research Institute, Tokyo Medical and Dental University (TMDU)[1], College of Liberal Arts and Sciences, Tokyo Medical and Dental University (TMDU)[2], Research Institute of Biomedical Sciences, Tokyo University of Science[3], Department of Cellular Physiology, Okayama University[4]

3-E-WS21-08-O/P

U1 RNP can induce NETosis to isolated mouse neutrophils through NOX2 independent pathway

◯ Emiko Takeuchi[1], Makoto Otsu[2], Yasuo Takeuchi[3], Kazuya Iwabuchi[1]

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3-E-WS21-09-P

M-CSF/IL-34-differentiated bone marrow cells mimic microglia cells and metallochionein is important roles for endocytosis of amyloid β42

◯ Yasuhiro Yoshida, Yusuke Sennari

University of Occupational and Environmental Health, Japan

3-E-WS21-10-P

Resident macrophages give rise to spatial heterogeneity of immune responses in the liver

◯ Yu Miyamoto, Junichi Kikuta, Masaru Ishii

Department of Immunology and Cell Biology, Osaka University Graduate School of Medicine, Osaka, Japan

3-E-WS21-11-P

Transcriptional mechanisms responsible for functional alteration of microglia in aging and AD

◯ Shun Ishikawa[1, 2], Taku Sato[1], Toshiaki Ohteki[1]

Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University[1], JSPS Research Fellowship for Young Scientists(DC2)[2]

3-E-WS21-12-P

Immune checkpoint gp49B tethers fibronectin with integrins on macrophage cell surface

◯ So Itoi[1], Shota Endo[1], Mei-Tzu Su[1], Yuzuru Sakamoto[2], Toshiyuki Takai[1]

Department of Experimental Immunology, Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan[1], Department of Human Science, Faculty of Liberal Arts, Tohoku Gakuin University, Sendai, Japan[2]

3-E-WS21-13-P

Effects on function of macrophages by diazinon-modified metabolic status

◯ Ko Iwaki, Miyoko Matsushima, Goki Inoue, Yuki Hayashi, Teppei Yamashita, Moeko Ohara, Hikaru Tsuzuki, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine

3-E-WS21-14-P

Carboplatin-mediated recovery of LPS-induced tolerant macrophages via p53/cell cycle pathway

◯ Atsadang Boonmee[1)], Salisa Benjaskulluecha[2)], Patipark Kueanjinda[3)], Benjawan Wongprom[1)], Thitiporn Pattarakankul[1)], Tanapat Palaga[1, 2, 4)]

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3-E-WS21-15-P

Analysis of liver macrophage subsets during the development of a newly established dietary model of non-alcoholic steatohepatitis, "3-F mice"

◯ Yuki Tada[1)], Kaichi Kasai[1)], Koichi Tsuneyama[2)], Yoshinori Nagai[1)]

Department of Pharmaceutical Engineering, Faculty of Engineering, Toyama Prefectural University[1)], Department of Pathology and Laboratory Medicine, Tokushima University Graduate School[2)]

3-E-WS21-16-P

Specific increase in joint neutrophil extracellular traps and its attenuation by interleukin-6 inhibition in autoimmune arthritis

◯ Ayako Ohyama, Tamaki Iwai, Taihei Nishiyama, Yuya Kondo, Hiroto Tsuboi, Isao Matsumoto

Division of Rheumatology, Department of Internal Medicine, Faculty of Medicine, University of Tsukuba

3-E-WS21-17-P

IKK inhibitor can inhibit both neutrophil and macrophage endocytosis of particulate matter

◯ Duo Wang[1)], Yasuhiro Yoshida[2)]

Department of Radiobiology and Hygiene Management, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, Kitakyushu, Japan [1)], Department of Immunology and Parasitology, School of Medicine, University of Occupational and Environmental Health, Japan, Kitakyushu, Japan[2)]

3-E-WS21-18-P

Induction of IL-12 from murine macrophages by intact particulate cell wall of Lactobacillus plantarum through cell wall teichoic acid-dependent phagocytosis

◯ Shin Hosokawa, Naoya Kojima

Applied Biochemistry, The University of Tokai, Kanagawa, Japan

3-E-WS21-19-P

Pulmonary Immune Response and Molecular Mechanism of Fibrosis by Inhalation Exposure to Nanomaterials

Yuhji Taquahashi[1)], Takaaki Tsunematsu[2)], Jun Kanno[1)], Naozumi Ishimaru[2)], ◯ Rieko Arakaki[2)]

Division of Cellular Molecular Toxicology, National institute of Health Sciences[1)], Department of Oral Molecular Pathology, Tokushima University Graduate School of Biomedical Sciences[2)]

3-E-WS21-20-P

Analysis of efferocytosis on type 2-skewed immune responses in NC/Nga mice

◯ Teppei Yamashita, Miyoko Matsushima, Goki Inoue, Ko Iwaki, Yuki Hayashi, Moeko Ohara, Hikaru Tsuzuki, Tsutomu Kawabe

Department of Integrated Health Sciences, Nagoya University Graduate School of Medicine

3-E-WS21-21-P

Enhanced efferocytosis by macrophages ameliorates neuronal deficit in CD300a-deficient mice after ischemic stroke

◯ Chigusa Nakahashi-Oda[1)], Yuta Nakazawa[1)], Kazumasa Kanemaru[1)], Yaqiu Wang[1)], Takashi Shichita[2)], Jiro Kitaura[3)], Akira Shibuya[1)]

University of Tsukuba, Tsukuba, Ibaraki, Japan[1)], Tokyo Metropolitan Institute of Medical Science, Setagaya, Tokyo, Japan[2)], Juntendo University Graduate School of Medicine, Bunkyo, Tokyo[3)]

3-E-WS21-22-P

Mitochondrial disturbance in Kupffer cells exacerbates sepsis-induced mortality following burn injury

◯ Hiromi Miyazaki[1)], Manabu Kinoshita[2)], Hiroyuki Nakashima[2)], Masahiro Nakashima[2)], Shuhji Seki[2)], Shingo Nakamura[3)], Daizoh Saitoh[1)]

Division of Traumatology, Research Institute, National Defense Medical College, Saitama, Japan[1)], Department of Immunology and Microbiology, National Defense Medical College, Saitama, Japan[2)], Division of Biomedical Engineering, Research Institute, National Defense Medical College, Saitama, Japan[3)]

3-E-WS21-23-P

The role of an intracellular chaperones of long-chain fatty acids FABP7 in liver macrophages during liver fibrosis

◯ Hirofumi Miyazaki, Shuhan Yang, Yuji Owada
Department of Organ Anatomy, Grad. Sch. of Med., Tohoku University

3-E-WS21-24-P

Effects of long-chain fatty acids on the phagocytic function of MG6 microglial cells

◯ Shuhan Yang, Hirofumi Miyazaki, Tunyanat Wannakul, Yuji Owada
Department of Organ Anatomy, Grad. Sch. of Med., Tohoku univ.

3-E-WS21-25-P

Multiple alveolar macrophage states in connective tissue disease-associated interstitial pneumonia patients revealed by single-cell RNA-seq

◯ Wataru Fujii, Takahiro Seno, Kazuki Fujioka, Yutaka Kawahito
Inflammation and Immunology, Graduate School of Medical Science, Kyoto Prefectural University of Medicine

3-E-WS21-26-P

Identification of Kupffer cell subsets in mice

◯ Hiroyuki Nakashima, Masahiro Nakashima, Kazuki Koiwai, Shuhji Seki, Manabu Kinoshita
Immunology and Microbiology, National Defense Medical College, Saitama, Japan

3-E-WS21-27-P

Chronic psychological stress reduces the number of tissue resident macrophage expressing acetylcholine esterase in sympathetic ganglion via cortisol

◯ Ayaka Komura, Kei Nagao, Ruriko Okutani, Yuki Fujita, Hitoshi Urakami, Soichiro Yoshikawa
Department of cellular physiology,Okayama university graduate school of medicine, dentistry and pharmaceutical science

December 10

WS22 Human Immunology

Discussers: Keishi Fujio, Kouyuki Hirayasu, Masahiro Kitabatake, Tomoyuki Mukai, Shingo Nakayamada, Bunki Natsumoto, Ryuta Nishikomori, Kazuhiko Yamamoto, Satoshi Yamasaki

3-F-WS22-01-O/P

JAK inhibitor downregulates the expression of NOD2 induced by IFN-γ; a possible therapeutic strategy for Blau syndrome

◯ Riko Ito[1)], Naotomo Kambe[1)], Megumu Saito[2)], Kenji Kabashima[1)]
Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto[1)], Department of Clinical Application, Center for iPS cell research and application (CiRA), Kyoto University, Kyoto[2)]

3-F-WS22-02-O/P

T- and B-cell abnormalities associated with an IKZF3 miss-sense mutation

◯ Jingjie Chang[1)], Hye Sun Kuehn[2)], Junji Harada[1)], Chengcheng Zou[1)], Kazuki Okuyama[1)], Sergio D Rosenzweig[2)], Ichiro Taniuchi[1)]
Laboratory For Transcriptional Regulation, RIKEN Center For Integrative Medical Sciences, Kanagawa, Japan[1)], Immunology Service, Department Of Laboratory Medicine, Clinical Center, NIH, Maryland, Bethesda, USA[2)]

3-F-WS22-03-O/P

Investigation of host-derived proteins in gastrointestinal fluid of infants with DIA-MS-based proteomic analysis

◯ Tomo Kakihara[1)], Eiichiro Watanabe[2)]
Department Of Pediatric Surgery, Faculty Of Medicine, University Of Tokyo, Bunkyo-ku, Tokyo, Japan[1)], Division Of Surgery, National Center For Child Health And Development, Setagata-ku, Tokyo, Japan.[2)]

3-F-WS22-04-O/P

Angiopoietin like 4 plays a critical role in the development of pulmonary fibrosis

◯ Masahiro Kitabatake[1)], Shoichiro Saito[1)], Noriko Ouji-Sageshima[1)], Akihisa Oda[2)], Atsushi Hara[1)], Tatsuro Ogawa[3)], Shigeyuki Shichino[3)], Satoshi Ueha[3)], Kouji Matsushima[3)], Toshihiro Ito[1)]
Department of Immunology, Nara Medical University, Nara, Japan[1)], Department of Pediatrics, Nara Medical University, Nara, Japan[2)], Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute of Biomedical Sciences, Tokyo University of Science, Chiba, Japan[3)]

3-F-WS22-05-O/P

Functional analysis of rare variants associated with SLE using patients derived iPS cells

◯ Bunki Natsumoto[1)], Hirofumi Shoda[1)], Yasuo Nagafuchi[1)], Makoto Otsu[2)], Kazuhiko Yamamoto[3)], Hideki Taniguchi[4)], Keishi Fujio[1)]

Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan.[1)], Department of Transfusion and Cell Transplantation, Kitasato University School of Medicine.[2)], Laboratory for Autoimmune Diseases, Center for Integrative Medical Sciences, RIKEN, Yokohama, Japan.[3)], Division of Stem Cell Processing/Stem Cell Bank, Center for Stem Cell Biology and Regenerative Medicine, Institute of Medical Science, The University of Tokyo, Tokyo, Japan.[4)]

3-F-WS22-06-O/P

Control of naive and effector CD4 T cell receptor repertoires by rheumatoid-arthritis-risk HLA alleles

◯ Yasuo Nagafuchi[1, 2)], Mineto Ota[1, 2)], Hiroaki Hatano[1)], Mariko Inoue[1)], Masahiro Nakano[1)], Saeko Yamada[1)], Ryochi Yoshida[1)], Hirofumi Shoda[1)], Yukinori Okada[3)], Kazuhiko Yamamoto[1, 4)], Tomohisa Okamura[1, 2)], Keishi Fujio[1)]

Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo[1)], Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo[2)], Department of Statistical Genetics, Osaka University Graduate School of Medicine[3)], Laboratory for Autoimmune Diseases, RIKEN Center for Integrative Medical Sciences[4)]

3-F-WS22-07-O/P

Genetic diversity of immune receptors *LILRB3* and *LILRA6* suggests their interaction with bacteria

◯ Kouyuki Hirayasu[1)], Rikinari Hanayama[1, 2)]

Advanced Preventive Medical Sciences Research Center, Kanazawa University, Ishikawa, Japan[1)], WPI Nano Life Science Institute (NanoLSI), Kanazawa University, Ishikawa, Japan[2)]

3-F-WS22-08-O/P

Broad neutralization activity of SARS-CoV-2 antibody is achieved by coordinated recognition of virus vulnerable site

◯ Taishi Onodera[1)], Yu Adachi[1)], Saya Moriyama[1)], Takeshi Inoue[2)], Shuuhei Sakakibara[3)], Keisuke Tonouchi[1)], Lin Sun[1)], Mitsuo Oshimura[4)], Tomohiro Kurosaki[2)], Katsumi Maenaka[5)], Yoshimasa Takahashi[1)]

Reseach center for drug and vaccine development, National institute of Infectious Diseases[1)], Laboratory of Lymphocyte Differentiation, WPI Immunology Frontier Research Center, Osaka University[2)], Laboratory of Immune Regulation, WPI Immunology Frontier Research Center, Osaka University[3)], Trans Chromosomics Inc.; Tottori[4)], Laboratory of Biomolecular Science, and Center for Research and Education on Drug Discovery, Faculty of Pharmaceutical Sciences, Hokkaido University[5)]

3-F-WS22-09-P

Within-year variation in human T-cell receptor repertoire and the influence of extrinsic factors on it

◯ Ayaka Maki, Tomoaki Naito, Tetsuji Hori, Satoshi Matsumoto

Yakult Central Institute, Tokyo, Japan

3-F-WS22-10-P

Analysis of disease-associated SNPs and inflammatory mechanisms in Dupuytren's contracture

◯ Hiroaki Kida[1, 2)], Ikuko Takahashi[1)], Yuichiro Matsui[2)], Norimasa Iwasaki[2)], Masaaki Murakami[1)]

Molecular Psychoimmunology, Institute for Genetic Medicine, Graduate School of Medicine, Hokkaido University, Japan[1)], Department of Orthopaedic Surgery, Faculty of Medicine and Graduate School of Medicine, Hokkaido University, Japan[2)]

3-F-WS22-11-P

A microbiome-derived peptide induces apoptosis of cells from different tissues

◯ Yuko Okano[1, 2)], Atsuro Takeshita[1, 2)], Kota Nishihama[1, 2)], Valeria Fridman[1)], Taro Yasuma[1, 2)], Corina Gabazza[1)], Masaaki Toda[1)], Yutaka Yano[2)], Esteban Gabazza[1)]

Department of Immunology Mie University[1)], Department of Diabetes and Endocrinology, Mie University [2)]

3-F-WS22-12-P

Regulation of immune status by microRNAs in personalized vaccination and immunotherapy

◯ Hidemitsu Kitamura[1)], Junya Ohtake[1, 2)], Yosuke Ohno[3)], Shigenori Homma[3)], Akinobu Taketomi[3)]

Division of Functional Immunology, Institute for Genetic Medicine, Hokkaido University[1)], Center for Medical Sciences, St Luke's International University[2)], Department of Gastroenterological Surgery I, Hokkaido University Graduate School of Medicine[3)]

3-F-WS22-13-P

Immunological features that determine the intensity of antibody responses to BNT162b2 mRNA vaccine against SARS-CoV-2

◯ Takahiro Kageyama, Shigeru Tanaka, Tadamichi Kasuya, Taro Iwamoto, Kei Ikeda, Hiroshi Nakajima

Department of Allergy and Clinical Immunology, Graduate School of Medicine, Chiba University

3-F-WS22-14-P

Aging and CMV Infection Affect Pre-existing SARS-CoV-2-Reactive $CD8^+$ T Cells in Unexposed Individuals

◯ Norihide Jo[1, 2)], Yoko Hamazaki[1, 3)]

Department of Life Science Frontiers, Center for iPS Cell Research and Application (CiRA), Kyoto University, Kyoto, Japan[1)], Alliance Laboratory for Advanced Medical Research, Graduate school of Medicine, Kyoto University, Kyoto, Japan[2)], Laboratory of Immunobiology, Graduate school of Medicine, Kyoto University, Kyoto, Japan[3)]

3-F-WS22-15-P

Protective effect of conditioned media of immortalized stem cells from human exfoliated deciduous teeth on the formation of acute pressure ulcers via HGF and VEGF

◯ Yasuhiro Katahira, Shinya Inoue, Hideaki Hasegawa, Aruma Watanabe, Izuru Mizoguchi, Takayuki Yoshimoto
Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University

3-F-WS22-16-P

A Therapeutic Strategy That Selectively Targets Human Monocyte Progenitors for Solid Cancers and Leukemias

◯ Yuta Izumi, Masashi Kanayama, Toshiaki Ohteki
Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University (TMDU), Tokyo, Japan.

Awards Ceremony and Lectures

Awards Ceremony and Lectures

12 月 8 日（水） Wednesday, 8th December

各賞授賞式・受賞講演
Awards Ceremony and Lectures

第 24 回日本免疫学会賞授賞式 / 24th JSI Award Ceremony

第 24 回日本免疫学会賞受賞者
24th JSI Award Winner

「制御性 T 細胞による免疫制御機構の解明」
“Elucidation of the mechanisms underlying Foxp3+ regulatory T cell-dependent immune regulation”
堀　昌平　氏（東京大学大学院 薬学系研究科免疫・微生物学教室）
Dr. Shohei Hori, The University of Tokyo

第 8 回日本免疫学会ヒト免疫研究賞授賞式 / 8th JSI Human Immunology Research Award Ceremony

第 8 回日本免疫学会ヒト免疫研究賞受賞者
8th JSI Human Immunology Research Award Winner

「単一遺伝子異常症によるヒト免疫疾患の病態解明」
“Elucidation of molecular pathogenesis of human inborn errors of immunity”
森尾　友宏　氏（東京医科歯科大学大学院 発生発達病態学分野）
Dr. Tomohiro Morio, Tokyo Medical and Dental University

第 8 回日本免疫学会女性免疫研究者賞授賞式 / 8th JSI Women Immunologist Award Ceremony

第 8 回日本免疫学会女性免疫研究者賞受賞者
8th JSI Women Immunologist Award Winner

「T 細胞の分化・活性化機構と疾患制御に関する研究」
“Clarification of T cell differentiation and activation mechanism and its application for disease control”
渋谷　和子　氏（筑波大学 医学医療系 免疫制御医学研究室）
Dr. Kazuko Shibuya, University of Tsukuba

※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 16 回日本免疫学会研究奨励賞授賞式 / 16th JSI Young Investigator Award Ceremony

第 16 回日本免疫学会研究奨励賞受賞者（五十音順）
16th JSI Young Investigator Award Winners

「腸管上皮細胞が発現する Lypd8 による大腸恒常性維持機構の解明」
"Maintenance of colonic homeostasis by Lypd8 expressed on intestinal epithelial cells"
奥村　龍　氏（大阪大学大学院医学系研究科 免疫制御学）
Dr. Ryu Okumura, Osaka University

「胸腺髄質上皮細胞による中枢性免疫寛容の成立機構」
"Ensuring the central immune tolerance by medullary thymic epithelial cells"
高場　啓之　氏（東京大学医学系研究科 免疫学）
Dr. Hiroyuki Takaba, The University of Tokyo

「Omics 解析を用いた炎症性腸疾患病態に関与する腸管粘膜免疫の機能解析」
"Omics data analysis of the intestinal mucosal immunity involved in the pathogenesis of inflammatory bowel diseases"
三上　洋平　氏（慶應義塾大学医学部 消化器内科）
Dr. Yohei Mikami, Keio University

「炎症における RNA 制御の分子基盤」
"Molecular basis of post-transcriptional regulation in inflammation"
三野　享史　氏（京都大学大学院医学研究科 医学専攻 分子生体統御学講座 医化学分野）
Dr. Takashi Mino, Kyoto University

「IL-4/IL-13 を中心としたアレルギー病態の解明」
"Understanding the pathogenesis of IL-4/IL-13-mediated allergic diseases"
本村　泰隆　氏（大阪大学大学院医学系研究科 生体防御学）
Dr. Yasutaka Motomura, Osaka University

※研究奨励賞受賞者の研究課題については、12 月 8 日（水）18 時 15 分からポスター発表をいたします。
*JSI Young Investigator Award, Winners' posters discussion will be started from 18:15 on 8th December.

International Immunology Outstanding Merit Award Ceremony

International Immunology Outstanding Merit Award for 2020 Winner

"Commensal-bacteria-derived butyrate promotes the T cell-independent IgA response in the colon"
Dr. Junya Isobe, Keio University

若手免疫学研究支援事業
Outstanding Young Immunology Researcher Award Winners Introduction

2021 年若手免疫学研究支援事業受賞者（五十音順）
Outstanding Young Immunology Researcher Award 2021 Winners

「脂肪酸代謝を基軸としたマルチパラメーター解析によるヒト記憶 T 前駆細胞の同定」

“Multi-parameter immunophenotyping based on heterogeneous fatty acid metabolism identifies human memory T cell precursor population”

遠藤　裕介　氏（公益財団法人かずさ DNA 研究所 オミックス医科学研究室）

Dr. Yusuke Endo, Kazusa DNA Research Institute

「腫瘍浸潤 PD-1 陽性制御性 T 細胞並びにネオ抗原特異的 T 細胞のバイオマーカー・治療標的への応用」

“PD-1+ regulatory T cell and neoantigen-specific T cell in the tumor microenvironment”

冨樫　庸介　氏（岡山大学学術研究院医歯薬学域 腫瘍微小環境学分野）

Dr. Yosuke Togashi, Okayama University

「ILC2 によるアレルギー体質形成機序の解明」

“Role of group 2 innate lymphoid cells in the formation of allergic constitution”

本村　泰隆　氏（大阪大学大学院医学系研究科 生体防御学）

Dr. Yasutaka Motomura, Osaka University

若手女性研究者研究支援事業
Outstanding Young Women Researcher Award Winners Introduction

2021 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 2021 Winners

「シェーグレン症候群における T 細胞異常の解析」

“Pathogenic role of clonally expanded CD4+ T cells in patients with primary Sjögren's syndrome”

安部　沙織　氏（筑波大学 医学医療系内科 膠原病リウマチアレルギー）

Dr. Saori Abe, University of Tsukuba

「自己免疫疾患発症に寄与する T 細胞のリンパ組織内局在に着目した特性の解明」

“Elucidation of the characteristics of T cells contribute to the development of autoimmune diseases, focusing on their localization in lymphoid tissues”

安田　圭子　氏（京都大学大学院医学研究科医学専攻 分子生体制御学講座 医化学分野）

Dr. Keiko Yasuda, Kyoto University

「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 2021” Scholarship for Doctoral Students in Immunology Winners Introduction

西山　奈菜子　氏（筑波大学）

Ms. Nanako Nishiyama, University of Tsukuba

東山　瑞希　氏（東京理科大学）

Ms. Mizuki Higashiyama, Tokyo University of Science

松浦　宏大　氏（東京大学）
Mr. Kota Matsuura, The University of Tokyo

室井　きさら　氏（慶應義塾大学）
Ms. Kisara Muroi, Keio University

森　正太郎　氏（大阪大学）
Mr. Shotaro Mori, Osaka University

保倉　祥太　氏（京都大学）
Mr. Shota Yasukura, Kyoto University

江島　亜希　氏（京都大学）
Ms. Aki Ejima, Kyoto University

川尻　昭寿　氏（東北大学）
Mr. Akihisa Kawajiri, Tohoku University

羽馬　直希　氏（北海道大学）
Mr. Naoki Hama, Hokkaido University

松本　龍太郎　氏（慶應義塾大学）
Mr. Ryutaro Matsumoto, Keio University

八木田　麻裕　氏（大阪大学）
Ms. Mayu Yagita, Osaka University

Wang Zhujun　氏（慶應義塾大学）
Ms. Wang Zhujun, Keio 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、12 月 8 日（水）18 時 15 分からポスター発表をいたします。

* “Kibou Projects” Scholarship for Doctoral Students in Immunology Winners' Poster discussion will be started from 18:15 on 8th December.

Technical Seminar

Technical Seminar

11:45-12:45, Wednesday, December 8

T01 Technical Seminar 1 Room A: Noh Theater

T01-01 Mechanistic analysis of anti-tumor immune activation by microbiota induced type-I IFN signaling

Kenji Chamoto Department of Immunology and Genomic Medicine, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine

Merck Ltd. Japan

11:45-12:45, Wednesday, December 8

T02 Technical Seminar 2 Room C: Conference Room 3&4

Chairperson: Kazuo Okamoto (Department of Osteoimmunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo)

T02-01 TCR repertoire analysis reveals spatiotemporal responses of tumor-reactive T cell clones

Satoshi Ueha Research Institute for Biomedical Sciences, Tokyo University of Science

TOMY DIGITAL BIOLOGY CO.,LTD.

11:45-12:45, Thursday, December 9

T03 Technical Seminar 3 Room A: Noh Theater

Chairperson: Atsushi Tsurumune (Nikon Solutions Co., Ltd.)

T03-01 Elucidation of biological response of the skin using live imaging system

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

Nikon Solutions Co., Ltd.

12:55-13:55, Friday, December 10

T04 Technical Seminar 4 Room A: Noh Theater

Chairperson: Toshiaki Ohteki (Department of Biodefense Research, Medical Research Institute, TMDU Tokyo Medical and Dental University)

T04-01 Post-transcriptional regulation of immune responses in inflammatory diseases

Osamu Takeuchi Department of Medical Chemistry, Graduate School of Medicine, Kyoto University, Kyoto, Japan

Nippon Becton Dickinson Company, Ltd.

12:55-13:55, Friday, December 10

T05 Technical Seminar 5 Room B: Conference Room 1&2

Chairperson: Yukinori Okada (Department of Statistical Genetics, Graduate School of Medicine, Osaka University)

T05-01 Single-cell analysis of Immune responses in micro specimens

Hiroyuki Yoshitomi Department of Immunology, Graduate School of Medicine, Kyoto University

Scrum Inc./10x Genomics

12:55-13:55, Friday, December 10

T06 Technical Seminar 6 Room C: Conference Room 3&4

Chairperson: Atsushi Iwama (Division of Stem Cell and Molecular Medicine, Center for Stem Cell Biology and Regenerative Medicine The Institute of Medical Science, The University of Tokyo)

T06-01 Introducing principle and actual data of Bigfoot, High-Speed Spectral Cell Sorter

Yoshishiro Koyama Thermo Fisher Scientific K.K.

Thermo Fisher Scientific

12:55-13:55, Friday, December 10

T07 Technical Seminar 7 Room E: Reception Hall 2

Chairperson: Etsushi Kuroda (Department of Immunology, Hyogo College of Medicine)

T07-01 Understanding and chemical controlling pyroptosis induced by irritating particulates

Tatsuya Saitoh Laboratory of Bioresponse Regulation, Graduate School of Pharmaceutical Sciences, Osaka University

Beckman Coulter K.K.

12:55-13:55, Friday, December 10

T08 Technical Seminar 8 Room F: Conference Room 5

Chairperson: Sho Yamasaki (Department of Molecular Immunology, RIMD, Osaka University)

T08-01 Introduction of a human immunology research by using mass-cytometry (CyTOF)

Takayoshi Morita Department of Respiratory Medicine and Clinical Immunology, Graduate School of Medicine, Osaka University

Fluidigm K.K.

Clinical Seminar

Clinical Seminar

11:45-12:45, Wednesday, December 8

C01 Clinical Seminar 1 Room D: Reception Hall 1

Chairperson: Yayoi Tada (Department of Dermatology, Teikyo University School of Medicine)

C01-01 The roles of IL-17 and regulatory T cells in the pathophysiology of psoriasis

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

Novartis Pharma K.K.

11:45-12:45, Wednesday, December 8

C02 Clinical Seminar 2 Room B: Conference Room 1&2

Chairperson: Kenji Kabashima (Dermatology, Kyoto University)

From Bedside to Bench:Evolving concept of Type 2 inflammation

C02-01 Type 2 immunity in atopic inflammation

Tetsuro Kobayashi Innate Immune Systems, Center for Integrative Medical Science, RIKEN, Kanagawa, Japan

C02-02 Current therapeutic strategies for atopic dermatitis -regulation of type 2 inflammation-

Tetsuya Honda Department of Dermatology, Hamamatsu University School of Medicine, Shizuoka, Japan

Sanofi Genzyme Medical Operations, Sanofi K.K.

11:45-12:45, Wednesday, December 8

C03 Clinical Seminar 3 Room E: Reception Hall 2

Chairperson: Keishi Fujio (Department of Allergy and Rheumatology, University of Tokyo)

C03-01 Multi-omic Molecular Profiling for Rheumatoid Arthritis and Large Vessel Vasculitis

Katsuya Suzuki Division of Rheumatology Department of Internal Medicine Keio University School of Medicine

C03-02 Effector B cells in autoimmune diseases: more than autoantibodies?

Hiroaki Niiro Department of Medical Education, Faculty of Medical Sciences, Kyushu University

CHUGAI PHARMATICAL CO., LTD.

11:45-12:45, Thursday, December 9

C04 Clinical Seminar 4 Room D: Reception Hall 1

Chairperson: Hiroshi Takayanagi (Department of Immunology, Graduate School of Medicine and Faculty of Medicine, The University of Tokyo)

The latest findings on biomarkers and joint destruction mechanisms in rheumatoid arthritis

C04-01 Joint destruction mechanism in the rheumatoid arthritis

Yuho Kadono Orthopaedic Surgery, Saitama Medical University, Saitama, Japan

C04-02 The Significance of the Role of Biomarkers in the Clinic of Rheumatology -Focusing on Rheumatoid Arthritis-

Hidekata Yasuoka Division of Rheumatology, Department of Internal Medicine, Fujita Health University School of Medicine

Gilead Sciences K.K./Eisai Co., Ltd.

11:45-12:45, Thursday, December 9

C05 Clinical Seminar 5 Room B: Conference Room 1&2

Chairperson: Isao Matsumoto (Department of Internal Medicine, Division of Rheumatology University of Tsukuba)

C05-01 Role of TNFa-induced signaling in rheumatoid synovium and the blockade of this pathway in clinical practie

Shinsuke Yasuda Tokyo Medical and Dental University

Mitsubishi Tanabe Pharma Corporation/Janssen Pharmaceutical K.K.

11:45-12:45, Thursday, December 9

C06 Clinical Seminar 6 Room C: Conference Room 3&4

Chairperson: Kimito Kawahata (Division of Rheumatology and Allergology, Department of Internal Medicine, St. Marianna University School of Medicine, Kawasaki, Japan)

C06-01 Immune related adverse events (irAEs) - a novel immune disorder

Kosaku Murakami Center for Cancer Immunotherapy and Immunobiology, Graduate School of Medicine, Kyoto University, Kyoto, Japan

C06-02 Clinical significance of autoantibodies in patients with rheumatoid arthritis

Takao Fujii Department of Rheumatology and Clinical Immunology, Wakayama Medical University, Wakayama, Japan

Bristol-Myers Squibb K.K. / ONO PHARMACEUTICAL CO., LTD.

11:45-12:45, Thursday, December 9

C07 Clinical Seminar 7 Room E: Reception Hall 2

Chairperson: Toshihiro Nanki (Division of Rheumatology,Department of Internal Medicine,Toho University School of Medicine)

C07-01 Dysregulation of acquired immunity in organ specific autoimmune disease ~Pathogenic roles and therapeutic potential of autoantibodies and autoantigens specific T cells in Sjögren's syndrome~

Hiroto Tsuboi Division of Rheumatology, Department of Internal Medicine, Faculty of Medicine, University of Tsukuba

ASAHI KASEI Pharma

11:45-12:45, Thursday, December 9

C08 Clinical Seminar 8 Room F: Conference Room 5

Chairperson: Keishi Fujio (Department of Allergy and Rheumatology, University of Tokyo)

C08-01 Rheumatoid arthritis and osteoporosis; pros and cons of glucocorticoids

Kunihiro Yamaoka Kitasato University School of Medicine, Department of Rheumatology and Infectious Diseases

DAIICHI SANKYO COMPANY, LIMITED

11:45-12:45, Friday, December 10

C09 Clinical Seminar 9 Room D: Reception Hall 1

Chairperson: Kojiro Sato (Division of Rheumatology and Clinical Immunology,Department of Medicine,Jichi Medical University)

C09-01 An update on research advances in rheumatoid arthritis and Sarilumab

Hiroufmi Shoda Department of Allergy and Rheumatology, Graduation School of Medicine, the University of Tokyo

ASAHI KASEI Pharma

11:45-12:45, Friday, December 10

C10 Clinical Seminar 10 Room B: Conference Room 1&2

Chairperson: Kenji Kabashima (Dermatology, Kyoto University)

C10-01 Emerging JAK inhibitors in atopic dermatitis

Atsushi Otsuka Kindai University Hospital

AbbVie GK

11:45-12:45, Friday, December 10

C11 Clinical Seminar 11 Room C: Conference Room 3&4

Chairperson: Atsushi Kumanogoh (Department of Respiratory Medicien and Clinical Immunology, Osaka Univ Graduate School of Medicine, Osaka, Japan.)

C11-01 The role of endoribonuclease Regnase-1 in inflammation, immunity, and metabolism

Shizuo Akira Laboratory of Host Defense, WPI Immunology Frontier Research Center, Osaka University, Osaka, Japan / Department of Host Defense, Research Institute for Microbial Diseases, Osaka University, Osaka, Japan

Otsuka Pharmaceutical

11:45-12:45, Friday, December 10

C12 Clinical Seminar 12 Room E: Reception Hall 2

Chairperson: Shinsuke Yasuda (Rheumatology, Tokyo Medical and Dental University)

C12-01 Rheumatoid arthritis in the era of JAK inhibitors

Hiroaki Niiro Department of Medical Education, Faculty of Medical Sciences, Kyushu University

Pfizer Japan Inc.

11:45-12:45, Friday, December 10

C13 Clinical Seminar 13 Room F: Conference Room 5

Chairperson: Keishi Fujio (Department of Allergy and Rheumatology, University of Tokyo)

C13-01 Updated mechanisms in regulation of autoimmune arthritis via TNF inhibitors

Isao Matsumoto Division of Rheumatology, Department of Internal Medicine, University of Tsukuba

AYUMI Pharmaceutical Corporation

12:55-13:55, Friday, December 10

C14 Clinical Seminar 14 Room D: Reception Hall 1

Chairperson: Kenji Kabashima (Department of Dermatology, Graduate School of Medicine, Kyoto University)

C14-01 The role of IL-23 in the pathogenesis of psoriasis : update your knowledge

Gyohei Egawa Department of dermatology, Graduate School of Medicine, Kyoto University, Japan

C14-02 The role of skin T cells in the pathogenesis of psoriasis

Rei Watanabe Department of Integrative Medicine for Allergic and Immunological Diseases, Graduate School of Medicine/Faculty of Medicine, Osaka University

Janssen Pharmaceutical K.K.

Afternoon Seminar

Afternoon Seminar

15:45-16:45, Thursday, December 9

A01 Presentation by Outstanding Young Immunology Researcher Award Winners Room A: Noh Theater

Chairpersons: Shigeo Koyasu (RIKEN and President of JSI)
Akira Shibuya (R&D Center of Innovative Drug Discovery, University of Tsukuba)

A01-01 Analysis of immune cells in the brain

Minako Ito Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

A01-02 Adaptive immune features of natural killer cells

Tsukasa Nabekura Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, Japan / Department of Immunology, Faculty of Medicine, University of Tsukuba, Japan / R&D Center for Innovative Drug Discovery, University of Tsukuba, Japan

A01-03 Single-cell RNA-seq analysis provides novel insights into the mechanism underlying the termination of basophil-elicited allergic inflammation in the skin

Kensuke Miyake Advanced Research Institute, Tokyo Medical and Dental University (TMDU)

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16:55-17:55, Thursday, December 9

A02 Presentations by the 2020 Outstanding Young Women Researcher Awardees and Ceremony of 2021 Awardees Room A: Noh Theater

Chairpersons: Shigeo Koyasu (RIKEN and President of JSI)
Akira Shibuya (R&D Center of Innovative Drug Discovery, University of Tsukuba)

A02-01 Maintenance of epithelial homeostasis by *Foxl1*-expressing stromal cells through CXCL12 production in the colon

Hisako Kayama Institute for Advanced Co-Creation Studies, Osaka University / Graduate School of Medicine, Osaka University

A02-02 Analysis of Paneth cell glycosylation and function throughout the small intestine

Mariko Kamioka Department of Mucosal Immunology, IMSUT Distinguished Professor Unit, The Institute of Medical Science, The University of Tokyo

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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）よりご登録いただくか、学会事務局（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（2022 年度 <2021 年 10 月 1 日～ 2022 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）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限り、クレジット手数料は無料（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. 2022 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：小安重夫　（2022 年 12 月 31 日迄）

理　事：久保允人、黒崎知博、反町典子、竹内　理、中山俊憲、長谷耕二、三宅健介、山崎　晶、吉村昭彦　（2022 年 12 月 31 日迄）

椛島健治、河本　宏、熊ノ郷淳、渋谷　彰、高柳　広、竹田　潔、三宅幸子　（2024 年 12 月 31 日迄）

監　事：清野　宏、山本一彦　（2022 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、収入の減少及び消費税値上げ等により、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）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関係する寄附金は、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

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（文責：　事務局長　浅井保至）

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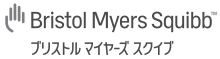

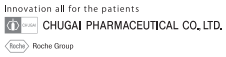

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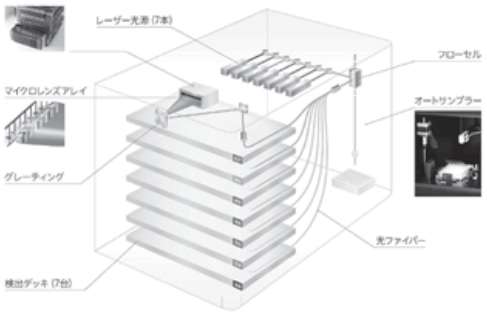

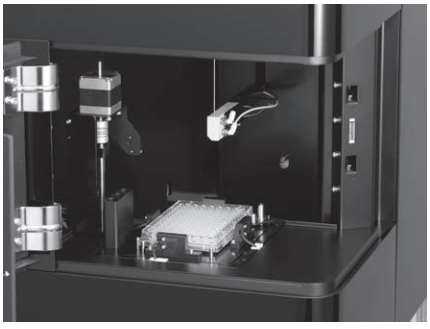

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■ グルタミン酸	■ Ca^{2+}

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キャンペーン期間　2021.11.15 (月) 〜 2022.2.18 (金)　弊社受注分まで

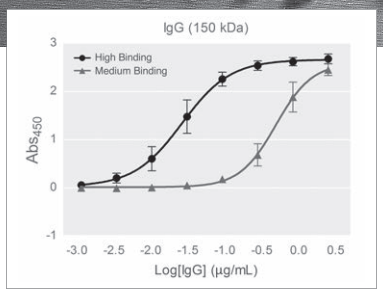
ストリップウェルプレートとは

96 ウェル平底フォーマットで、8 ウェルストリップチューブ 12 本がストリップホルダーにセットされた状態でお手元に届きます。

- 一列ずつ取り外し可能：効率よくプレートを使うことができます。サンプル数が少ない時に特にお勧めです。
- 1 方向からのみセットできるデザイン：ストリップの向きを間違えることがありません。
- ウェル容量：360 µL、推奨ワーキングボリューム：75 〜 200 µL

高結合表面は、タンパク質の捕捉力が高く、タンパク結合を伴う **ELISA などのアッセイに最適**です。

- 疎水性でイオン性（ネガティブチャージ）
- ポジティブにチャージされている生体分子（> 10 kDa）に理想的
- 結合能力：〜 500 ng IgG/cm^2



高結合（High Binding）は中結合 / 無処理（Medium Binding）に比べて IgG の捕捉に優れている

ストリップウェルに 1.14 ng/mL から 2.5 µg/mL の希釈系列で IgG を添加し、HRP の付いた二次抗体を用いてその表面結合を測定した。

カタログ番号	製品名	包装	1 ケース	メーカー希望小売価格	キャンペーン特別価格
92592	1 × 8 ストリップウェル透明 平底 高結合型 非滅菌 フタなし（ホルダー付）	25 枚／包	100 枚	84,700	**55,000**

コーニングインターナショナル株式会社　ライフサイエンス事業部

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Tel：03-3586-1996　Fax：03-3586-1291　CLSJP@corning.com　www.corning.com/lifesciences

チロシンキナーゼ阻害剤／抗線維化剤

劇薬 処方箋医薬品 注意 - 医師等の処方箋により使用すること

薬価基準収載

オフェブ® カプセル 100mg 150mg

ニンテダニブエタンスルホン酸塩製剤　OFEV® Capsules 100mg・150mg

効能又は効果、用法及び用量、警告・禁忌を含む使用上の注意等につきましては製品添付文書をご参照ください。

Boehringer Ingelheim

製造販売元（文献請求先及び問い合わせ先）

日本ベーリンガーインゲルハイム株式会社

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＜受付時間 >9:00～18:00（土・日・祝日・弊社休業日を除く）

2020年5月作成 PC

TNFα阻害薬（ペグヒト化抗ヒトTNFαモノクローナル抗体Fab'断片製剤）
（セルトリズマブ ペゴル（遺伝子組換え）製剤）

薬価基準収載

cimzia®
(certolizumab pegol)

シムジア®皮下注200mgシリンジ オートクリックス®

劇薬、処方箋医薬品
（注意－医師等の処方箋により使用すること）

Cimzia®

■「効能又は効果」「用法及び用量」「警告・禁忌」等その他の項目の詳細につきましては、製品添付文書をご参照ください。

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