



# Immunic Therapeutics

## Developing Selective Oral Drugs in Immunology



NASDAQ: IMUX  
BioEquity – May 20<sup>th</sup> 2019

# Cautionary Note Regarding Forward-Looking Statements

- Certain statements contained in this presentation regarding matters that are not historical facts, are forward-looking statements within the meaning of Section 21E of the Securities and Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, known as the PSLRA. These include statements regarding management’s intentions, plans, beliefs, expectations or forecasts for the future, and, therefore, you are cautioned not to place undue reliance on them. No forward-looking statement can be guaranteed, and actual results may differ materially from those projected. Immunic undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise, except to the extent required by law. We use words such as “anticipates,” “believes,” “plans,” “expects,” “projects,” “future,” “intends,” “may,” “will,” “should,” “could,” “estimates,” “predicts,” “potential,” “continue,” “guidance,” and similar expressions to identify these forward-looking statements that are intended to be covered by the safe-harbor provisions of the PSLRA.
- Such forward-looking statements are based on our expectations and involve risks and uncertainties; consequently, actual results may differ materially from those expressed or implied in the statements due to a number of factors, including, but not limited to, risks relating to strategy, future operations, future financial position, future revenue, projected expenses, prospects, plans and objectives of management. Risks and uncertainties that may cause actual results to differ materially from those expressed or implied in any forward-looking statement include, but are not limited to: Immunic’s plans to develop and commercialize its product candidates, including IMU-838, IMU-935 and IMU-856; the timing of initiation of Immunic’s planned clinical trials; expectations regarding potential market size; the timing of the availability of data from Immunic’s clinical trials; the timing of any planned investigational new drug application or new drug application; Immunic’s plans to research, develop and commercialize its current and future product candidates; Immunic’s ability to successfully collaborate with existing collaborators or enter into new collaborations, and to fulfill its obligations under any such collaboration agreements; the clinical utility, potential benefits and market acceptance of Immunic’s product candidates; Immunic’s commercialization, marketing and manufacturing capabilities and strategy; Immunic’s ability to identify additional products or product candidates with significant commercial potential; developments and projections relating to Immunic’s competitors and industry; the impact of government laws and regulations; Immunic’s ability to protect its intellectual property position; Immunic’s listing on The Nasdaq Capital Market; expectations regarding the capitalization, resources and ownership structure of the company; the executive and board structure of the company; Immunic’s estimates regarding future revenue, expenses, capital requirements and need for additional financing; and the nature, strategy and focus of the company.
- Forward-looking statements included in this presentation are based on information available to Immunic as of the date of this presentation. Immunic undertakes any obligation to update such forward- looking statements to reflect events or circumstances after the date of this presentation.



## Our Vision

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We are developing new therapies with best-in-class potential for the treatment of chronic inflammatory and autoimmune diseases.

# Key Investment Highlights

Three potential best-in-class oral therapies

- IMU-838: Potent DHODH inhibitor currently tested in two phase 2 studies
- IMU-935: High demand target with substantial potential
- IMU-856: Novel target – potentially disease modifying for IBD

Strong IP position

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High value markets

- Autoimmune & immunology with **high unmet medical needs**
- **Large markets** for IBD, MS and psoriasis with multibillion USD sales potential
- Well financed with cash runway to near-term value-driving events

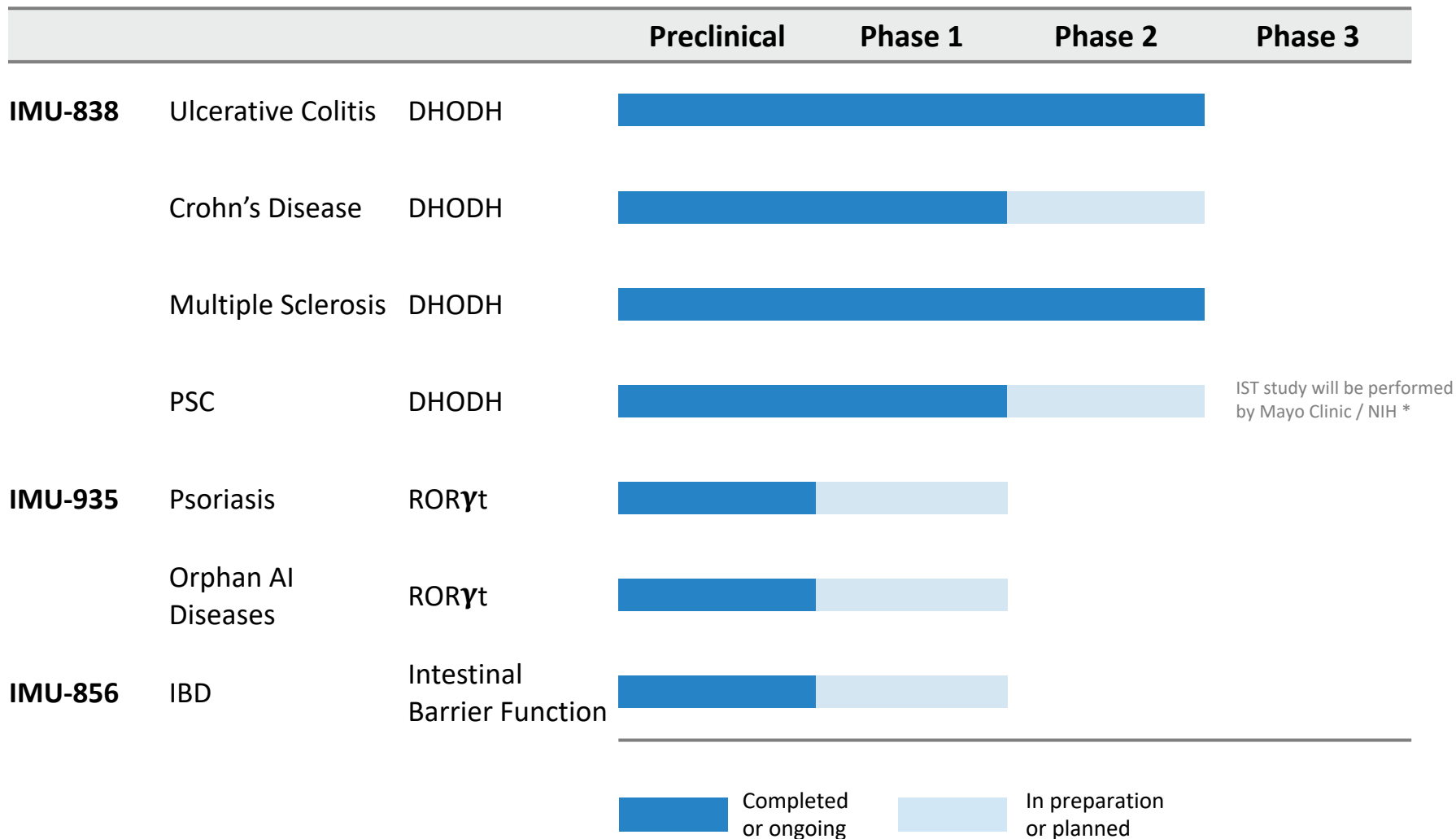
Experienced global management team

- Experienced management team with strong track record and over 70 years of leadership experience in the pharmaceutical industry
- Headquartered in the US with R&D operations in Munich, Germany

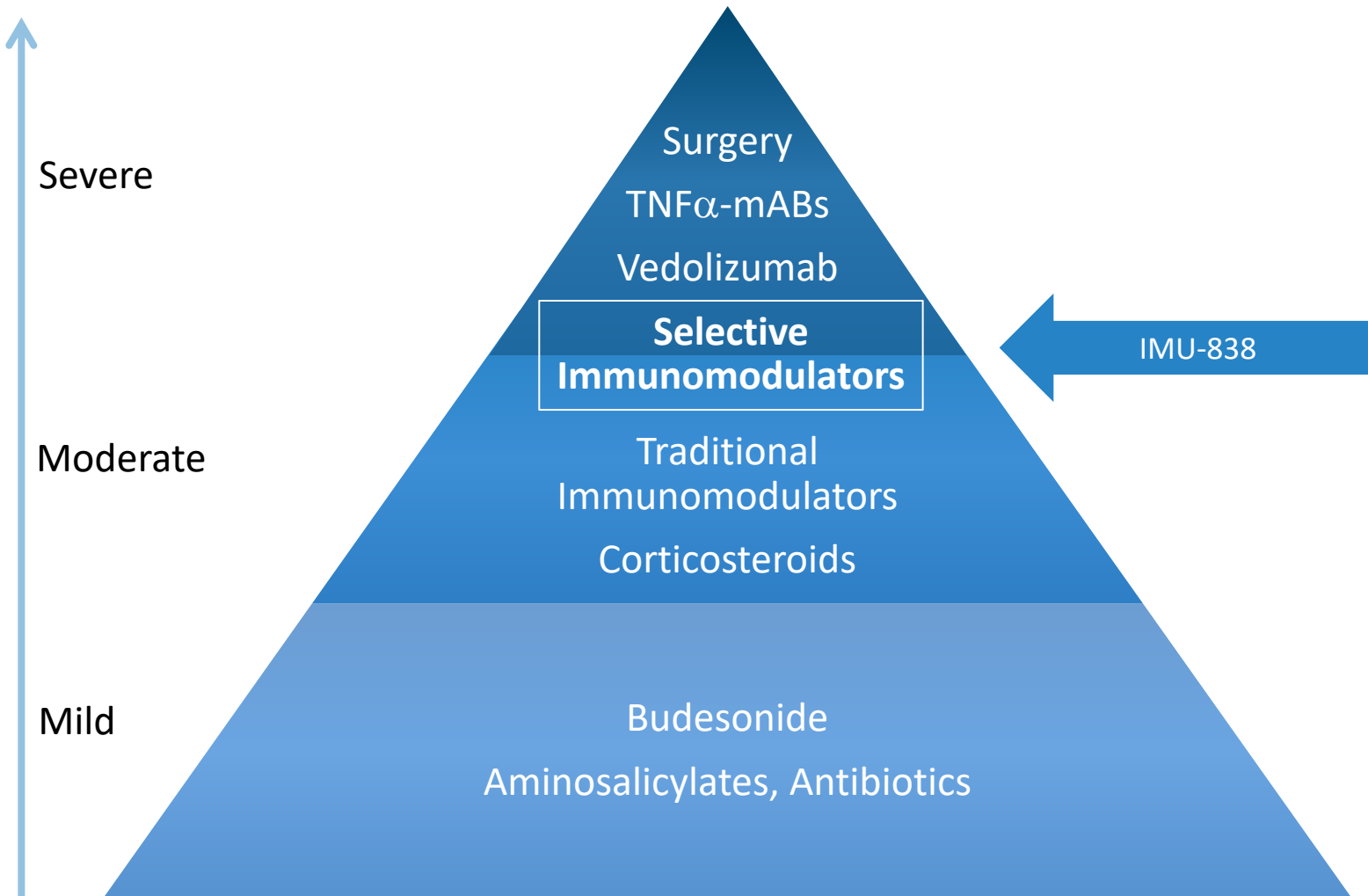
Successful deal created IMUX

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- Shares outstanding: 10.1 million (as of April 12, 2019)
- Cash position: 46.7 million USD (as of April 12, 2019)
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# Development Pipeline

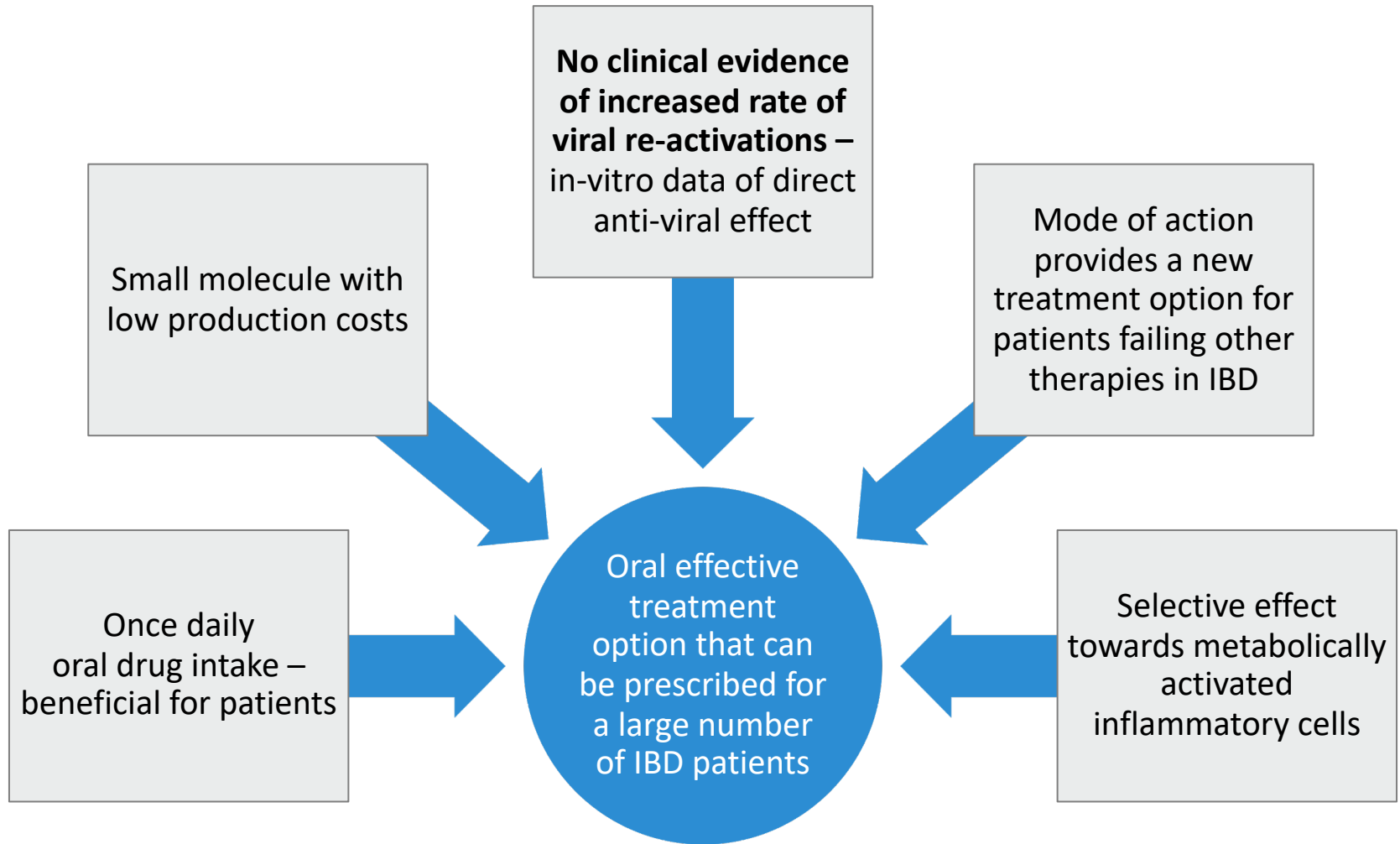


# IBD: Therapeutic Pyramid



[1] Present, Daniel H., et al. *Annals of internal medicine* 1989; 111.8: 641-649.  
[2] Dayharsh, Gerald A., et al. *Gastroenterology* 2002; 122.1: 72-77.  
[3] Winthrop, Kevin L., et al. *Arthritis & rheumatology* 2014; 66.10: 2675-2684.  
[4] Roda, Giulia, et al. *Clinical and translational gastroenterology* 2017; 7.1: e135.

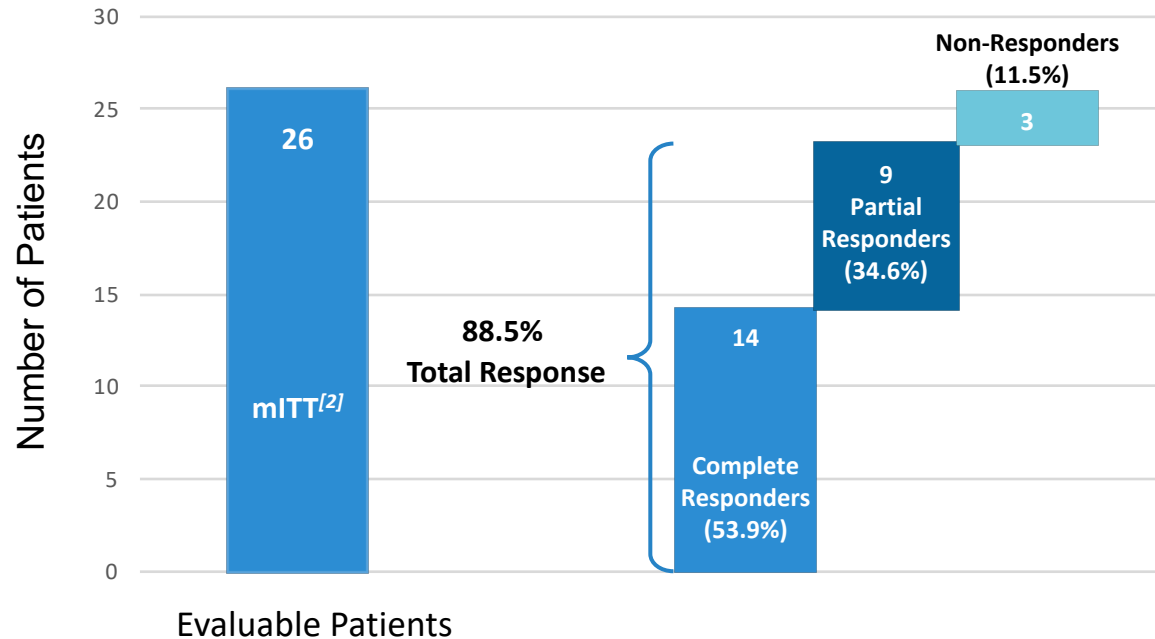
# IMU-838: Key Strengths That Address Limitation of Existing Therapies



# IBD Phase 2a ENTRANCE: Primary Efficacy Results

## ENTRANCE study:<sup>[1]</sup>

- Study performed with active moiety of vidofludimus
- All patients failed two attempts to taper down steroids
- Open-label
- Primary efficacy endpoint: steroid-free/steroid-reduced remission (week 12)



IMU-838 had response rates of:  
85.7% in Crohn's disease  
91.7% in ulcerative colitis

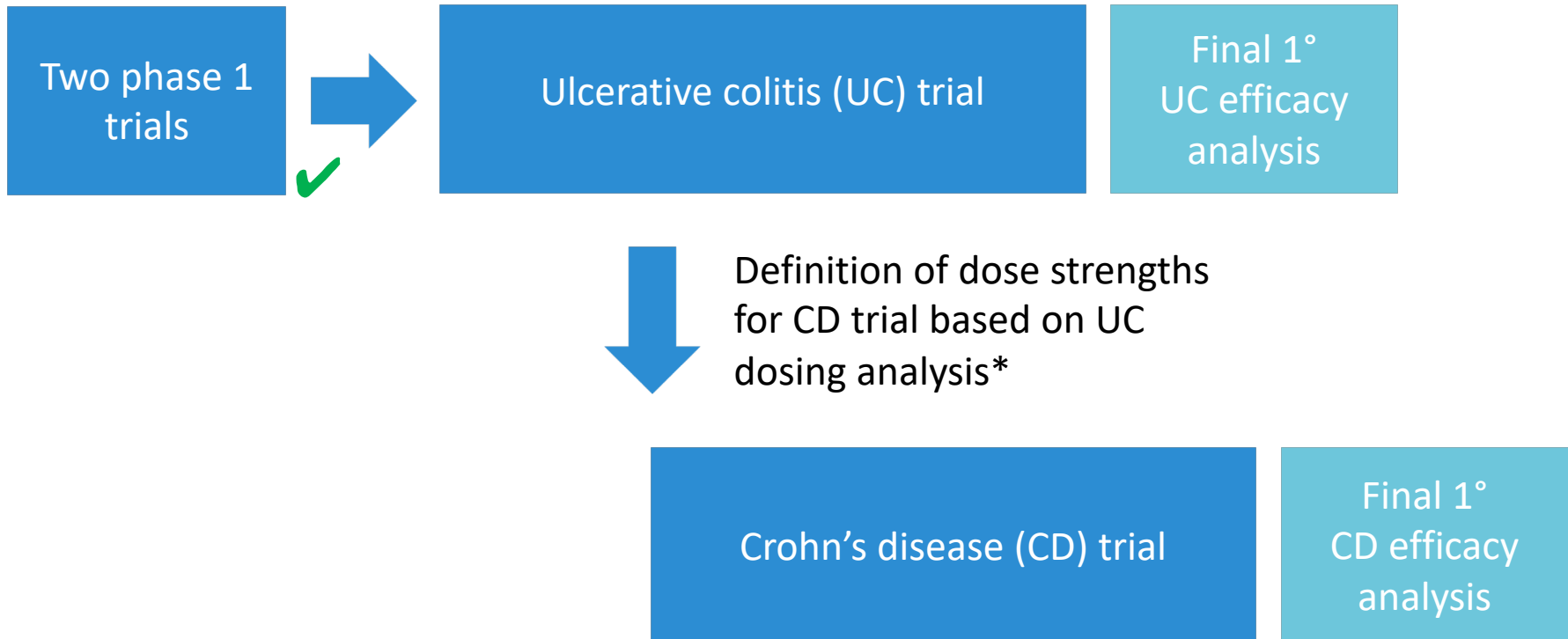




# IMU-838: Clinical Phase 2 in UC Ongoing

- Active IND in the US
- Currently more than 60 active sites in 8 countries
  - USA, Western, Central and Eastern Europe
- Study design\*
  - Central endoscopy assessment for active disease for study eligibility in order to reduce placebo rate
  - Endpoint combines proportion of patients with symptomatic remission and endoscopic healing at week 10
  - Number of patients estimated to be 195
- Timelines
  - Study started in April 2018
  - Currently estimated to deliver top-line data in Q2/2020

# IBD: Overall Study Program





# IMU-838: Phase 2 Proof-of-Concept Study in PSC

- Immunic is collaborating with a prominent hepatologist in the US and two Mayo Clinic locations
  - PI received a grant approval letter from the NIH for performance of an investigator sponsored trial with IMU-838 in patients with primary sclerosing cholangitis (PSC)
  - Single-arm, exploratory study\*
  - Primary endpoint: change in serum alkaline phosphatase (ALP) at 6 months vs. baseline
  - Dosing: 30 mg IMU-838 qd
  - Investigator IND for IMU-838 and IRB approval already established
- Immunic to provide clinical trial material for the patients to clinical sites
- Start of enrollment expected soon
- Positive data should enable immediate start of a pivotal trial in this orphan indication by Immunic

# MS Opportunity

Aubagio® (teriflunomide) is currently the **only approved DHODH inhibitor** for MS

Despite its substantial side effects, Aubagio® reached sales of **around 1.8 billion USD in 2018<sup>[1]</sup>**

**IMU-838** has the potential to be a **best-in-class DHODH inhibitor** and **MS drug** due to improved safety and pharmacokinetics profile

# IMU-838: Potential Advantages in MS

- Potential advantages of IMU-838 therapy compared with Aubagio® (teriflunomide):
  - Selectivity and sensitivity<sup>[1] [2] [3] [4]</sup>
  - Pharmacokinetic parameters<sup>[5] [6]</sup>
  - Safety profile<sup>[7] [8] [9] [10]</sup>
  - Drug-drug interaction potential<sup>[6]</sup>
- Phase 2 trial in patients with relapsing-remitting multiple sclerosis (RRMS) started in February 2019\*
- Primary endpoint: cumulative number of combined unique active (CUA) MRI lesions, up to week 24
- Currently estimated to deliver top-line data in early 2021

[1] FDA CDER Pharmacological Review Teriflunomide 2012

[2] Merrill JE, et al. J Neurol 256: 89-103, 2009

[3] Büttner R, et al. Blood 130 (suppl 1): 4426 abstract, 2017

[4] Cada DJ, et al. Hosp Pharm 48: 231-240, 2013 )

[5] FDA CDER Clinical Pharmacology and Biopharmaceutics Review Teriflunomide 2012

[6] Summary of Product Characteristics Aubagio®

[7] SmPC Aubagio®

[8] FDA CDER Medical Review Teriflunomide, 2012

[9] O'Connor et al, NEJM 365: 1293-1303, 2011

[10] O'Connor et al, NEJM 365: supplementary appendix, 2011

# IMU-935

Unique ROR $\gamma$ t-Inverse Agonist



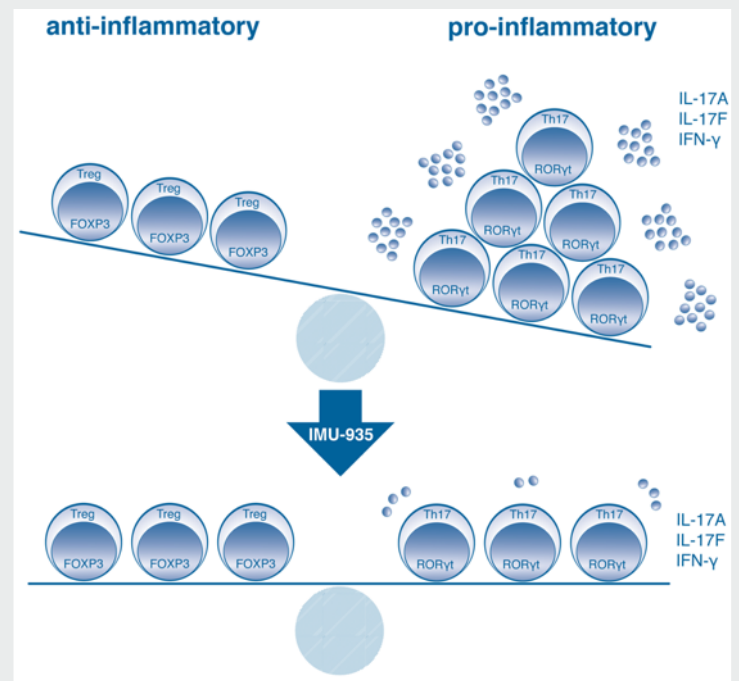
# Autoimmune Diseases and IMU-935

## Challenge:

- Autoimmune diseases are frequent diseases affecting millions of patients worldwide<sup>[1]</sup>
- Th17/IL-17/ROR $\gamma$ t axis is important in auto immunity related diseases<sup>[2]</sup>
- Antibodies targeting this axis successfully demonstrated this concept but bear the disadvantage of being a non-oral drug<sup>[2]</sup>

## Solution:

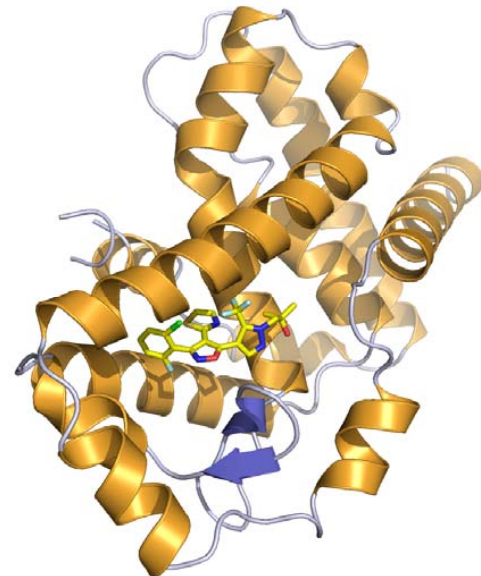
- IMU-935 is a potent small molecule targeting ROR $\gamma$ t



# IMU-935: Cytokine Inhibition in Low Nanomolar Range

- Effect of the development compound IM105935 (IMU-935) in stimulated human PBMCs
  - Read-out: effect on cytokine production after 48 h

	<b>IC<sub>50</sub> [μM]</b>
IL-17A	0.005
IL-17F	0.004
IFN <sub>γ</sub>	0.003
IL-1a and b	no inhibition
IL-4,5,6,8	no inhibition
ROR <sub>γ</sub>	24 nM (MST)
ROR <sub>γ</sub> (cellular, rep.)	20 nM
Th17 differentiation	100 nM



Resolution 2.6 Å of a closely related derivative compound binds to hydroxycholesterol binding site





## IMU-935: Project Status

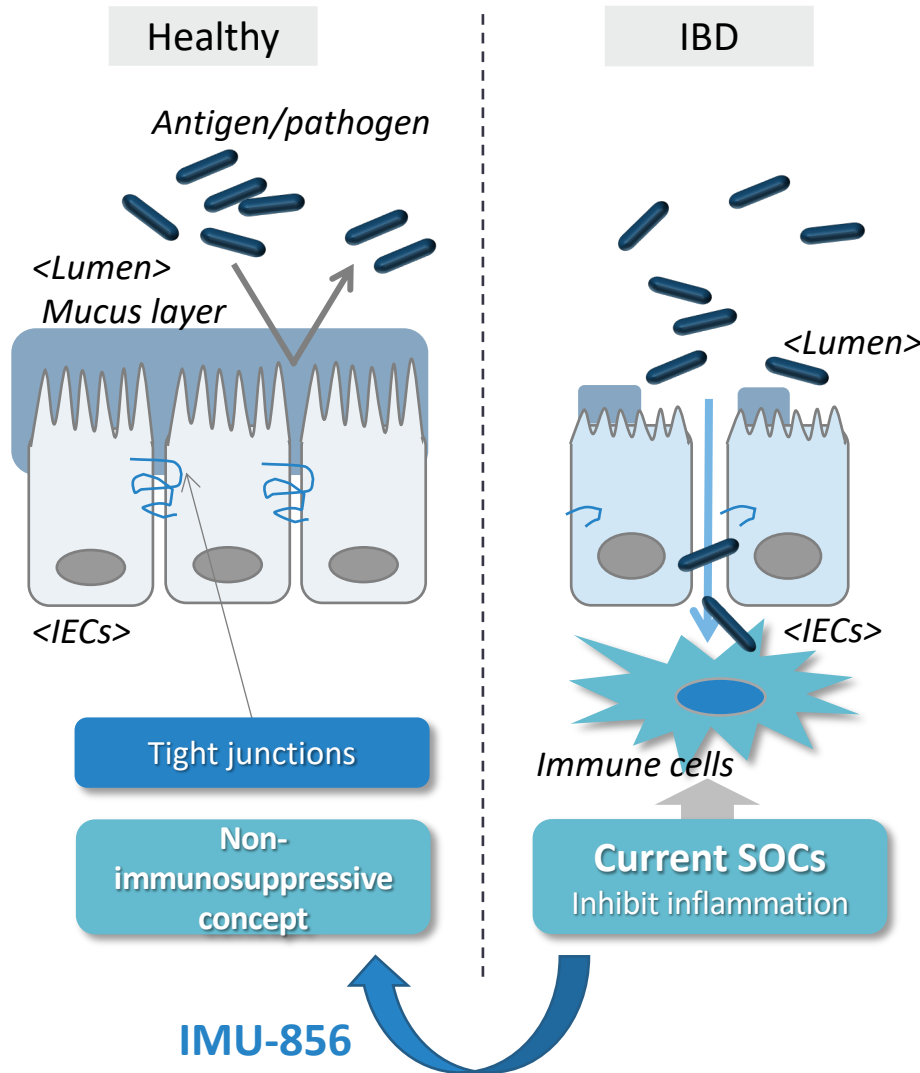
- Preclinical IND enabling studies currently ongoing
- Start of clinical phase 1 test of IMU-935 in healthy volunteers planned in September 2019
- Further options for clinical development
  - Test of IMU-935 in phase 1b trial in patients with mild to moderate psoriasis – would potentially offer early read-out of activity based on four-week treatment
  - Identification of suitable orphan indications with high unmet medical need for accelerated development

# IMU-856

Restoring Intestinal Barrier Function



# Hypothesis: Bacterial Penetration Through Weakened Cellular Adhesion Causes Immune Overstimulation



**IMU-856 modulator concept:  
Ameliorates barrier function**

- ✓ Accelerates **mucosal healing** with standard of care due to its new mode of action
- ✓ Enhances **maintenance of remission**, that is the highest unmet medical need in IBD



## IMU-856: Development Concept

- Main indication: Crohn's disease (CD)
- Clinical development concept
  - Phase 1 single and multiple ascending dose studies are expected to start in H1/2020
- IMU-856 has substantial further potential for orphan diseases outside IBD
- Product is covered by a global PCT patent application

# Summary & Finance



# Financial Status and Cash Runway

- Nasdaq: **IMUX**
- Headquarters in San Diego – plan to relocate to East Coast in 2019
- Shares outstanding: 10.1 million (as of April 12, 2019)
- Cash position of 46.7 million USD (as of April 12, 2019)
- Cash runway expected to be sufficient beyond important value inflection points into Q3/2020
- Immunic’s reverse takeover with Vital Therapies was supported by a committed investor base investing approximately 30 million USD in April 2019



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