



# Path-breaking Treatments for Orphan Diseases

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Euronext: **ADVIC**  
**Nimes, France**

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# Introducing Advicenne (Euronext: ADVIC)

- **Late clinical-stage specialty pharmaceutical company developing novel therapeutics for rare diseases**
- Lead asset, ADV7103 is pending EU marketing authorization for the treatment of a renal disease and was granted ORPHAN status.
- ADV7103 is also currently in pivotal Phase III trials in the US and Canada for its first indication and in pivotal Phase III trials in Europe for a second renal indication
- Market potential of several hundred million EUR
- Ozalin<sup>®</sup> granted EU marketing authorization in September 2018; developed entirely in-house; now sold to Primex Pharmaceuticals for commercialization
- Clinically de-risked: mature and balanced pipeline includes preclinical through late-stage assets
- Well financed, with about € 26 million of cash and equivalents at December 31, 2018\* plus € 20 million loan facility from EIB in July 2019

\* \$30million with 1€ = \$1.12. Unaudited data

# Our cash-efficient business model

From inception (2007) to 1<sup>st</sup> of January 2019

~€30m  
invested

## MEDICAL NEEDS FOCUSED

*Tailored approach*

- KOL driven with direct feedback from physicians
- Patient centric development
- Innovative drugs from known APIs

## TANGIBLE DEPLOYMENT

*Orphan & pediatric indications*

- **1 product already registered:** ADV6209 in Pediatric Moderate Sedation (EU)
- **2<sup>nd</sup> MAA pending:** ADV7103 in dRTA in (EU)
- **3 phase III studies ongoing:** ADV7103 in dRTA (EU & US) & in Cystinuria (EU)

## BUSINESS ORIENTED

*Partnerships*

- **A deal of up to €40m with Primex Pharmaceuticals on ADV6209 in 2016** (upfronts + milestones + royalties)
- Commercialized products (France)
- Worldwide flagship product commercialization strategy with EU5 direct sales organization

A unique track record of efficient drug **development**

# Mature and balanced pipeline

preclinical, phase I

phase II/III

registration

market

## Nephrology

ADV7103 dRTA – Orphan drug designation - MA submitted March 2019



ADV7103 dRTA



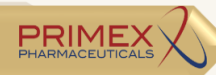
ADV7103 Cystinuria



New programs

## Neurology

ADV6209 Moderate Sedation – DCP registration and sold to



ADV6769 Epilepsy

New programs

### ADV6209 APPROVED MA

- Sold to Primex Pharmaceuticals in 2016
- A global deal that could reach a minimum 40 million EUR in cash, including upfront in 2016, conditional subsequent milestones in 2018, and royalty payments
- To date : MA granted in 7 EU countries

Internal development

Partnered

# Experienced management team



**Luc-André Granier, MD, PhD**  
*Co-founder and CEO*

*Previously worked at:*



**Caroline Roussel-Maupetit, Eng**  
*Co-founder and Operations Director*

*Previously worked at:*



**Ludovic Robin, Pharm.D, MBA**  
*Chief Business and Strategy Officer*

*Previously worked at:*



**Paul Michalet, MBA, CEFA**  
*Chief Financial Officer*

*Previously worked at:*



# Targeting unmet needs in nephrology

- Numerous diseases with diverse causes
- Abnormal kidney functions lead to serious disorders or debilitating diseases
- Few approved treatments in Europe and the US
- Few players and large unmet needs



**ADV7103 addresses two orphan tubulopathies**  
**- Inducing severe debilitating consequences**  
**- with significant unmet medical needs: dRTA and Cystinuria**

**KOL-driven product and development approach with a focus on nephrology and neurology**  
**Commitment to treatments adapted to both pediatric and adult patient populations**



# Nephrology scientific board



## Prof. Pierre Cochat (Co-chairman)

Head of Pediatric Nephrology CHU Lyon  
President of IPNA (International Pediatric Nephrology Association)



Hospices Civils de Lyon



## Prof. Larry Greenbaum (Co-chairman)

Head of Pediatric Nephrology at Emory University School of Medicine and Children's Healthcare of Atlanta  
President of APNA (American Pediatric Nephrology Association)



## Prof. Gema Ariceta

Head of Pediatric Nephrology at the Vall d'Hebron University Hospital of Barcelona (European Society of Pediatric Nephrology)



## Prof. Bertrand Knebelmann

Head of Nephrology at the Unit Necker Hospital Paris



## Prof. Elena Levtchenko

Head of Pediatric Nephrology at the KU Leuven  
President of ESPN

**KU LEUVEN**



## Prof. Detlef Bockenhauer

Head of Nephrology at the Great Ormond Street Hospital



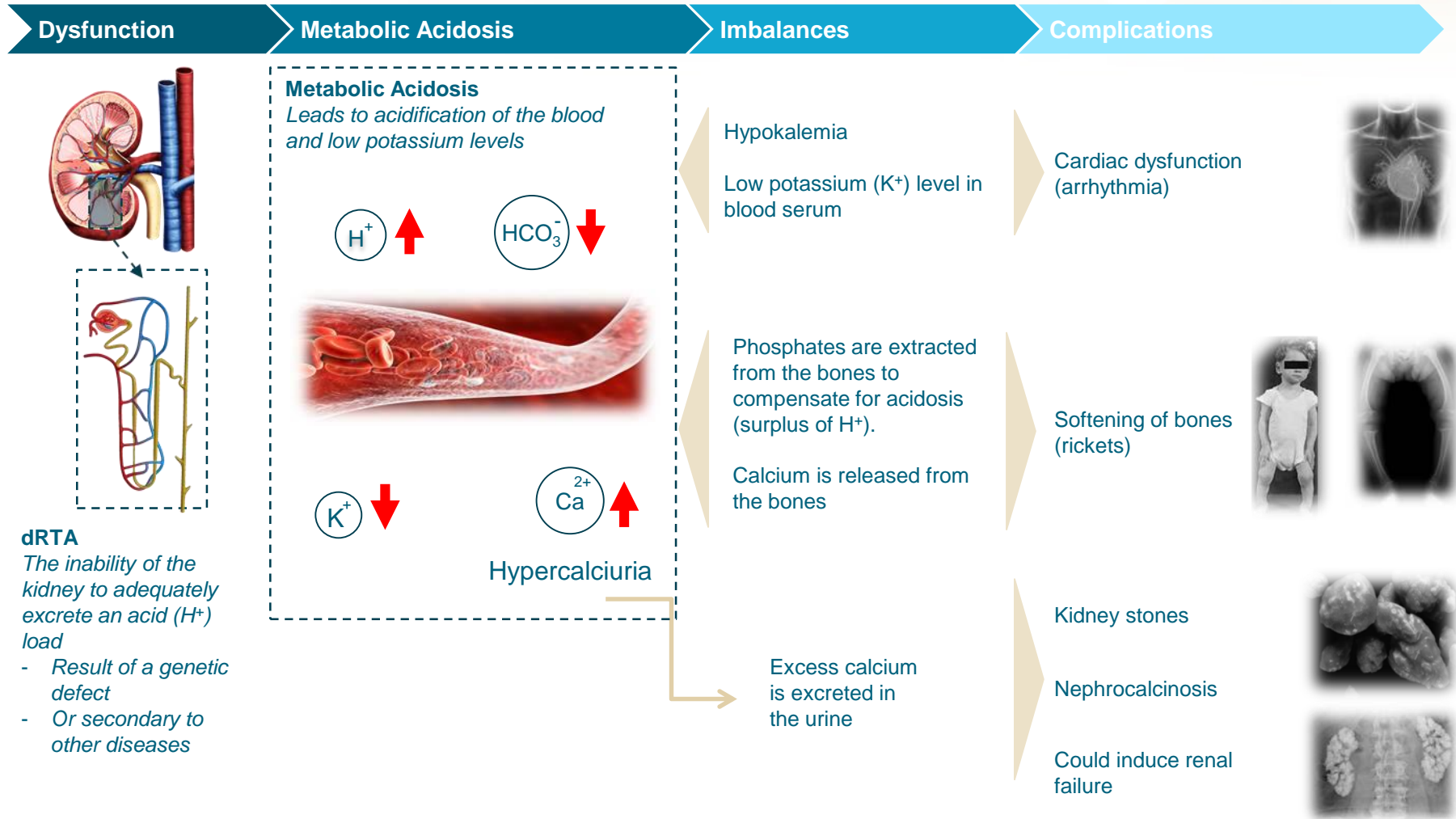


# ADV7103 Global Development - dRTA

EU & US



# Consequences of distal renal tubular acidosis (dRTA)



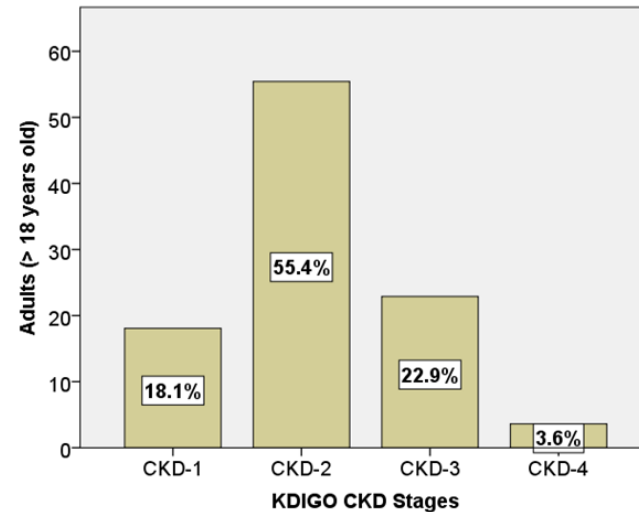
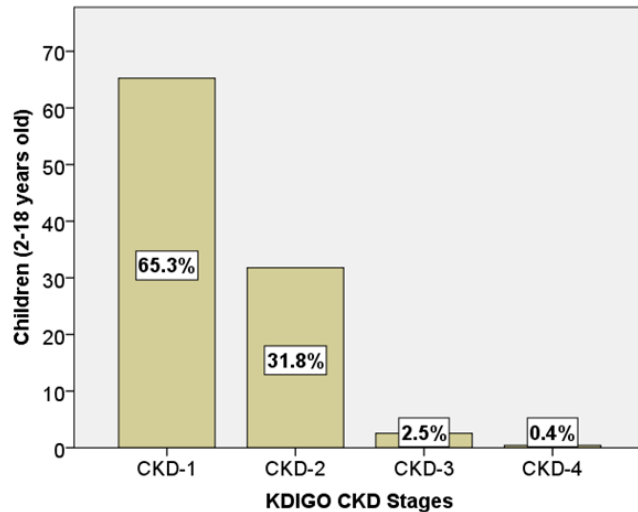
# dRTA: a severe debilitating orphan renal disease

**Table 5 | Clinical features of patients included in the study**

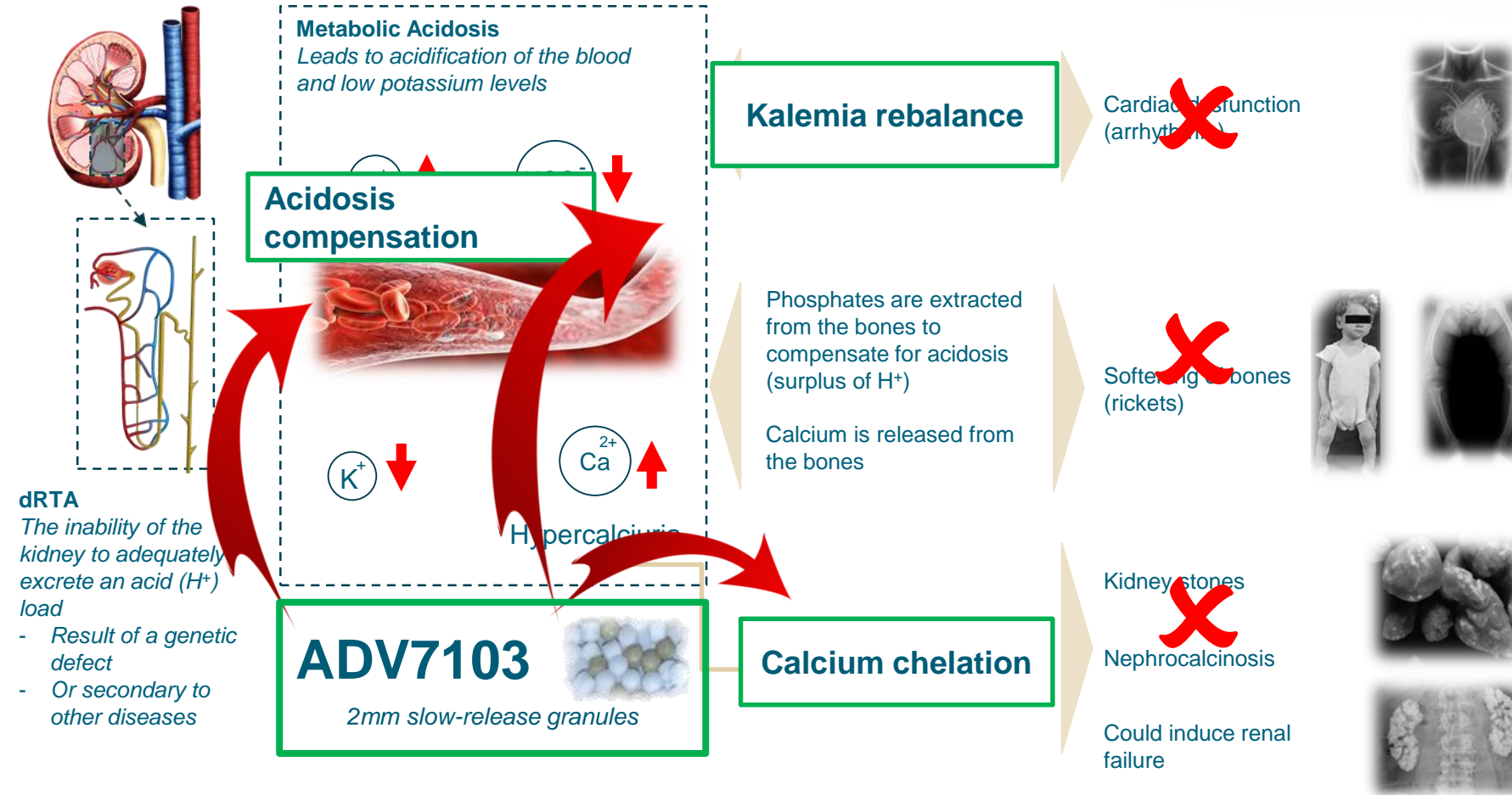
	<i>SLC4A1</i>	<i>ATP6V1B1</i>	<i>ATP6V0A4</i>	Variants of unknown clinical significance	Negative	Mutated
M/F, no. (%)	4/9 (44.4)	13/25 (52)	14/30 (46.6)	5/7 (71.4)	7/18 (38.9)	31/64 (48.4)
Age at onset of dRTA, mo	153.2	13.9	28.6	47.6	131.1	65.2
SNHL, no. (%)	1/8 (12.5)	23/25 (92)	17/30 (56.7)	3/7 (42.9)	3/18 (16.7)	41/63 (65)
Age at onset of SNHL, mo	240	41.8	183.5	168	198.7	155.1
Nephrocalcinosis, no. (%)	8/8 (100)	24/25 (96)	27/30 (90)	4/7 (57.1)	12/18 (66.6)	59/63 (93.6)
FTT, no. (%)	4/8(50)	19/24 (79.1)	23/30 (76.6)	5/6 (83.3)	2/21 (9.5)	46/62(74.2)
Hypokalemia, no. (%)	3/9 (33.3)	15/25 (60)	15/25 (60)	3/6(50)	3/17(17.6)	33/59 (55.9)
CKD		16/51 (31.3)		2/7 (28.6)	5/14 (35.7)	16/51 (31.3)

CKD, chronic kidney disease (defined as estimated glomerular filtration rate <90 ml/min per 1.73 m<sup>2</sup>), dRTA, distal renal tubular acidosis; FTT, failure to thrive; M/F, male/female; SNHL, sensorineural hearing loss.

Palazzo, *Giglio Kidney Int.* 2017 May;91(5):1243-1255



# dRTA treated with ADV7103



# ADV7103 delivers clear advantages

## ADV7103



- ✓ Improved efficacy (HCO<sub>3</sub><sup>-</sup>)
- ✓ High Responder rate
- ✓ Only two intakes a day (12h)
- ✓ Full night coverage
- ✓ Normalized kalaemia
- ✓ Improved gastrointestinal tolerance
- ✓ Adapted to pediatric patients
- ✓ Tasteless
- ✓ Improved acceptability
- ✓ Improved compliance

## Standard of Care



- ✗ Sub-optimal efficacy
- ✗ High Non Responder rate
- ✗ Requires 3-6 treatments a day (<4h)
- ✗ Difficult night coverage
- ✗ potassium supplementation requirement
- ✗ Severe gastrointestinal intolerance
- ✗ Not adapted to pediatric patients
- ✗ Bad taste
- ✗ Poor acceptability
- ✗ Poor compliance

**ADV7103 addresses clear unmet need in orphan nephrology and improves efficacy and quality of life especially for pediatric patients**

# ADV7103 demonstrates superiority over SoC

- **Study results demonstrate significant efficacy**
  - Non-inferiority is clearly demonstrated on primary endpoint
  - ADV7103 is significantly superior to SoC on primary endpoint  
*P-value = 0.0047 (Per Protocol) – 0.0032 (Intention to Treat)*
  - Increasing responder rate with ADV7103
- **Efficacy was maintained after 24 months of treatment**
  - Blood bicarbonatemia in normal range in 79% of the patients
- **Excellent safety profile**
  - Only 11% of adverse events were potentially related to treatment, all of mild intensity
- **Strong improvement of quality of life over 24 months**
- **Strong compliance observed**
  - 93.3% and 89.6% of patients treated with ADV7103 were compliant after 3 and 6 months, respectively

# dRTA clinical development plan in the US



- **Initiation of US clinical operations in 2018**
  - Dr Linda Law, appointed US VP Clinical Development and Medical Affairs
  - Two project leaders appointed
  - CRO to monitor the study in the US
- **IND clearance in September 2018**
- **Health Canada clearance in October 2018**
- **Study open and actively recruiting**



- **One pivotal Phase III study in the US required by the US FDA in addition to EU clinical package for registration**
- **B23CS : Pivotal study in US & Canada**
  - 3 to 5 central sites, 12 to 18 recruiting centers to be opened
  - 40 patients to be included

# ADV7103 for Cystinuria

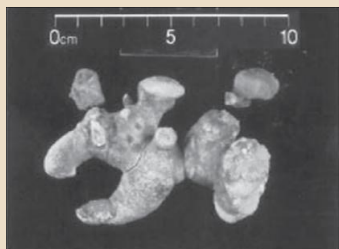




# ADV7103: A second indication - cystinuria



## Frequent Kidney Stones



*An inherited autosomal recessive disease characterized by the inability of the kidney to reabsorb cystine*

## Major Complications

**Hypertension**  
**Urinary tract infections**  
**Renal impairment**  
**Renal failure**

## Positive clinical proof of concept for Cystinuria

- Stabilizes urinary pH with only 2 doses per day
- Significantly increases pH level with a positive dose-response
- Strong supportive information linking increase of pH with solubility of cystine

## A pivotal Phase III study agreed to with EMA to support registration in EU

- Study ongoing in FR, BE
- To be opened in the UK
- 72 patients to be included

## US Strategy under review

- ODD to be submitted soon
- Meeting with FDA before year end



# ADV7103 Market potential



# One product for two diseases: dRTA and cystinuria

Market: High demand with few competitors



- **No approved first line treatment**
  - dRTA: SoC requires compounding of various unapproved products in an attempt to re-establish normal physiological functions
  - Cystinuria: SoC is diet, hyperdiuresis and compounding of various alkalisating unapproved products administered every 4 to 6 hours
- SoC induces **severe complications** in the gastro-intestinal tract
- Not adapted for **pediatric use**
- **Poor compliance**



## ADV7103 close to market for dRTA (one-year lag for Cystinuria)



MA approval S2 2020  
 Ongoing market access dossier 2019  
 Build commercial organization in EU 5 2019 - 2020

Product launch  
*Early 2021*



2019 – 2020 Pivotal Phase III trial

FDA filing and review: 2021

Product launch  
 2022

# One product for two diseases: dRTA and cystinuria

## Two rare/orphan indications



### Addressable Global population



dRTA (genetic and acquired)

Approx. 30,000<sup>1</sup>

Approx. 20,000<sup>1</sup>

Cystinuria

Approx. 70,000<sup>2</sup>

Approx. 20,000 – 30,000<sup>2,3</sup>



## Significant unmet medical needs



- Unregistered Standard of Care (SoC) requires 3 to 6 doses per 24 hours, resulting in sleep disruption
- Lack of compliance adversely affects treatment efficacy
- Direct impact on quality of life, especially for pediatric patients

1: Low range prevalence considered by the EMA for ODD (EU/3/17/1888)

2: Eggermann T. and al, Cystinuria: an inborn cause of urolithiasis, Orphanet Journal of Rare Diseases 2012; 7:19

3: NORD cystinuria

Source: Company information, ODD (EU/3/17/1888), European Medicines Agency, U.S. National Library of Medicines

# dRTA : a rare and severe sub-optimally treated disease with short and long terms consequences **affecting a limited population**



## dRTA Treated population

> 23 000<sup>1</sup>

> 14 300<sup>2,3</sup>

Primary dRTA

> 5 080<sup>1</sup>

> 1 216<sup>2</sup>

Secondary dRTA

> 18 011<sup>1</sup>

Approx. 13 115<sup>3</sup>

ISPOR May 2019

1: distal Renal Tubular Acidosis, a rare renal condition that is often undiagnosed: UK study using CPRD database (syneos)

2: Estimate of prevalence of primary distal Renal Tubular Acidosis among the US population with employer-sponsored health insurance (stratevi)

ACR 2019

3: Estimate of Prevalence of Secondary Distal Renal Tubular Acidosis Among Patients with Sjogren's Syndrome and Systemic Lupus Erythematosus in a US Population with Employer-Sponsored Health Insurance" (stratevi)

# Cystinuria: well defined debilitating and painful disease leading to major renal impairments with guidelines but with limited results on a very demanding population



Cystinuria diagnosed/treated population	[24 000 – 32 000]	[10 000 – 45 000]
Advicenne CPRD	Approx. <b>24 000</b> <sup>1</sup>	
Advicenne US data base		-
Company 10K		10 000 – 12 000
RKSC		33 000
NORD report		[32 000- 45 000]
DelveInsight	Approx 32 000	Approx. 23 000
<b>Severe Cystinuria population deemed retained</b>	<b>Approx. 15 000</b>	<b>[7 200 – 10 000]</b>

ISPOR MAY 2019

1: Cystinuria, a rare renal condition that is often undiagnosed: prevalence UK study using CPRD database (syneos)

# Commercial strategy

## European approval and first product launches

- **Build a robust pharmacoeconomic core dossier to support orphan drug pricing of ADV7103 (EU and US) for both indications**
  - Target population
  - Value proposition
  - Pricing strategy

- **Build commercial organization in EU5 (France, Germany, Italy, Spain, UK)**

- Limited prescribing centers
  - Develop KOL relationships
  - Communicate among the specialist community
- Limited marketing and sales resources required: 4-6 sales reps per country
- Good overlap between dRTA and Cystinuria prescribers
- Establish platform for additional products

- **Establish partnerships to generate sales outside the EU5**

- US: Clinical development and registration by Advicenne, US strategy under review
- Other EU countries: European Market Authorization by Advicenne, commercialized by partners
- RoW: Market authorization and registration by partner



# Broad IP estate offers protection through 2031

IP number	Description	Geographies	Expiry date <sup>1</sup>
2640365 <sup>2</sup>	<ul style="list-style-type: none"> <li>▪ Solid pharmaceutical composition of the granules (tablets) of potassium citrate (including its particular release profile)</li> <li>▪ Medication in treatment/prevention of urinary lithiasis and related diseases</li> </ul>	<ul style="list-style-type: none"> <li>▪ 15 European countries including EU5</li> <li>▪ Japan</li> <li>▪ United States</li> </ul>	Nov 18, 2031
2640364 <sup>2</sup>	<ul style="list-style-type: none"> <li>▪ Composition of the bicarbonate salt granules (including its 12-hour continuous release profile)</li> <li>▪ Medication in treatment/prevention of urinary lithiasis and related diseases</li> </ul>	<ul style="list-style-type: none"> <li>▪ 15 European countries including EU5</li> <li>▪ Japan</li> <li>▪ United States</li> </ul>	Nov 18, 2031
2640363 <sup>2</sup>	<ul style="list-style-type: none"> <li>▪ Combination of bicarbonate salt and citrate salt granules (two compounds of ADV7103) and their respective release profile</li> <li>▪ Medication in treatment/prevention of Cystinuria</li> </ul>	<ul style="list-style-type: none"> <li>▪ 15 European countries including EU5</li> <li>▪ Japan</li> <li>▪ United States</li> <li>▪ Canada</li> <li>▪ Other countries</li> </ul>	Nov 18, 2031

1: Priority date is Nov 18, 2010

2: IP number of the European patents



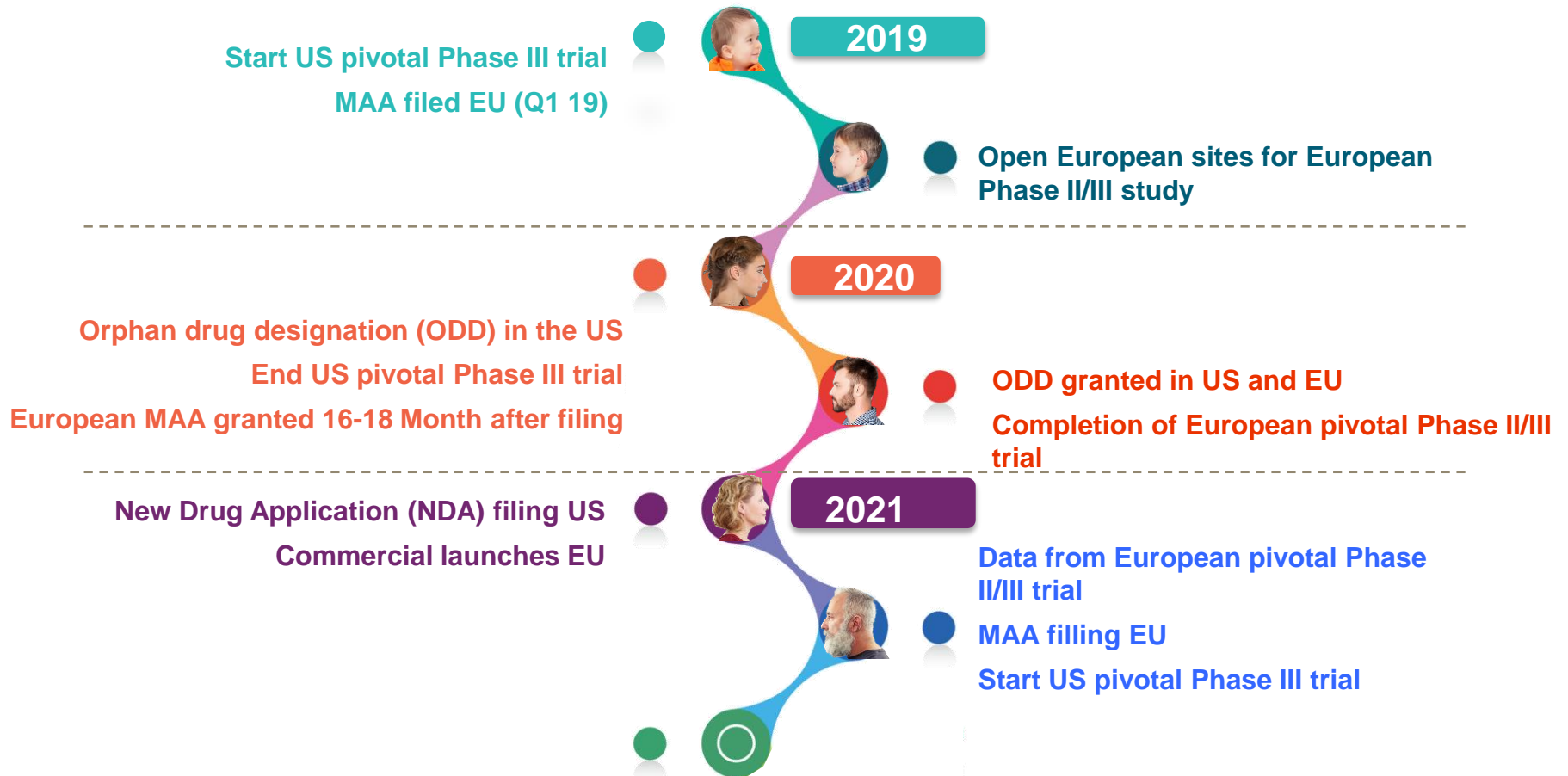
# Financial Highlights

- **Approximately € 26 million\* (\$30 million) in cash and cash equivalents as of December 31, 2018**
  - €27 million (\$31 million) raised in successful IPO in December 2017
- Streamlined operations with a headcount of 32 (21 in R&D)
- Cash sufficient to fund operations through numerous value-creating inflection points in the next 18 months
- € 20 million debt facility authorization from EIB (July 2019)

# Upcoming value-creation milestones

ADV7103  
dRTA

ADV7103  
Cystinuria



# Euronext : ADVIC

## Company overview

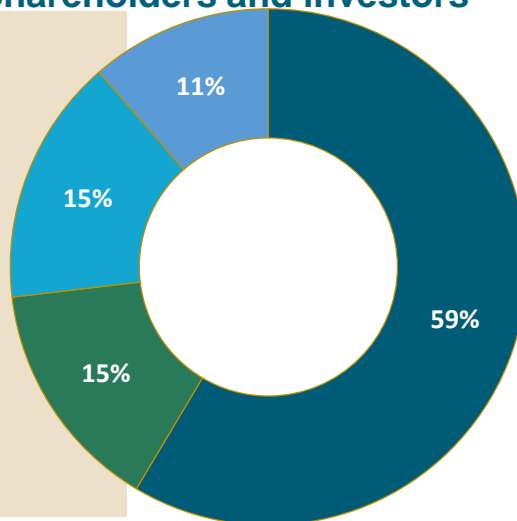
- Specialty pharmaceutical company
- Headquarters in Nîmes, France
- Founded in 2007
- Raised approx. € 30 M in private rounds
- Listing on Euronext Paris December 6, 2017 (€ 27,8 M raised)



## Analysts coverage

- Jamila Elbougri (FR)
- Anita Ye & Dylan van Haaften (ENG)
- Samir Devani (ENG)

## Shareholders and investors<sup>1</sup>



■ Private equity funds

■ HNIW<sup>2</sup>

■ Management & employees

■ Free float



1: On a fully diluted basis as of January 2018  
2: High-net-worth individuals

Source: Company information

# Summary highlights

1

## De-risked Product Portfolio

- Strong clinical data demonstrates **superiority of ADV7103 in dRTA over SoC**,
- **European Marketing authorization submitted to the EMA in March 2019**
- **IND open for pivotal Phase III trials in the US**
- **MA granted in EU** for Ozalin® in moderate sedation

2

## “Niche-buster” Potential

- **ADV7103 is a child-friendly treatment for two orphan nephrology indications**
- “Niche-buster” potential in well defined populations with no approved treatments in dRTA
- ADV7103 to drive company’s value-generating news flow over the next 18-24 months

3

## Proven and Unique Strategy

- **Unique R&D approach driven by input from Key Opinion Leaders**
- Track record of successful product development, notably with Ozalin®
- Focus on treatments and their commercialization suitable for both children and adults

4

## Experienced Management Team

- **Experienced management team with years of successful performance in drug development, regulatory strategy and commercialization**

**Thank you**

**[www.advicenne.com](http://www.advicenne.com)**

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