Immunic THERAPEUTICS

Immunic Therapeutics

Developing Selective Oral Drugs in Immunology

Company Overview

Needham Healthcare Conference, April 10th, 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. Vital Therapies and Immunic undertake 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 the completion of the transaction, including the need for Vital Therapies stockholder approval and the satisfaction of closing conditions; the anticipated financing to be completed concurrently with the closing of the transaction; the cash balance of the company following the closing of the transaction and the financing, and the expectations with respect thereto; the business and prospects of the company following the transaction; and the ability of Vital Therapies to remain listed on the Nasdaq Capital Market. Risks and uncertainties related to Immunic 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; and Immunic's estimates regarding future revenue, expenses, capital requirements and need for additional financing following the proposed transaction.

- These risks, as well as other risks associated with the transaction, are more fully discussed in the final proxy statement/prospectus that is included in the registration statement that was filed by Vital Therapies with the SEC in connection with the proposed transaction. Additional risks and uncertainties are identified and discussed in the "Risk Factors" section of Vital Therapies' Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and other documents filed from time to time with the SEC. Forward-looking statements included in this presentation are based on information available to Vital Therapies and Immunic as of the date of this presentation. Neither Vital Therapies nor Immunic undertakes any obligation to update such forward- looking statements to reflect events or circumstances after the date of this presentation.

Additional Information and Where You Can Find It

Additional Information About the Proposed Transaction between Vital Therapies, Inc. and Immunic AG and Where to Find it

- This communication is being made in respect of a proposed transaction involving Immunic AG and Vital Therapies, Inc. Vital Therapies and Immunic intend to file relevant materials with the U.S. Securities and Exchange Commission (the "SEC") and Vital Therapies has filed a registration statement on Form S-4 and a final proxy statement/prospectus. The registration statement was declared effective by the SEC on February 14, 2019, and the definitive proxy statement was first mailed or otherwise made available to Vital Therapies stockholders on February 19, 2019 in connection with the Vital Therapies special meeting of stockholders to be held to vote on matters relating to the proposed transaction. The proxy statement/prospectus contains information about Vital Therapies, Immunic, the proposed transaction, and related matters. STOCKHOLDERS ARE URGED TO READ THE FINAL PROXY STATEMENT/PROSPECTUS (INCLUDING ANY AMENDMENTS OR SUPPLEMENTS THERETO) AND OTHER DOCUMENTS FILED WITH THE SEC CAREFULLY IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE, AS THEY CONTAIN IMPORTANT INFORMATION THAT STOCKHOLDERS OF VITAL THERAPIES SHOULD CONSIDER BEFORE MAKING A DECISION ABOUT THE PROPOSED TRANSACTION AND RELATED MATTERS. In addition to receiving the final proxy statement/prospectus and proxy card by mail, Vital Therapies stockholders can also obtain the final proxy statement/prospectus, as well as other filings containing information about Vital Therapies, without charge, from the SEC's website (http://www.sec.gov) or, without charge, by directing a written request to: Vital Therapies, Inc., 15222-B Avenue of Science, San Diego, CA 92128, Attention: Investor Relations.

No Offer or Solicitation

- This communication is not intended to and does not constitute an offer to sell or the solicitation of an offer to subscribe for or buy or an invitation to purchase or subscribe for any securities or the solicitation of any vote or approval in any jurisdiction in connection with the proposed transaction or otherwise, nor shall there be any sale, issuance or transfer of securities in any jurisdiction in contravention of applicable law. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended.

Participants in Solicitation

- Vital Therapies and its executive officers and directors may be deemed to be participants in the solicitation of proxies from Vital Therapies' stockholders with respect to the matters relating to the proposed transaction. Immunic may also be deemed a participant in such solicitation. Information regarding Vital Therapies' executive officers and directors is available in Vital Therapies' proxy statement on Schedule 14A for its 2018 annual meeting of stockholders, filed with the SEC on April 12, 2018. Information regarding any interest that Vital Therapies, Immunic or any of the executive officers or directors of Vital Therapies or Immunic may have in the transaction with Immunic is set forth in the final proxy statement/prospectus that Vital Therapies has filed with the SEC in connection with its stockholder vote on matters relating to the proposed transaction. Vital Therapies stockholders are able to obtain this information by reading the proxy statement/prospectus.

Vital Therapies – Immunic Combination

- Follows Vital Therapies' **extensive review of strategic alternatives**
- **All-stock transaction**: Vital Therapies to acquire all outstanding shares of Immunic in exchange for newly issued shares of Vital Therapies common stock; Immunic AG will become a wholly-owned subsidiary of Vital Therapies
- **Vital Therapies stockholders** are expected to own approximately **11%** and **Immunic stockholders** approximately **89%** of the company upon completion of the proposed transaction
- Current shareholders of Immunic committed to **invest 26 million EUR** at closing of the transaction
- Transaction has been **approved by the boards directors and stockholders** of both companies
- Expected **to close in Q2 2019**, subject to closing conditions
- Company expected to operate under the name **Immunic, Inc.** and trade on the NASDAQ Stock Market under the **symbol "IMUX"**

Vital Therapies – Immunic Leadership

- Company will be led by an experienced management team

Daniel Vitt, PhD
CEO

Andreas Muehler, MD, MBA
CMO

Hella Kohlhof, PhD
CSO

Manfred Groeppel, PhD
COO

- Board to be comprised of 5 directors, 4 from Immunic and 1 from Vital Therapies

Daniel Vitt, PhD
CEO of Immunic

Joerg Neermann, PhD
LSP

Vincent Ossipow, PhD, CFA
Omega Funds

Jan Van den Bossche
Fund+

Duane Nash, MD, JD, MBA
CEO of Vital Therapies

- Corporate HQ will be located in the US with R&D site based in Munich, Germany

Immunic Company and Product Overview

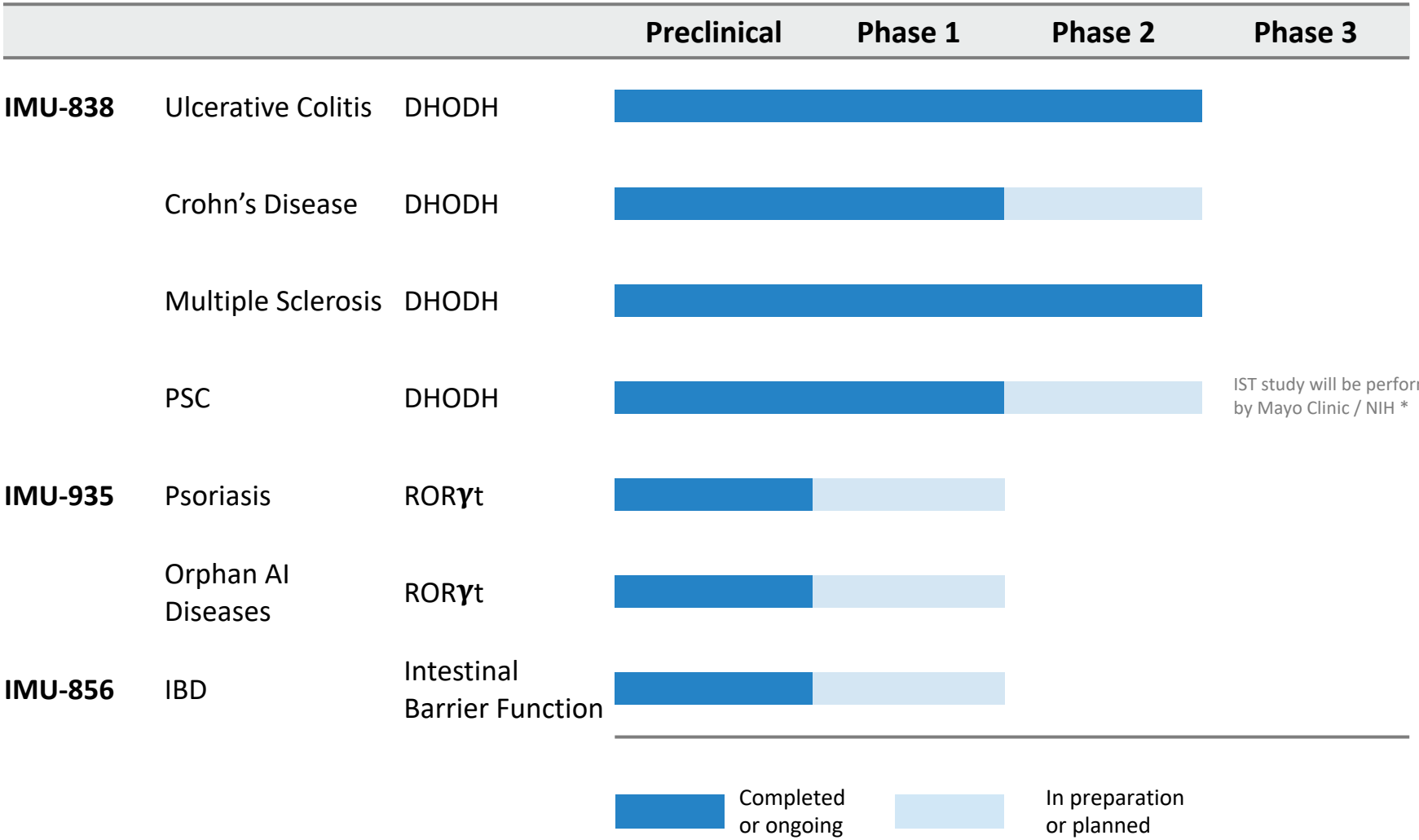
Our Vision

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 therapies	• Deep and diversified product pipeline, orally available and potent drugs • IMU-838: Potent DHODH inhibitor well-tolerated in prior clinical studies • IMU-935: High demand target with substantial deal potential • IMU-856: Novel target – potentially disease modifying for IBD
Strong IP position	• IMU-838: Patent application coverage until 2038 • IMU-935: New compound IP filed in 2017 • IMU-856: Compound patent filed in 2018
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 management team	• Experienced management team with strong track record and over 70 years of leadership experience in the pharmaceutical industry • Focused on efficient use of capital to maximize investor return
Supported by experienced life science investors	• Strong support of sophisticated board members and life science investors • LSP as lead investor • Omega Funds, Fund+, LifeCare Partners, High-Tech Gründerfonds, Bayern Kapital and IBG as further investors

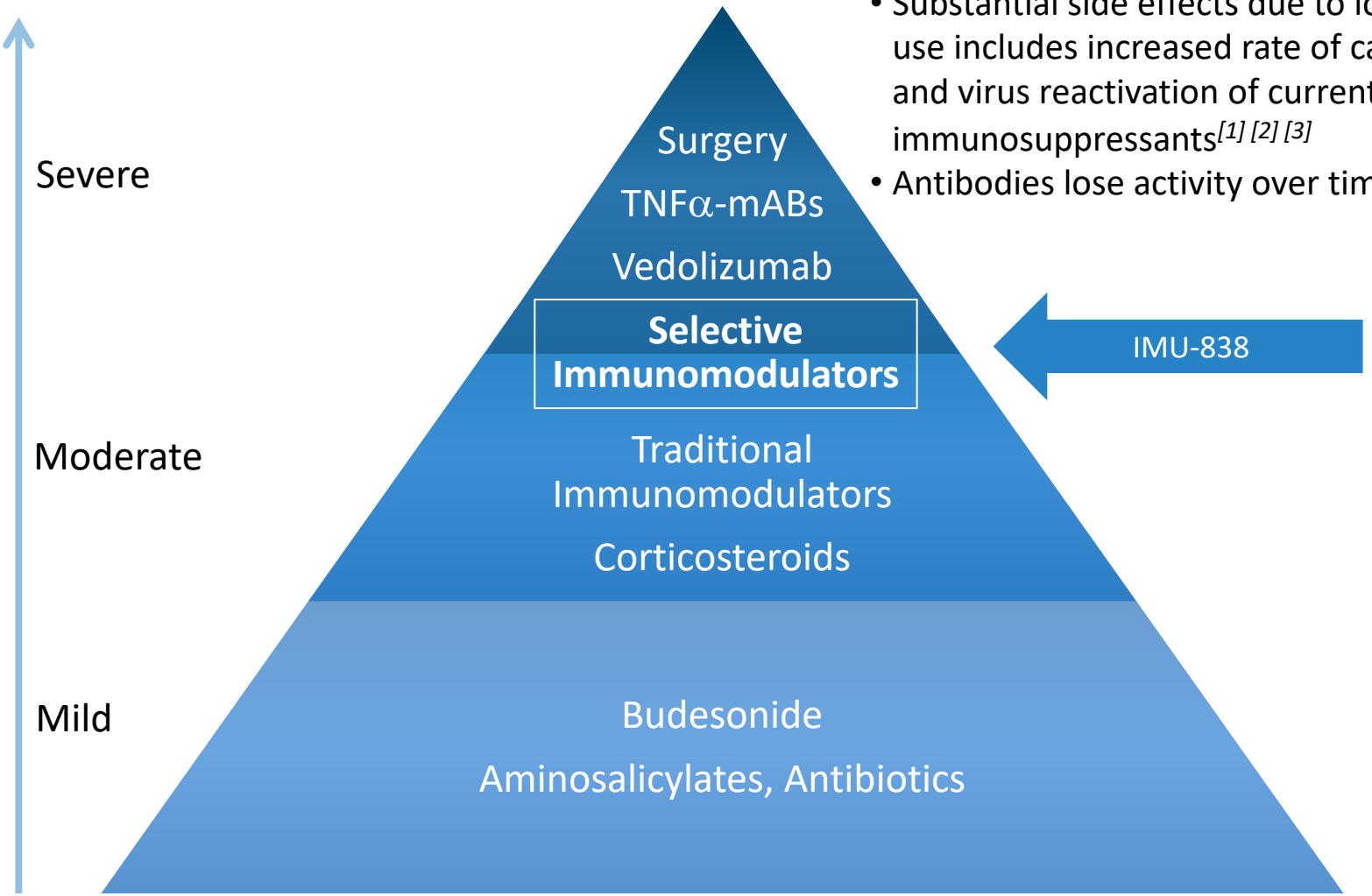
Development Pipeline



IBD: Therapeutic Pyramid

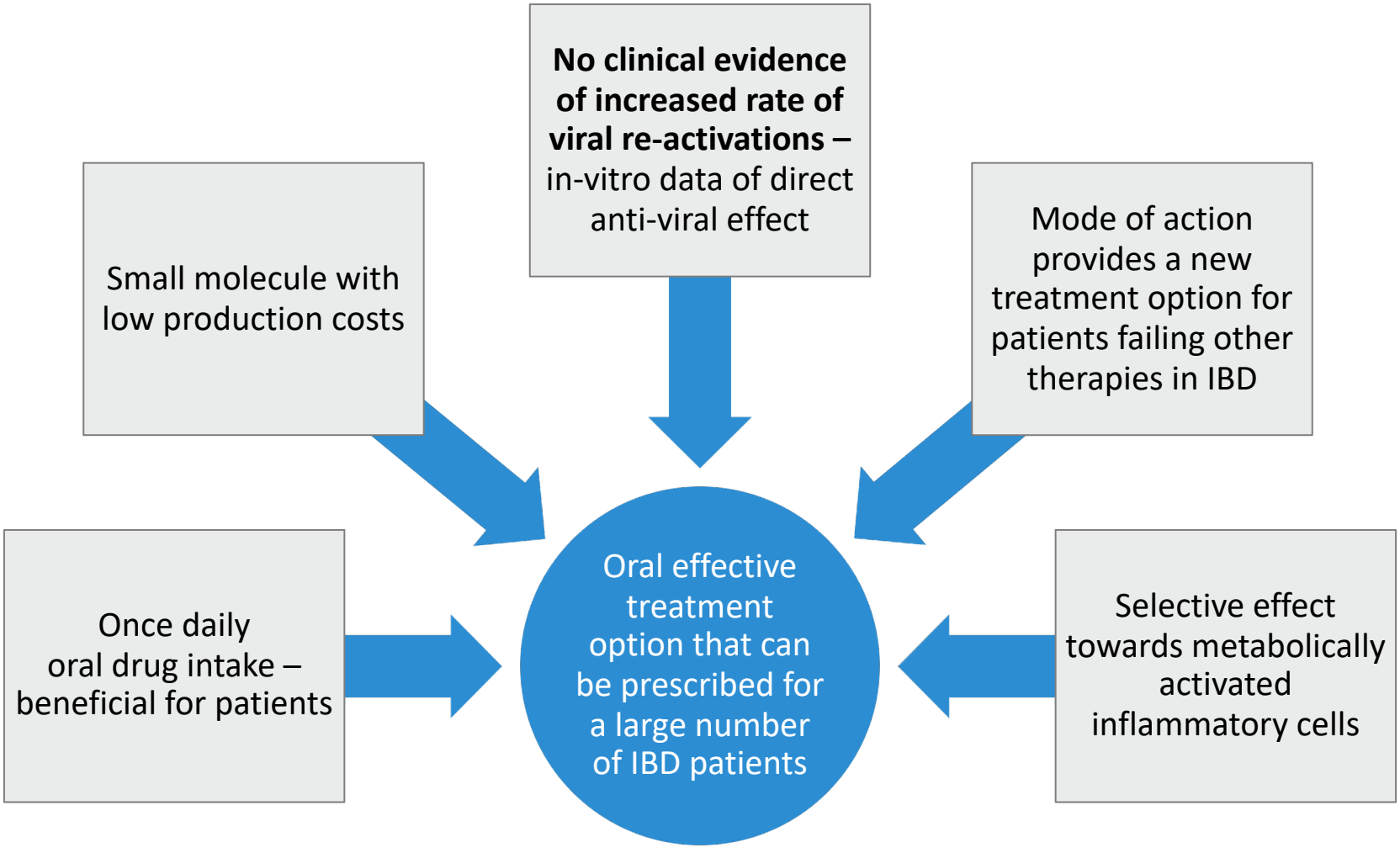
Current solutions have limitations

- Substantial side effects due to long-term use includes increased rate of cancer risk and virus reactivation of currently used immunosuppressants[1] [2] [3]
- Antibodies lose activity over time[4]



[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.

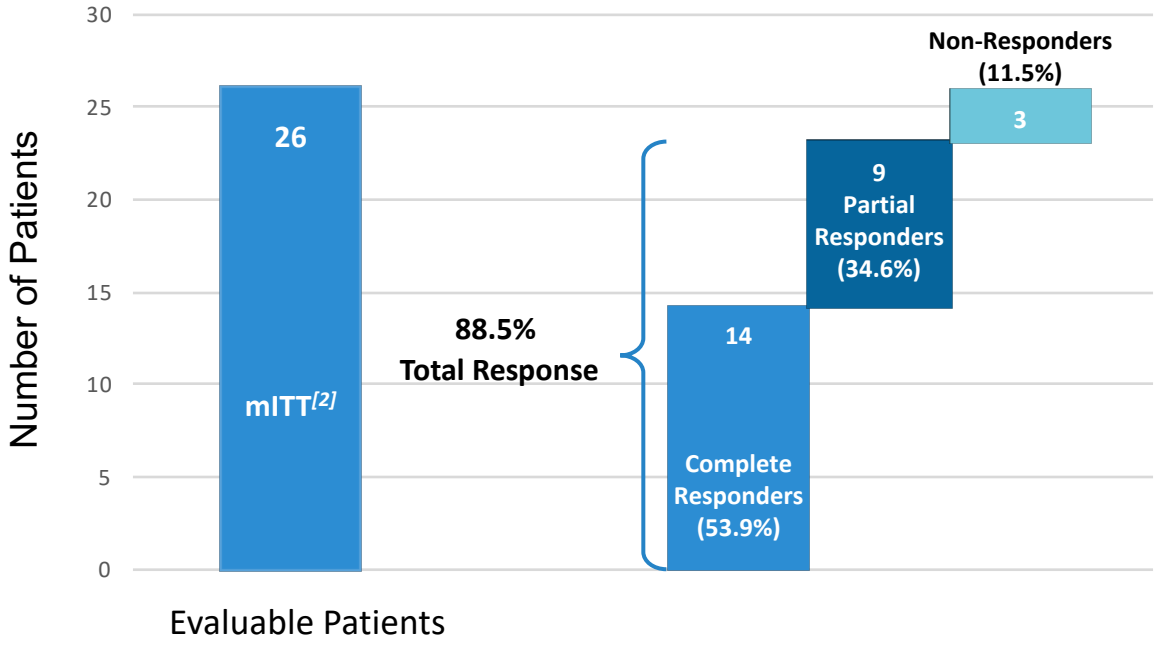
IMU-838: Key Strengths That Address Limitation of Existing Therapies



IBD Phase 2a ENTRANCE: Primary Efficacy Results

ENTRANCE study:[1]

- Study performed with active moiety of vidofludimus
- Patients with steroid-dependent IBD disease
- 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

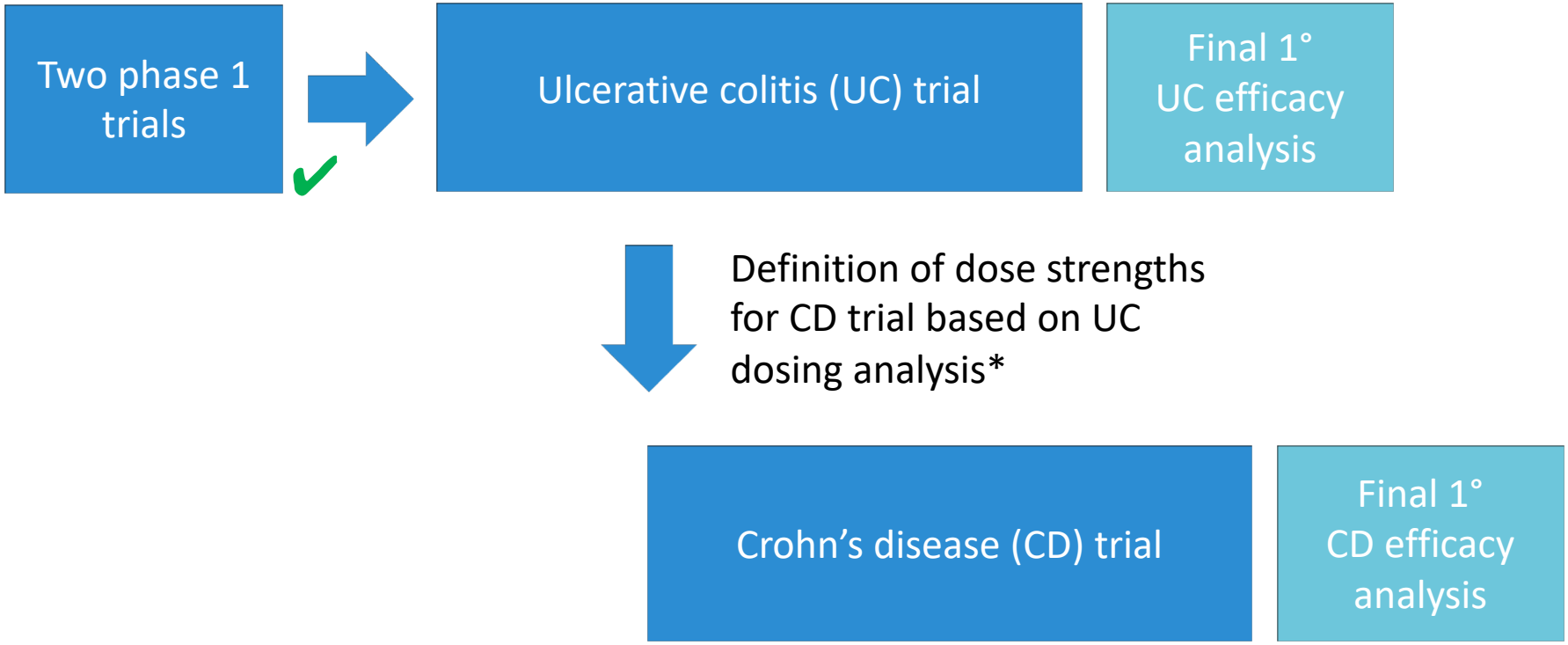
[1] Herrlinger et.al., 2011, Gastroenterology *140*:588.
[2] mITT: modified intent to treat

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
  - Composite endpoint: Proportion of patients with both symptomatic remission and endoscopic healing at week 10
- Despite competitive study landscape in IBD
  - Study enrollment is on track
  - Targeted to end enrollment in early 2020

* clinicaltrials.gov: NCT03341962

IBD: Overall Study Program



* An interim dosing analysis is expected to be performed mid-2019 with the aim of potentially eliminating an ineffective dose or an intolerant dose, and to continue the study in a more efficient manner using fewer active dose groups.

IMU-838: Clinical Phase 2 Trial in Crohn's Disease Expected to Start in mid-2019

- Considerable operational and financial synergies expected
  - Same systems and service providers used
  - Investigators already familiar with study set-up
  - High-enrolling sites of UC study expected to participate in CD trial
  - Supplemented by additional sites and additional countries
  - Primary endpoint: clinical remission, at W14;
    Secondary endpoint: endoscopic response
- Study already in start-up preparation mode
  - Accelerate study start after interim analysis of UC trial

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
  - 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

* clinicaltrials.gov: NCT03722576

MS Opportunity

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

Despite it's substantial side effects, Aubagio® **reached sales of around 1.8 billion USD in 2018**[1]

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

[1] http://hugin.info/152918/R/2233891/878937.PDF Accessed April 3, 2019

IMU-838: Potential Advantages in MS

- Potential advantages of IMU-838 therapy compared with Aubagio® (teriflunomide):
  - Selectivity and sensitivity[1] [2] [3] [4]
  - Pharmacokinetic parameters[5] [6]
  - Safety profile[7] [8] [9] [10]
  - Drug-drug interaction potential[6]

- 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

[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

* clinicaltrials.gov: NCT03846219

Immunic THERAPEUTICS

IMU-935

Unique RORγt-Inverse Agonist

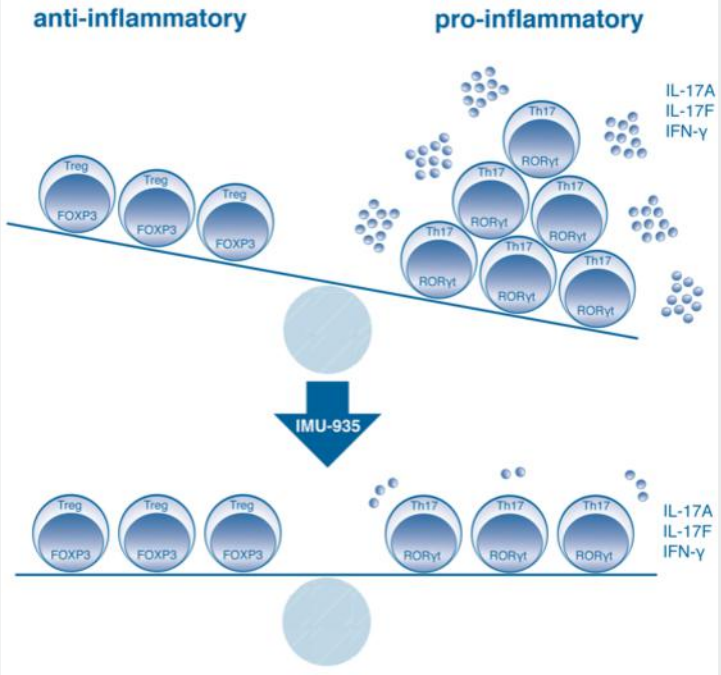
Autoimmune Diseases and IMU-935

Challenge:

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

Solution:

- IMU-935 is a potent small molecule targeting RORγt

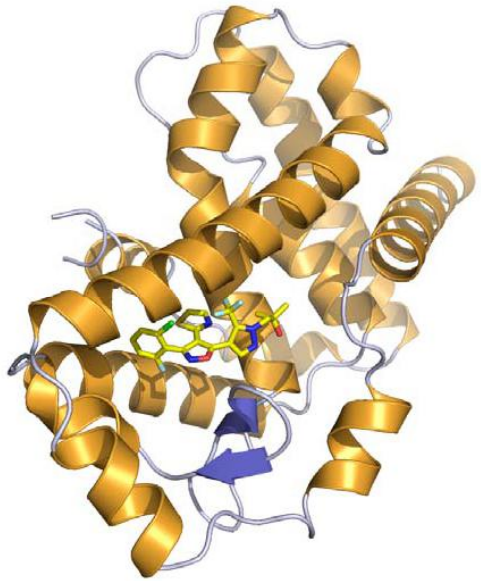


[1] Rose, Noel R. *American journal of epidemiology* 2016; 183.5: 403-406.
[2] Fasching, Patrizia, et al. *Molecules* 2017 22.1: 134.

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

	IC_{50} [µM]
IL-17A	0.005
IL-17F	0.004
IFNγ	0.003
IL-1a and b	no inhibition
IL-4,5,6,8	no inhibition
RORγ	24 nM (MST)
RORγ (cellular, rep.)	20 nM
Th17 differentiation	100 nM



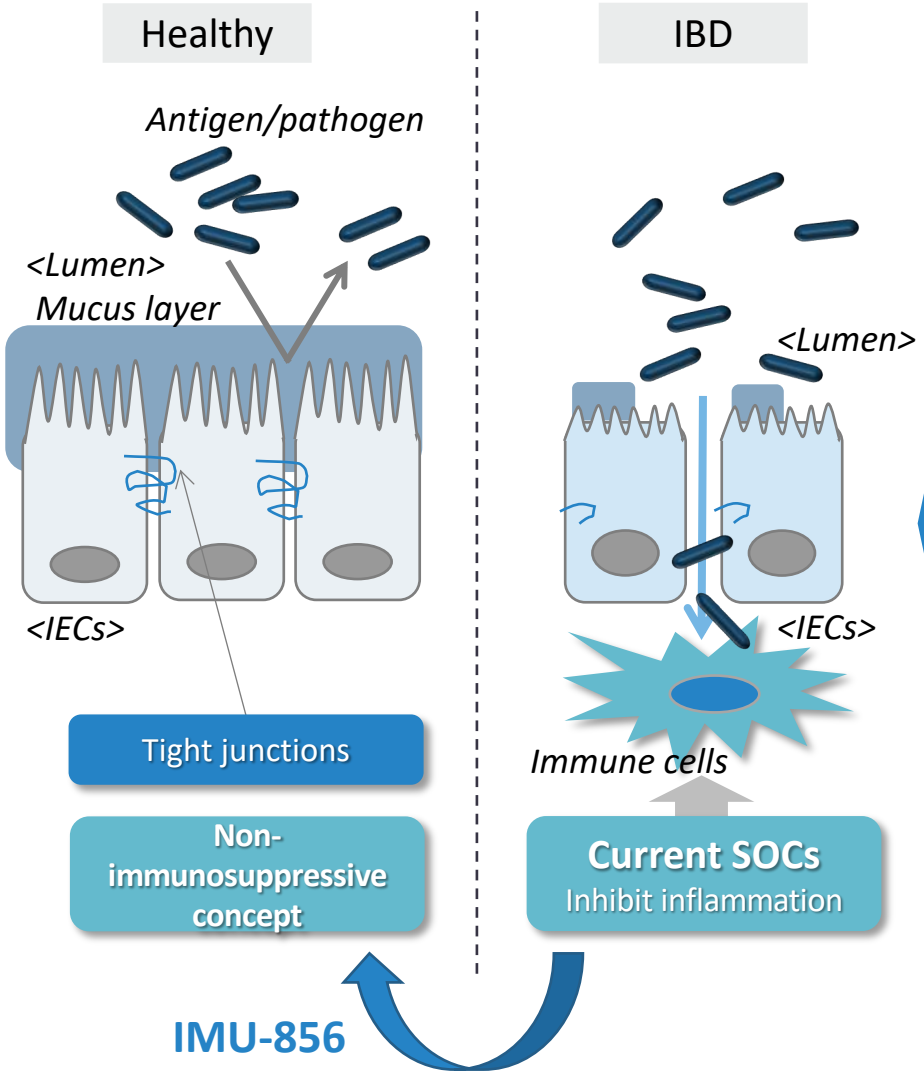
Resolution 2.6 A of a closely related derivative compound binds to hydroxycholesterol binding site

Immunic THERAPEUTICS

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

Source: Adopted from Daiichi Sankyo Venture Science Labs, November 2018

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

Financial Status and Cash Runway

- Immunic Series A financing round of 37.5 million USD completed in 2016 and 2017
- Supported by renowned life science investors

- Current Immunic investors to invest 26 million EUR additional equity at closing of the transaction with Vital Therapies
- Cash runway expected to be sufficient beyond important value inflection points into Q3 2020

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Experienced management team	• Experienced management team with strong track record and over 70 years of leadership experience in the pharmaceutical industry • Focused on efficient use of capital to maximize investor return
Supported by experienced life science investors	• Strong support of sophisticated board members and life science investors • LSP as lead investor • Omega Funds, Fund+, LifeCare Partners, High-Tech Gründerfonds, Bayern Kapital and IBG as further investors


Australia
Melbourne
small
IBD
best-in-class
drug
selective
inhibitors
preclinical
RORγt
NASDAQ
colitis
multiple
ulcerative
psoriasis
Crohn's
IMU-856
programs
chronic
Halle/Saale
MayoClinic
Germany
agonist
inflammatory
USA
development
diseases
IMUX
bowel
biotech
Immunic
Munich
novel
candidates
autoimmune
Martinsried
DaiichiSankyo
oral
healthcare
immunology
molecule
sclerosis
clinical
proof-of-concept
inverse
immune
DHODH
IMU-935
PSC
therapies
intestinal
IMU-838
barrier
functionspecialist

Immunic THERAPEUTICS

Thank You!

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