



**Immunic**  
THERAPEUTICS

# Immunic Therapeutics

Developing Selective Oral Therapies in Immunology

---

NASDAQ: IMUX | February 2025

# Cautionary Note Regarding Forward-Looking Statements

→ This presentation contains “forward-looking statements” that involve substantial risks and uncertainties for purposes of the safe harbor within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. 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 Private Securities Litigation Reform Act of 1995.

→ 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 development programs and the targeted diseases; the potential for Immunic’s development programs to safely and effectively target and treat the diseases mentioned herein; preclinical and clinical data for Immunic’s development programs; the impact of future preclinical and clinical data on Immunic’s product candidates; the timing of the availability of data from Immunic’s clinical trials; the availability or efficacy of Immunic’s potential treatment options that may be supported by trial data discussed herein; the timing of current and future clinical trials and anticipated clinical milestones; Immunic’s ability to protect its intellectual property position; Immunic’s plans to research, develop and commercialize its current and future product candidates; the timing of any planned investigational new drug application or new drug application; the development and commercial potential of any product candidates of the company; expectations regarding potential market size; developments and projections relating to Immunic’s competitors and industry; 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 successfully collaborate with existing collaborators or enter into new collaboration agreements, and to fulfill its obligations under any such collaboration agreements; Immunic’s ability to identify additional products or product candidates with significant commercial potential; the impact of government laws and regulations; the COVID-19 pandemic; impacts of the conflicts in Ukraine – Russia and the Middle East; Immunic’s listing on The Nasdaq Global Select 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, including the ability to satisfy the minimum average price and trading volume conditions required to receive funding in tranche 2 and 3 of the January 2024 private placement; the nature, strategy and focus of the company and further updates with respect thereto; and the other risks set forth in the company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the U.S. Securities and Exchange Commission.

→ Forward-looking statements included in this presentation are based on information available to Immunic as of the date of this presentation. Immunic does not undertake any obligation to update such forward-looking statements except as required by applicable law.

# CLINICAL-STAGE BIOPHARMACEUTICAL COMPANY (NASDAQ: IMUX)

Dedicated to improving the lives of patients with chronic inflammatory and autoimmune diseases



**Innovative pipeline:**  
First-in-class oral drugs with unique modes of actions for multiple sclerosis and gastrointestinal diseases



**Experienced leadership team:**  
Successfully developed and commercialized multiple medicines



**Near-term catalysts:**  
Series of milestones targeting significant market opportunities



**Large commercial opportunity:**  
Blockbuster potential for Phase 3 program in multiple sclerosis



**Financials:**  
Cash balance of USD 59.1 million as of Sep 30, 2024 expected to fund operations into Q3/2025

# Leadership Team

Company is Led by an Experienced Management Team



Daniel Vitt,  
PhD  
Chief Executive  
Officer



Jason Tardio,  
MBA  
President & Chief  
Operating Officer



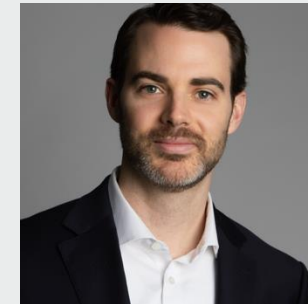
Andreas Muehler,  
MD, MBA  
Chief Medical  
Officer



Hella Kohlhof, PhD  
Chief Scientific  
Officer



Glenn Whaley, CPA  
Chief Financial  
Officer



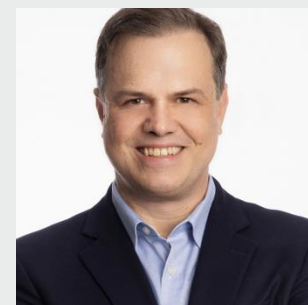
Patrick Walsh  
Chief Business  
Officer



Inderpal Singh  
General Counsel



Werner Gladdines  
Chief Development  
Officer



Duane Nash,  
MD, JD, MBA  
Executive  
Chairman

# Advanced Clinical Pipeline

## Well Differentiated Programs in Various Phases of Clinical Development

Program	Preclinical	Phase 1	Phase 2	Phase 3	Key Program Updates
<b>Vidofludimus Calcium (IMU-838)</b>			Relapsing Multiple Sclerosis (RMS) – ENSURE-1 and ENSURE-2 Trials		<ul style="list-style-type: none"> <li>✓ Phase 2 EMPHASIS trial in relapsing-remitting MS successfully completed</li> <li>✓ Interim futility analysis of ENSURE program completed, IDMC recommendation to continue trials as planned</li> <li>✓ Interim biomarker readout of CALLIPER trial completed with strong NfL reduction effects</li> <li>✓ Phase 2 CALDOSE-1 trial in UC completed, effective in 50 weeks maintenance phase                             <ul style="list-style-type: none"> <li>▪ Top-line data from CALLIPER trial expected in April 2025</li> <li>▪ Completion of first ENSURE trial expected in Q2/2026, second in H2/2026</li> </ul> </li> </ul>
			Progressive Multiple Sclerosis (PMS) – CALLIPER Trial		
			Ulcerative Colitis (UC) – CALDOSE-1 Trial		
<b>IMU-856</b>			Celiac Disease and other Gastrointestinal Disorders		<ul style="list-style-type: none"> <li>✓ Phase 1/1b trial in healthy volunteers and celiac disease patients completed, achieved first proof-of-concept in celiac disease                             <ul style="list-style-type: none"> <li>▪ Phase 2 clinical trial in preparation</li> </ul> </li> </ul>
<b>IMU-381</b>					
		Gastrointestinal Diseases			

■ Ongoing   ■ Completed   ■ In preparation or planned



Vidofludimus Calcium in Multiple Sclerosis (MS)

---

Targeted to Elevate the Standard  
of Care for the Full Spectrum of  
Multiple Sclerosis Patients

# Vidofludimus Calcium Has the Potential to Transform the Oral Multiple Sclerosis DMT Market

## Designed to Combine the Best of Two Worlds: Neuroprotection and Relapse Prevention

**First-in-class, dual mode of action** approach designed to address the **full spectrum of disease**:

- Nurr1 activation provides **direct neuroprotective effects**
- DHODH inhibition is associated with **anti-inflammatory effects**

---

Oral DMT category: Achieves **best-in-class benefit / risk profile** by combining **strong efficacy** with **safety, tolerability**, and **once-daily** convenience

---

No first-dose or on-treatment monitoring makes it an **easy start or switch to therapy**

---

No anticipated black box warnings or serious infection risk (e.g., PML, malignancies, etc.)



→ **If approved, peak sales potential for vidofludimus calcium of \$2-6 billion<sup>[1]</sup>**

DMT: disease-modifying therapy; Nurr1: nuclear receptor related 1; DHODH: dihydroorotate dehydrogenase; PML: progressive multifocal leukoencephalopathy [1] Based on Immunic internal market research

# Multiple Sclerosis is a Lifelong Neurodegenerative Disease



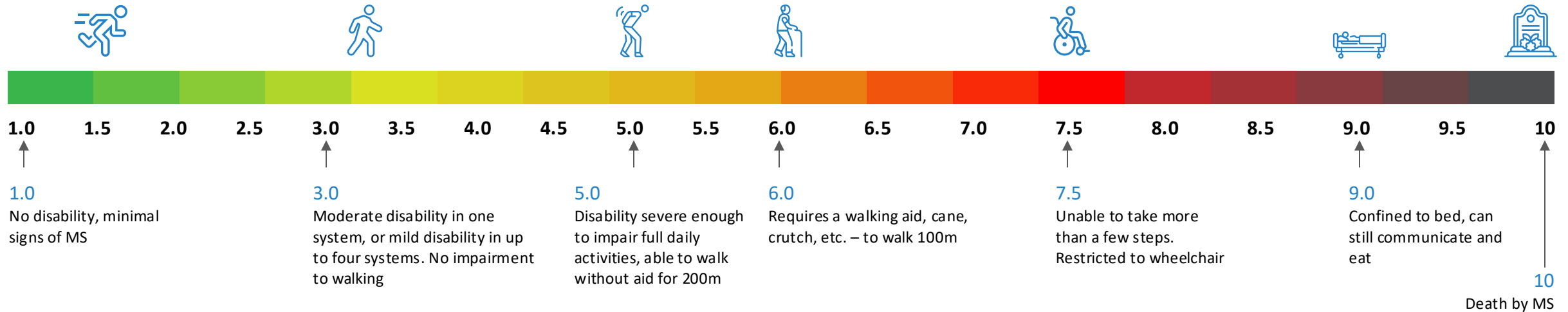
## Lifelong Disease Requiring Decades of Therapy

- ~2.9 million people affected worldwide<sup>[1]</sup>
- ~1 million people affected in US<sup>[1]</sup>
- Often diagnosed in younger adults (3:1 women:men)



## Therapeutic Goal: Increase Independence

- Key unmet need: prevention or slowing of long-term disability worsening, prolonging time of independence
- Historical focus has been on prevention of relapses via broad immunosuppression



[1] National MS Society (2024): How Many People Live With Multiple Sclerosis? <https://www.nationalmssociety.org/understanding-ms/what-is-ms/who-gets-ms/how-many-people#:~:text=An%20Overview%20of%20How%20Many,than%20twice%20the%20previous%20estimate>  
 Illustration adapted from: VOX, <https://futurism.com/reversal-of-multiple-sclerosis-via-risky-stem-cell-treatment-confirmed>, and Multiple Sclerosis Trust, <https://www.mstrust.org.uk/>



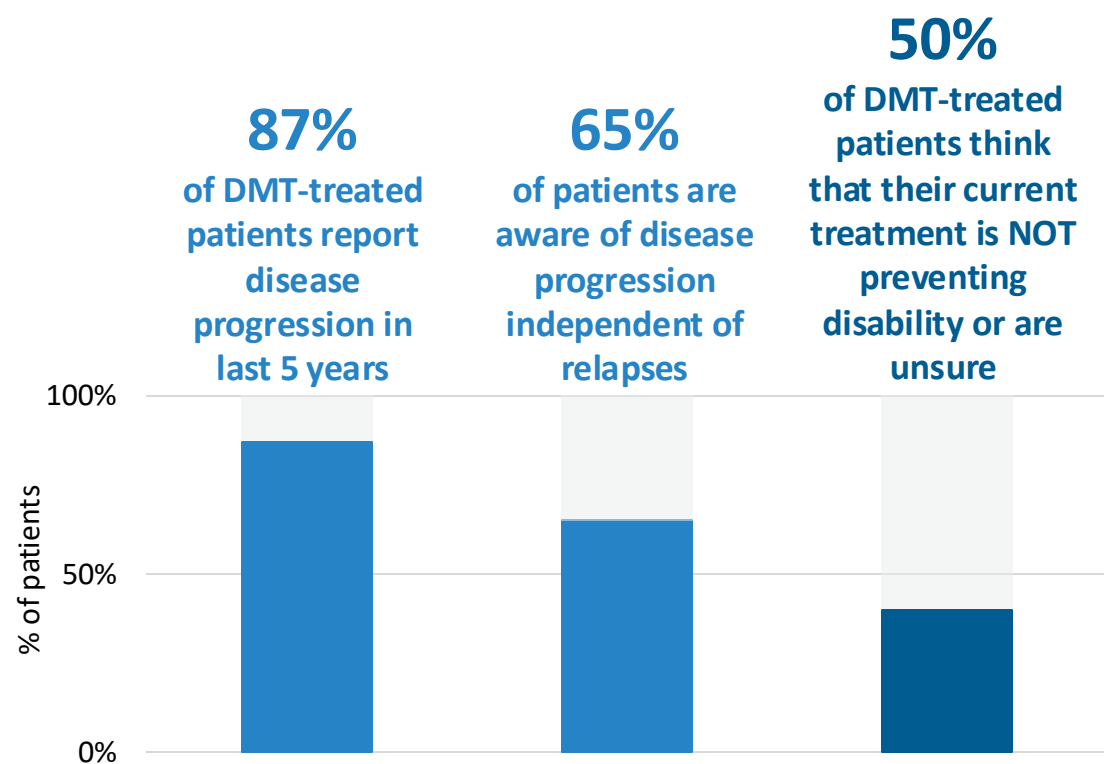
# The Unmet Medical Needs in Multiple Sclerosis



Despite Being on Efficient Relapse-Targeting Therapies, Majority of Patients Still Experiences Disability Worsening<sup>[1]</sup>



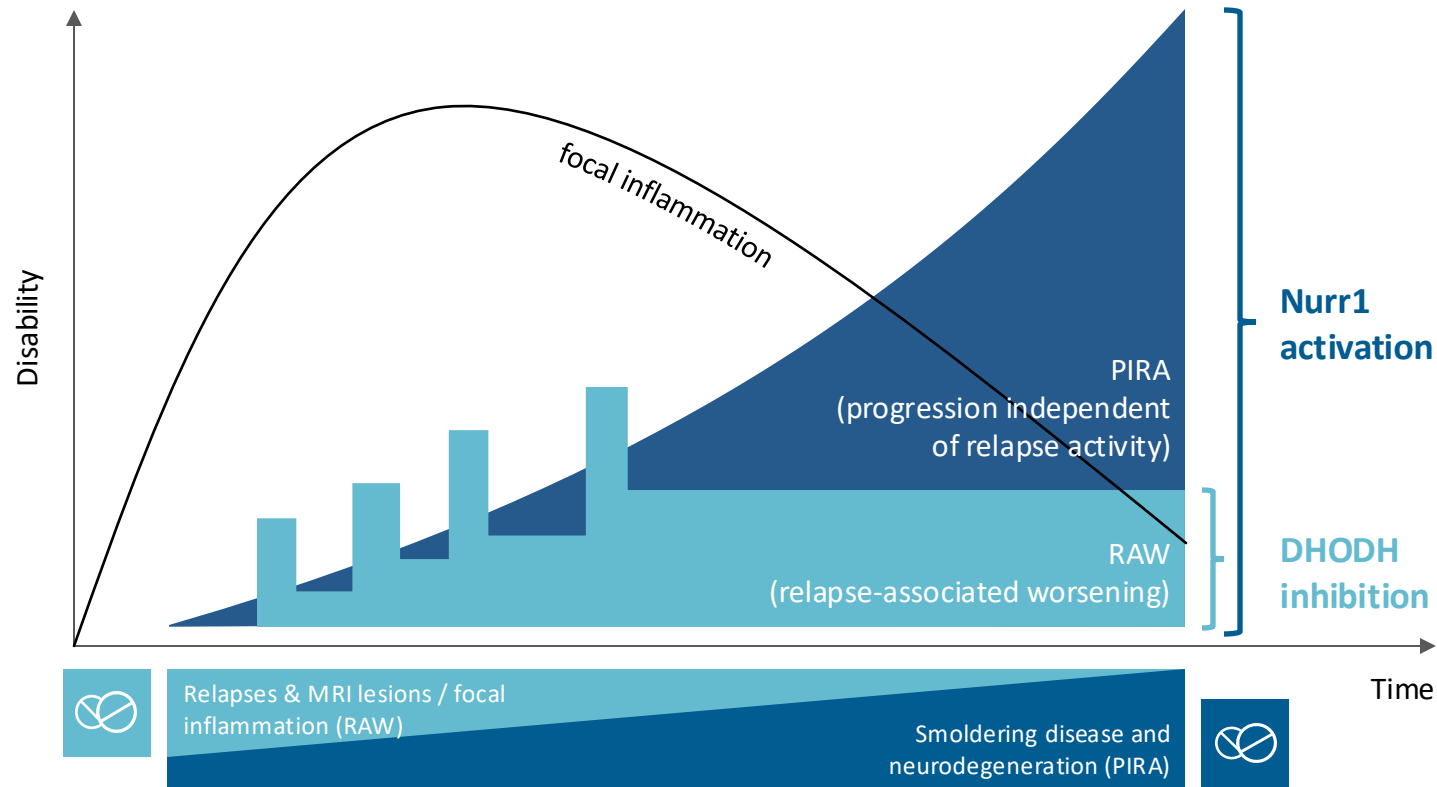
## Goals for New Multiple Sclerosis Treatments



- Developing a new therapy offering:
  - Neuroprotection and effect on progression independent of relapse activity (PIRA)
  - Excellent safety and tolerability
  - Easy to use, convenient oral administration without complex screening requirements
- Developing a new therapy for newly diagnosed patients and as an excellent switch opportunity

[1] Quantitative survey performed by Immunic, 100 MS patient respondents, US based / DMT: disease modifying therapy; PIRA: progression independent of relapse activity

# Underlying “Invisible Disability Accumulation” Contributes to Disability Progression Over Time Requiring a Dual Mode of Action Approach



Graphic adapted from Kretzschmar A., Symposium MSVirtual2020 / 8th Joint ACTRIMS-ECTRIMS Meeting and REVIEW article, Front. Immunol., 29 November 2023, Sec. Multiple Sclerosis and Neuroimmunology, Volume 14 – 2023 [1] Scalfari A. Mult Scler. 2021 Jun;27(7):1002-1004 / MRI: magnetic resonance imaging; Nurr1: nuclear receptor related 1; DHODH: dihydroorotate dehydrogenase; DMT: disease modifying therapy; MS: multiple sclerosis

These observations challenge the dichotomy between relapsing and progressive disease, supporting a one stage disorder model of MS, where all patients exhibit a **progressive course from the disease onset**, which can be overlapped by relapses.<sup>[1]</sup>

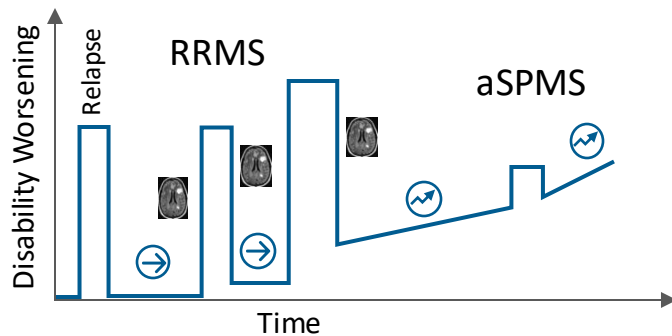
The ideal DMT agent will have a significant impact on relapses and focal MRI activity to reduce RAW but also halts the putative processes responsible for smoldering MS/PIRA.

# There Are Three Distinct MS Indications

The Different Indications Have Different Paths and Drivers of the Disability Progression

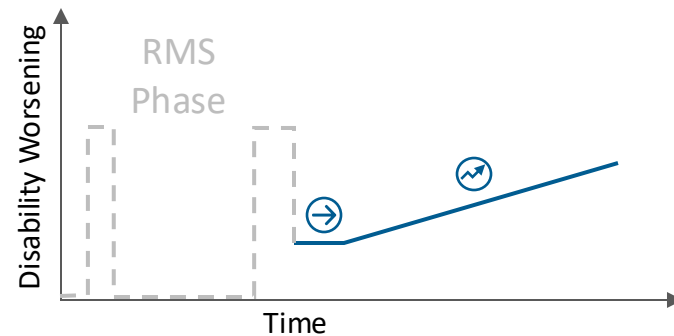
## Relapsing MS

- Includes relapsing-remitting MS and active secondary progressive MS
- Relapses and MRI lesions dominate clinical course, disability progression already present
- Current drugs mainly address relapses and relapse-associated disability worsening



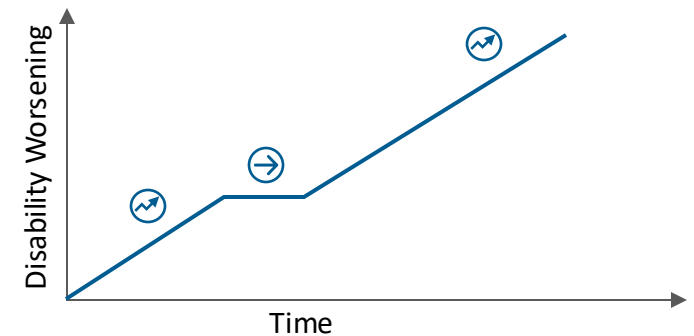
## Non-Active SPMS

- Relapses have stopped, but disability progression continues
- No therapies approved, to date



## Primary Progressive MS

- Disability worsening without relapses from the start without predominance of relapses
- Only one drug approved, so far



Adapted from Kretzschmar A., MSVirtual2020; \*Lublin FD, et al. Brain. 2022 Sep 14;145(9):3147-3161

MS: multiple sclerosis; MRI: magnetic resonance imaging; RRMS: relapsing-remitting MS; SPMS: secondary progressive MS; aSPMS: active SPMS

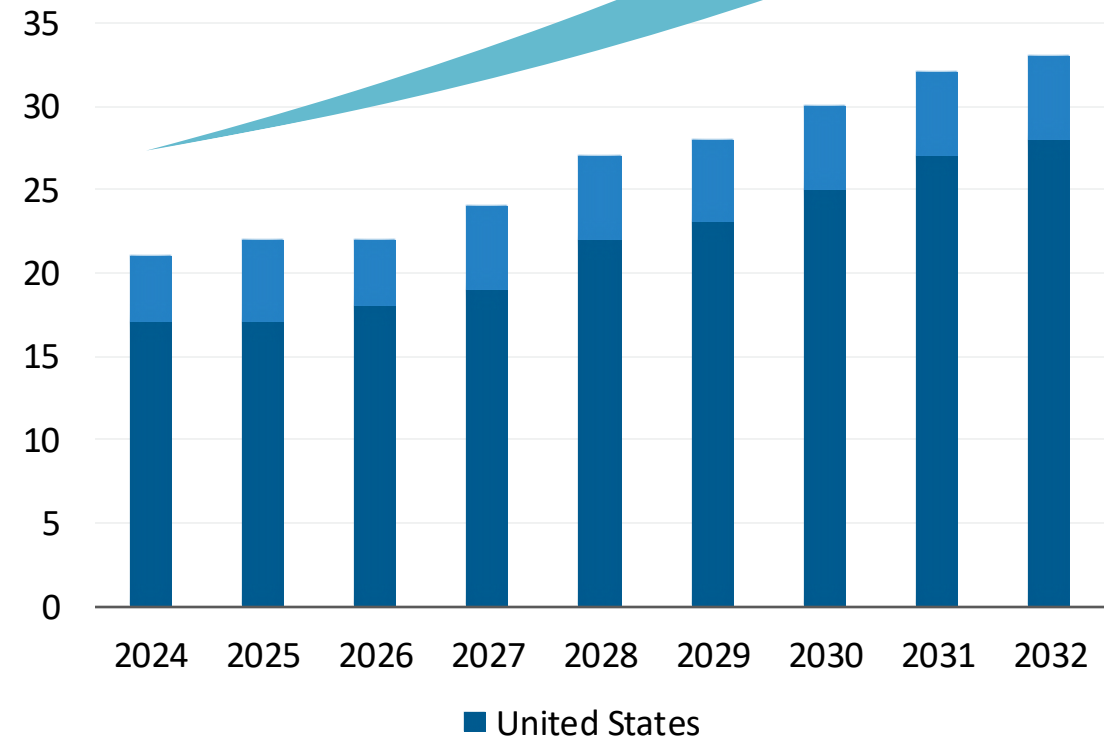
# A Large and Growing Global Market Where Multiple Blockbusters Coexist

Many brands are generating in excess of \$1 billion in global annual sales in 2023<sup>[1]</sup>

Ocrevus <sup>®</sup>	\$7.2 billion
Kesimpta <sup>®</sup>	\$2.2 billion
Tysabri <sup>®</sup>	\$1.9 billion
Tecfidera <sup>®</sup> & Vumerity <sup>®</sup>	\$1.6 billion
Avonex <sup>®</sup> & Plegridy <sup>®</sup>	\$1.1 billion
Mavenclad <sup>®</sup>	\$956 million
Aubagio <sup>®</sup>	\$955 million
Gilenya <sup>®</sup>	\$925 million
Rebif <sup>®</sup>	\$709 million
Briumvi <sup>®</sup>	\$89 million

\$20 billion market today growing 4% y/y<sup>[2]</sup>

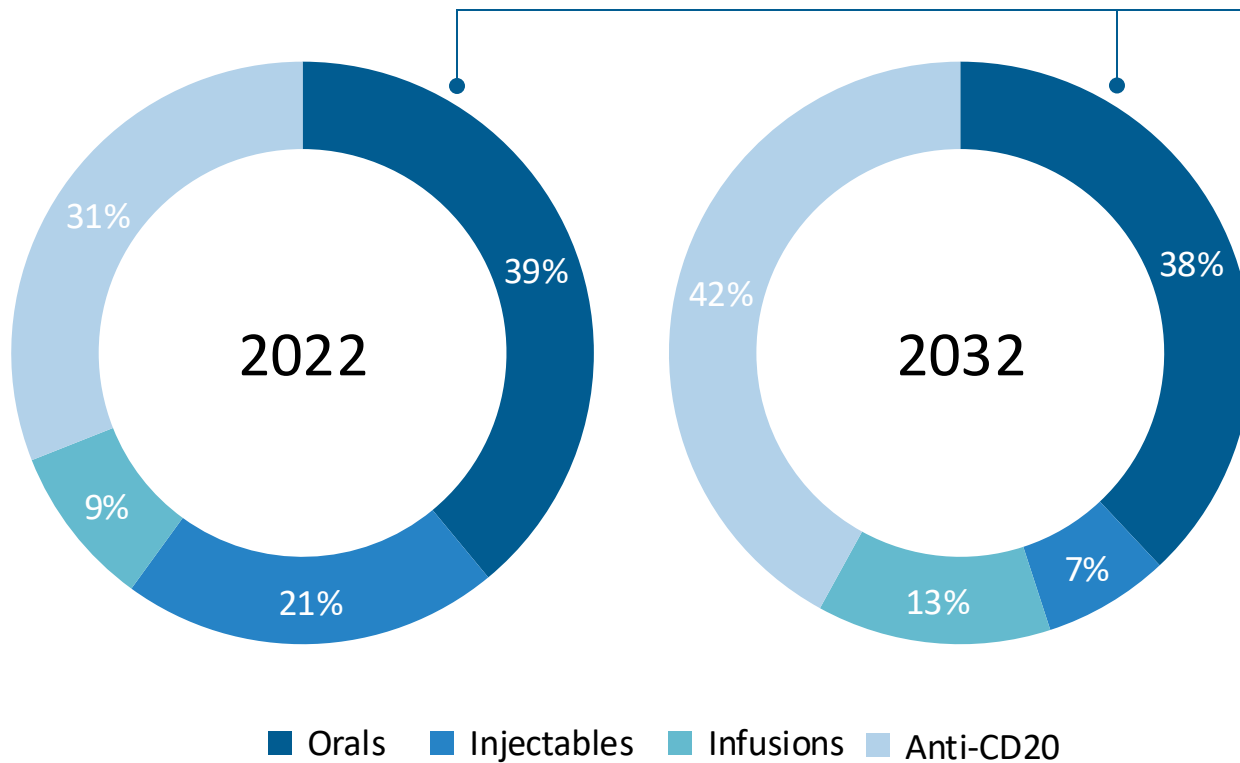
Major market sales of MS therapies(\$ billion)



[1] Company public filings [2] Sales numbers in G7 countries (US, UK, Canada, Japan, Germany, France, Italy) in USD billion; Multiple Sclerosis Landscape and Forecast by Decision Resources Group Part of Clarivate

# Oral DMTs Will Continue to Play a Big Role as Important Treatment Options

Global Market Share by Drug Class  
2022 vs. 2032<sup>[1]</sup>



While the anti-CD20 class of therapies continues to grow, the oral class still captures over 1/3 of the global market

- Data supports that 42% of patients prefer oral medicines<sup>[2]</sup>
- Early-line reliance on injectable therapies will continue to wane as the market shifts to using oral therapies earlier
- 15% of patients with PPMS and 25% of patients with non-active SPMS received oral treatments (off label)<sup>[3]</sup>

[1] Sales numbers in G7 countries (US, UK, Canada, Japan, Germany, France, Italy) in USD billion; 2024 Multiple Sclerosis Landscape and Forecast by Decision Resources Group Part of Clarivate. [2] Jonker MF, et al. Med Decis Making. 2020 Feb;40(2):198-211 [3] Watson C, et al. Neurol Ther. 2023 Dec;12(6):1961-1979 / DMT: disease-modifying therapy; CD20: B lymphocyte cell-surface molecule; SPMS: secondary progressive MS; PPMS: primary progressive MS

# Multiple MS Patient Segments Could Benefit from Vidofludimus Calcium



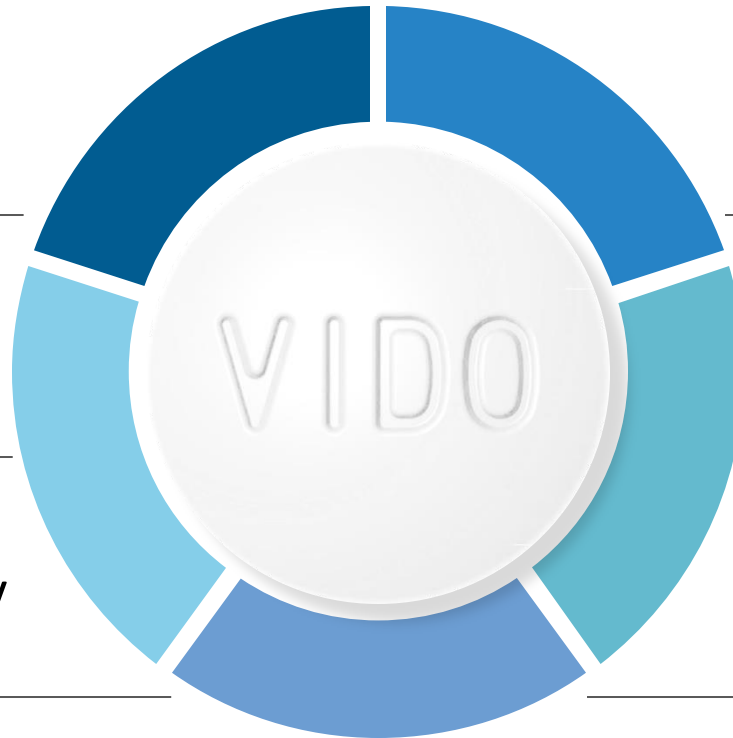
Newly diagnosed patients



Patients switching therapies due to disability worsening



Patients switching therapies due to tolerability or safety concerns



Older patients where immunosuppression is a concern



Untreated patients



Patients with progressive disease (naSPMS & PPMS)



naSPMS: non-active secondary progressive MS; PPMS: primary progressive MS

# Vidofludimus Calcium: Derisked Near-Term Opportunity with \$2-6 Billion Peak Potential



Indication



Status



Clinical Evidence



Eligible Population



Next Milestones



Potential Peak Sales

	RMS	naSPMS	PPMS
Indication			
Status	Phase 3	Phase 2	Phase 2
Clinical Evidence	76% reduction in new Gd+ lesions (Phase 2)	20.1% reduction in serum NfL compared to placebo in naSPMS patients (Phase 2)	18.8% reduction in serum NfL compared to placebo in PPMS patients (Phase 2)
Eligible Population	~900k	~175k	~120k
Next Milestones	Phase 3 completion <b>2026</b>	Phase 2 data <b>April 2025</b>	Phase 2 data <b>April 2025</b>
Potential Peak Sales	<b>\$1-2B</b>	<b>\$1-2B</b>	<b>\$1-2B</b>

Patient numbers sourced via internal Immunic analysis and the 2024 Multiple Sclerosis Landscape and Forecast report by Decision Resources Group Part of Clarivate  
 RMS: relapsing MS; naSPMS: non-active secondary progressive MS; PPMS: primary progressive MS; Gd+: gadolinium-enhancing; NfL: neurofilament light chain



Vidofludimus Calcium in Multiple Sclerosis (MS)

---

First-in-Class, Potent  
Nurr1 Activator and  
Selective DHODH Inhibitor



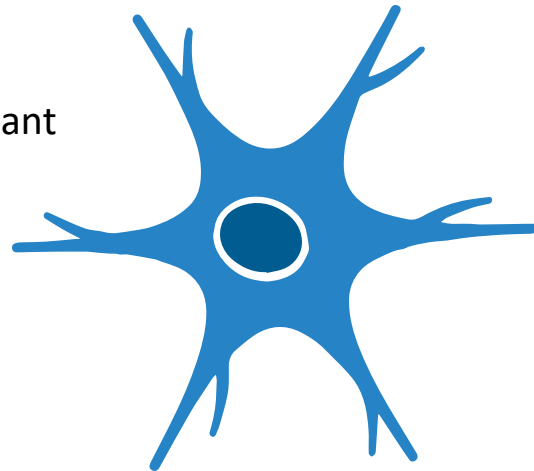
# Vidofludimus Calcium Addresses Smoldering Neurodegeneration



First-in-Class Nurr1 Activator, Targeting Improvement of Physical and Mental Ability of Multiple Sclerosis Patients

## Nurr1 Activator

- Direct and indirect neuroprotective effects
- Involved in protecting relevant neurons from cell death
- Known effects reducing activation of microglia and astrocytes
- Effect independent from focal inflammation

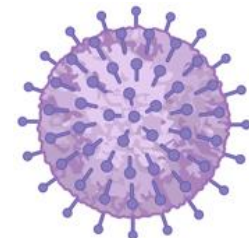


## DHODH Inhibitor

- Selectively targets hyperactive immune cells
- Selective anti-inflammatory effects, reducing focal inflammation, magnetic resonance imaging lesions and relapses
- Broad-spectrum antiviral effects prevent reactivation of EBV and could stop cross reactive immune responses



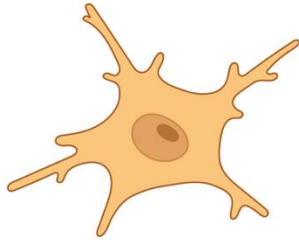
Blocking of Th17/Th1 cytokines



# Nurr1 Is a Nuclear Receptor Involved in Neuroprotection

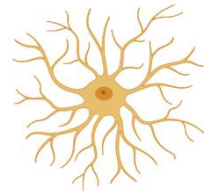
Nurr1 is expressed in different cells relevant for neuroprotection

microglia

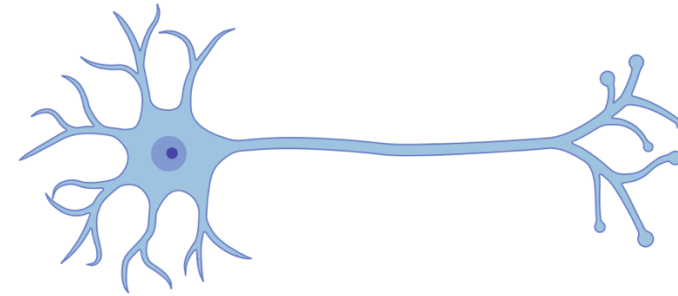


Nurr1 activation prevents microglia/  
astrocyte-driven neurotoxicity in the brain

astrocyte



neuron



Nurr1 activation mediates neuronal survival  
Nurr1 activation in motor neurons may halt  
neurodegeneration and disability progression



Nurr1 activation by vidofludimus calcium leads to induction of primary target genes in these cells

Vietor et al., Journal of Medicinal Chemistry 2023 66 (9), 6391-6402; Schiro et al., 2022, Frontiers in Neurology, adapted from Willems S, Merk D. J Med Chem. 2022;65(14):9548-9563; illustrations created in BioRender.com; Nurr1: nuclear receptor related 1

# MS Progression/Activity is Naturally Lowered During Pregnancy Linked to Nurr1 Upregulation

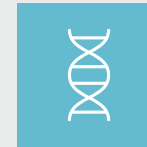
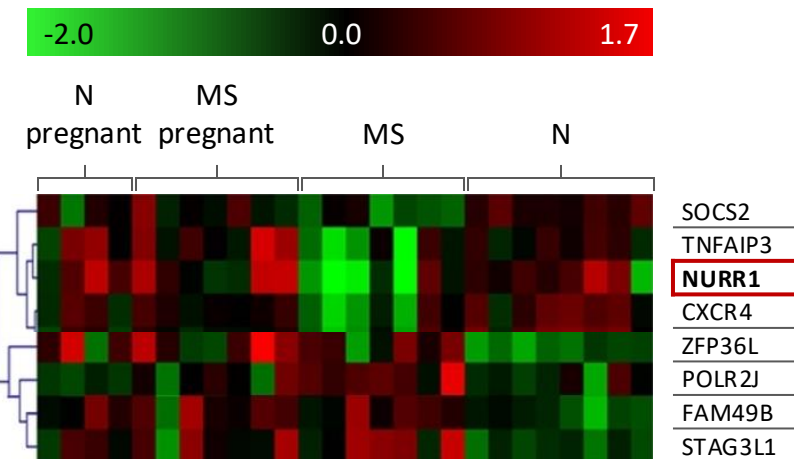


Women with MS experience a substantial reduction of disease activity during pregnancy, particularly in the third trimester



Pregnancy is a unique state of immune-modulation in which the maternal immune system transiently tolerates the paternal antigens of the semi-allogenic fetus

347 transcript differentially expressed in RRMS peripheral blood compared to healthy control



8 genes (e.g., Nurr1) revert to healthy control value during pregnancy



Nurr1 gene expression level negatively correlates with relapse rate and EDSS

# Further Role of Nurr1 in MS: Nurr1 is Downregulated in MS Patients

## Nurr1 Is a Nuclear Receptor Involved in Neuroprotection



- Nurr1 activation delays the onset of the MS and counteracts inflammation in EAE animal models of MS.<sup>[1]</sup>
- In untreated patients with relapsing-remitting MS, Nurr1 was significantly downregulated compared to healthy controls.<sup>[2]</sup>
- Nurr1 gene expression level negatively correlates with the aggressiveness of the pathology and clinical parameters of MS, e.g., relapse rate and EDSS, in which more aggressive forms of the disease were characterized by lower levels of the Nurr1 transcript.<sup>[3]</sup>
- In brain tissue from people with progressive MS, higher levels of Nurr1 are associated with less nerve loss.<sup>[4]</sup>

[1] Montarolo et al., *Inflamm. Res.* 2015, 64, 841–844 [2] Gilli et al., *PLoS ONE* 2010, 5, e8692 [3] Gilli et al., *Arch. Neurol.* 2011, 68, 1–10 [4] Pansieri et al., *Brain Commun.* 2023 Mar 17;5(2):fcad072 / MS: multiple sclerosis; Nurr1: nuclear receptor related 1; EAE: experimental autoimmune encephalomyelitis; EDSS: Expanded Disability Status Scale

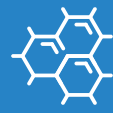
# Vidofludimus Calcium Activates Nurr1, Postulated to Increase Neuronal Survival



## Nurr1 Binding

Nurr1 is a transcription factor binding to DNA<sup>[1]</sup>

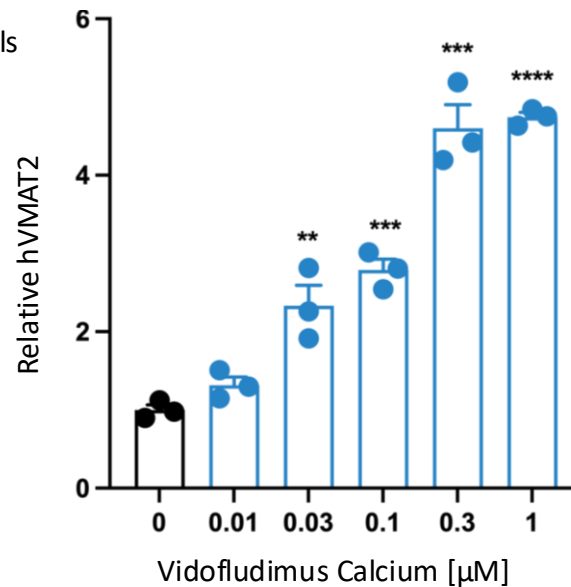
Vidofludimus calcium binds to and strongly activates Nurr1 activity with nM values



## Gene Expression Regulation

Vidofludimus calcium induces a > 2-fold induction of target gene expression of VMAT2 at 30 nM concentration<sup>[2]</sup>

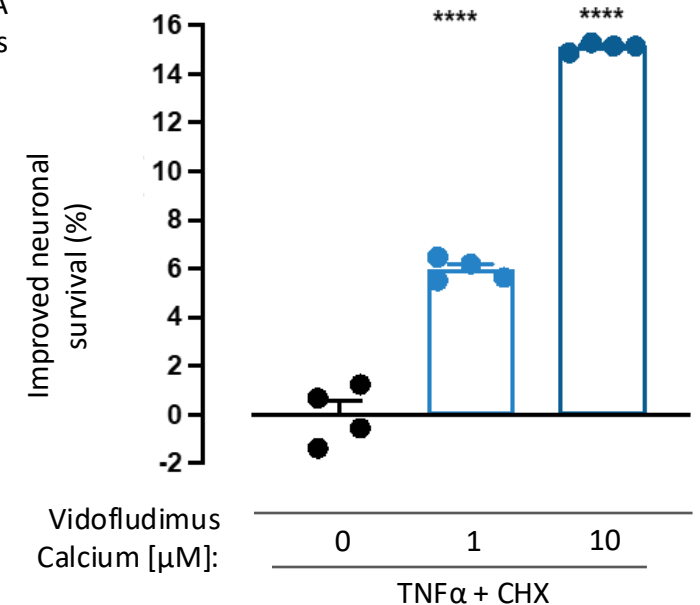
Human microglia cells (HMC3)



## Improves Neuronal Survival

Vidofludimus calcium improves neuronal survival via Nurr1 activation<sup>[3]</sup>

N2A cells



[1] Vieter et al., Journal of Medicinal Chemistry 2023 66 (9), 6391-6402 The related research project was funded by the German Federal Ministry of Education and Research under the grant number 03INT607AA; Structure: Zhao, M. et al. (2022) Proc Natl Acad Sci USA 119; [2] Sun, Zuoming. City of Hope. 2023, unpublished [3] Unpublished data: Sun lab, City of Hope, Duarte; 2023 / Nurr1: nuclear receptor related 1; DNA: deoxyribonucleic acid; VMAT2: vesicular monoamine transporter 2; DMSO: dimethyl sulfoxide; TNF: tumor necrosis factor

# Vidofludimus Calcium: General Effects on MS Disease Processes

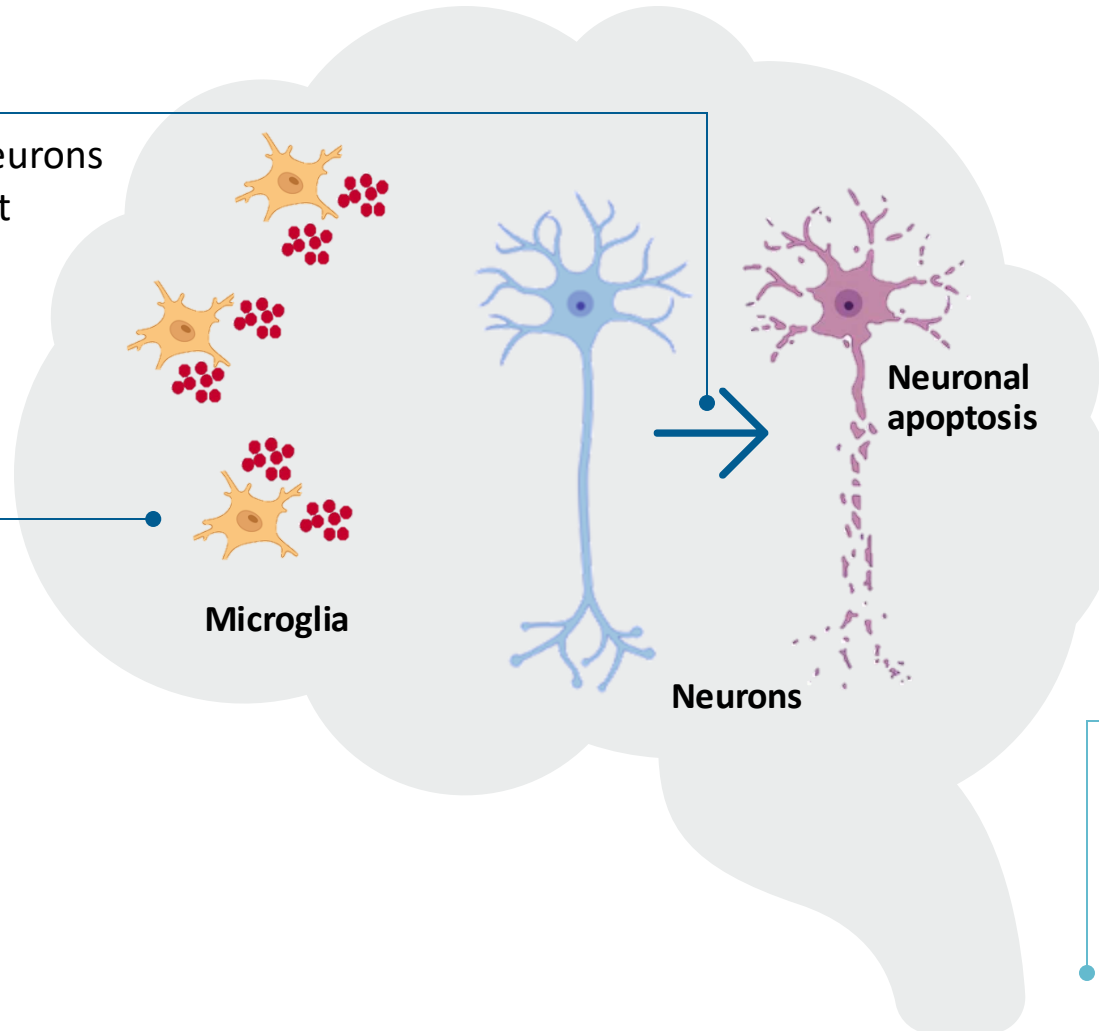
2

Improving the survival of neurons in a neurotoxic environment

Nurr1 Activation

1

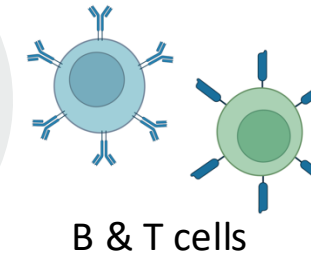
Reducing the activation of microglia (which are a source of a neurotoxic environment)



3

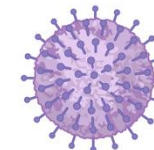
Targeting metabolically active immune cells involved in MS

DHODH Inhibition



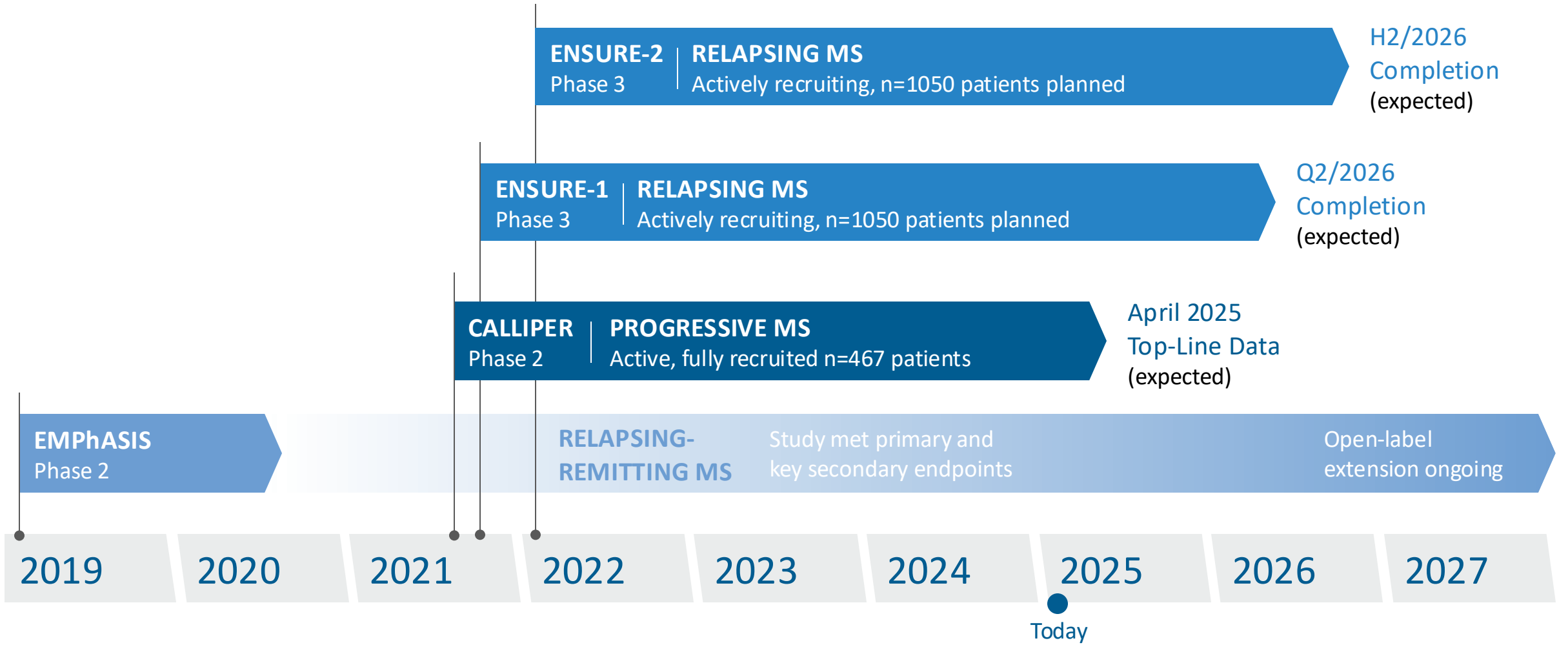
4

Reducing smoldering disease by blocking the constant trigger of immune cells via inhibition of EBV reactivation



Nurr1: nuclear receptor related 1; DHODH: dihydroorotate dehydrogenase; EBV: Epstein-Barr virus

# Vidofludimus Calcium: Clinical Trials Overview in Multiple Sclerosis (MS)





Vidofludimus Calcium in Multiple Sclerosis (MS)

---

# Development in Relapsing Multiple Sclerosis (RMS)

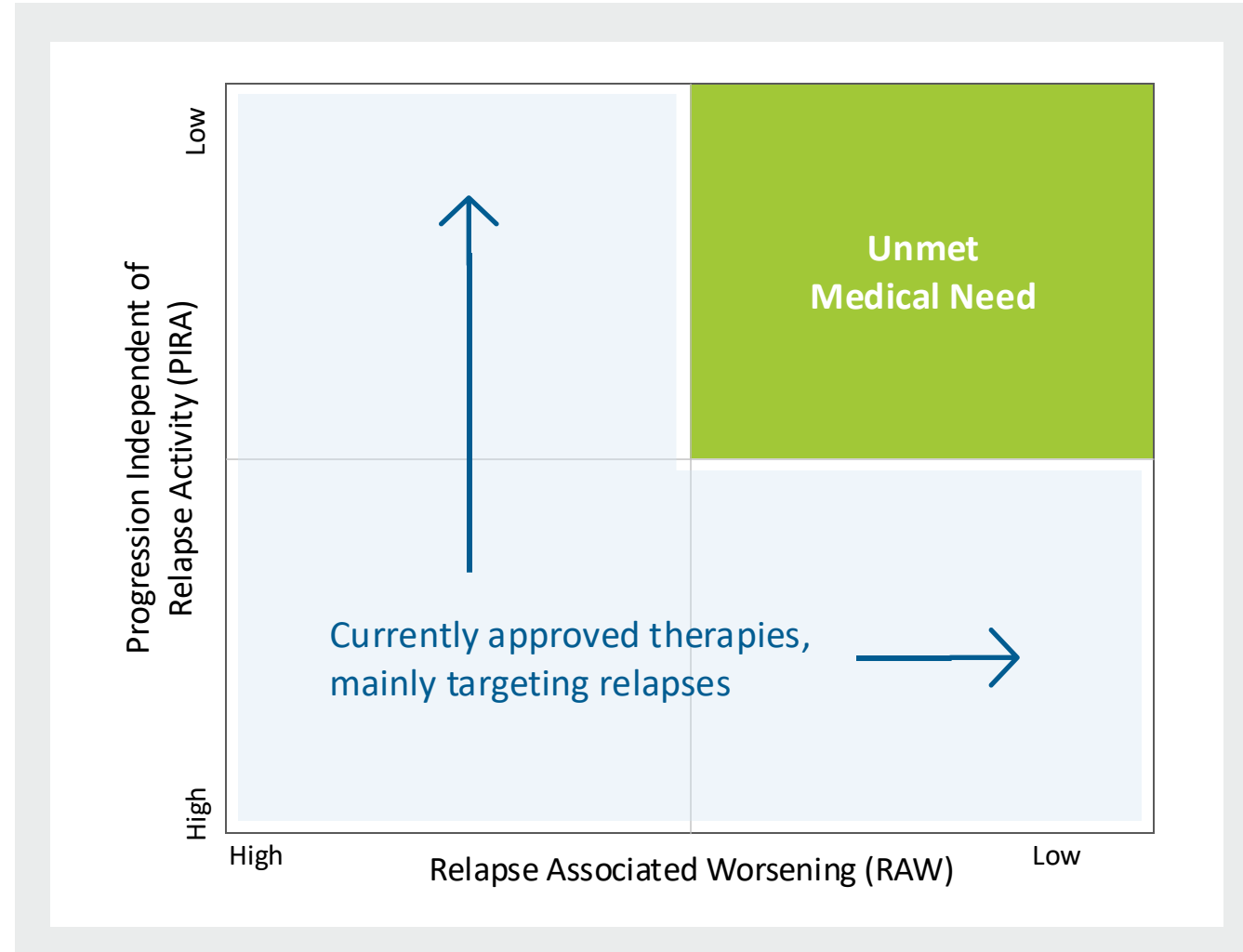


# Vidofludimus Calcium Could be the First Treatment Option for Relapsing MS Fulfilling the Current Unmet Needs of Patients



## Goals for New Relapsing Multiple Sclerosis Treatments

- Developing a new therapy offering:
  - Neuroprotection and effect on progression independent of relapse activity (PIRA)
  - Excellent safety and tolerability
  - Easy to use, convenient oral administration without complex screening requirements
- Developing a new therapy for newly diagnosed patients and as an excellent switch opportunity



# EMPhASIS: Completed Phase 2 Trial in Relapsing-Remitting MS

## NCT03846219



### Coordinating Investigator

Robert J. Fox, M.D.  
Cleveland Clinic



### Double-Blind, Placebo-Controlled, Randomized, Parallel-Group Trial

- Blinded main treatment period of 24 weeks
- Cohort 1: 30 and 45 mg or placebo QD
- Cohort 2: 10 mg or placebo QD
- Extended treatment period of up to 9.5 years ongoing to observe long-term safety is ongoing



### Trial Met Key Efficacy and Safety Endpoints

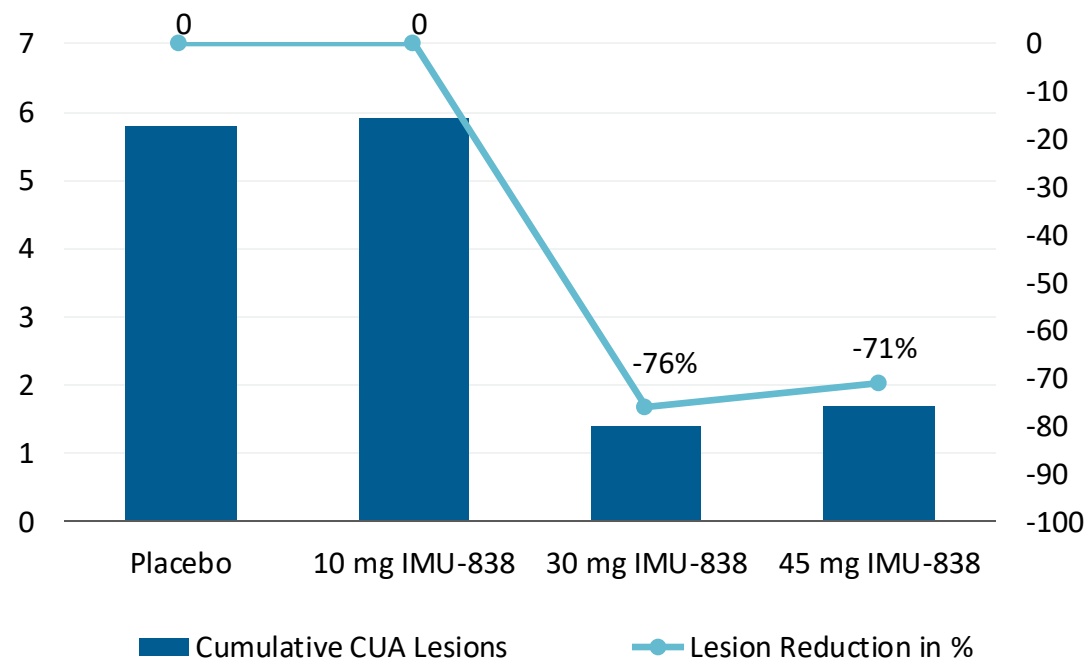
- Randomized 268 patients in 36 centers across four European countries
- Vidofludimus calcium showed strong activity in relapsing-remitting MS population
  - Primary and key secondary endpoints met with high statistical significance: strong reduction of MRI lesion activity
  - Reduced serum NfL concentrations
  - Signal in preventing confirmed disability worsening
- Vidofludimus calcium's safety profile was similar to placebo
  - No general safety signals observed
  - Low discontinuation rates, considerably lower than placebo

MS: multiple sclerosis; QD: quaque die = once-daily; MRI: magnetic resonance imaging; NfL: neurofilament light chain

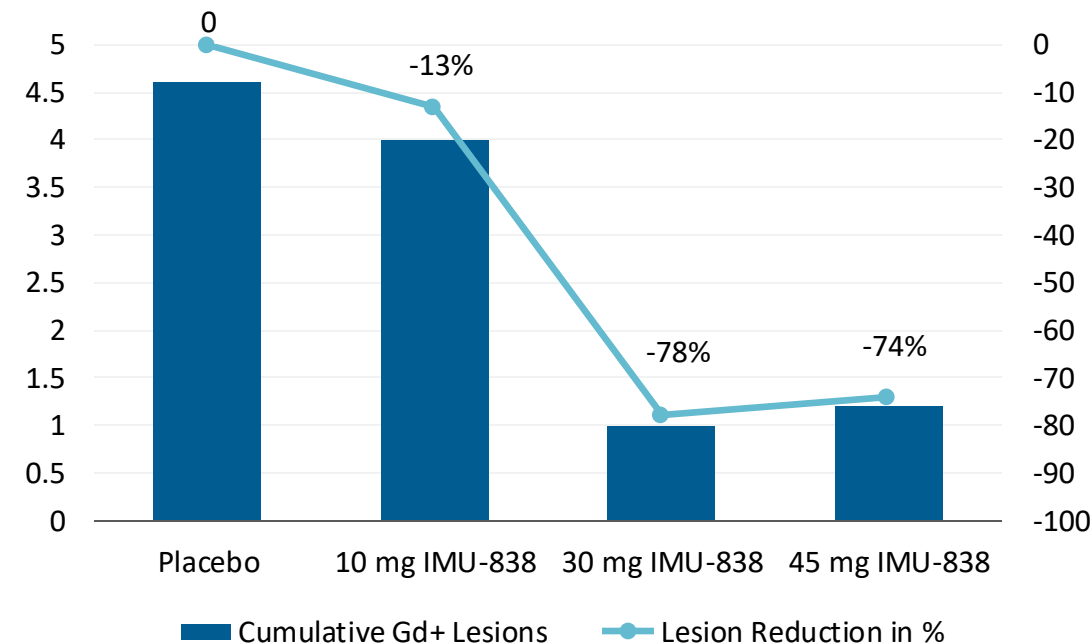
# EMPhASIS: Strong Reduction of MRI Lesion Activity

## Primary Endpoint Hit With High Statistical Significance, Pooled Cohorts 1 & 2

Reduction in Cumulative CUA Lesions up to Week 24



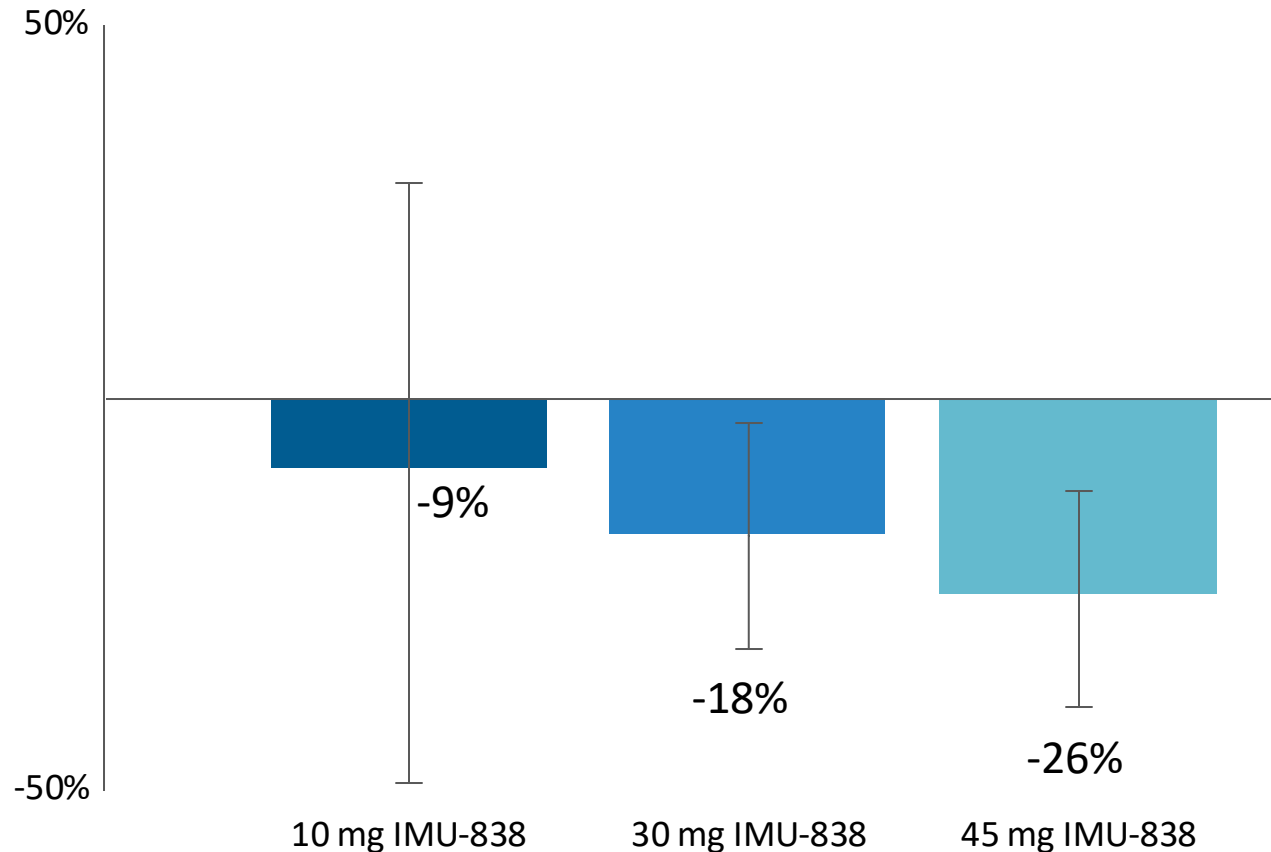
Reduction in Gd+ Lesions up to Week 24



**Primary and key secondary endpoints of cumulative number of new CUA lesions up to week 24 met with high statistical significance (primary 45 mg vs. placebo:  $p = 0.0002$  / key secondary 30 mg vs. placebo:  $p < 0.0001$ )**

As Cohort 2 only allowed MRI machines of 1.5T, pooled data of Cohorts 1 & 2 only include patients that were evaluated at MRI field strength of 1.5 Tesla. Modified full analysis set C1/C2 (N10 = 47, N30 = 65, N45 = 66, NPBO C1 = 59, NPBO C2 = 12)  
 Data displayed are as adjusted mean values. Estimates are adjusted for baseline volume of T2 lesions and baseline number of Gd+ lesions (0, >=1) using a generalized linear model with a negative binomial distribution and a logarithmic link function. Log transformation of time from first investigational medicinal product (IMP) dose to date of last MRI assessment with non-missing values is used as offset term / RRMS: relapsing-remitting multiple sclerosis; MRI: magnetic resonance imaging; CUA: cumulative unique active, Gd+: gadolinium-enhancing

# EMPhASIS: Reduction of Serum NfL Concentrations Observed Versus Placebo After 24 Weeks, Pooled Cohorts 1 & 2



Vidofludimus calcium showed a remarkable reduction in NfL levels in all active doses tested compared with placebo

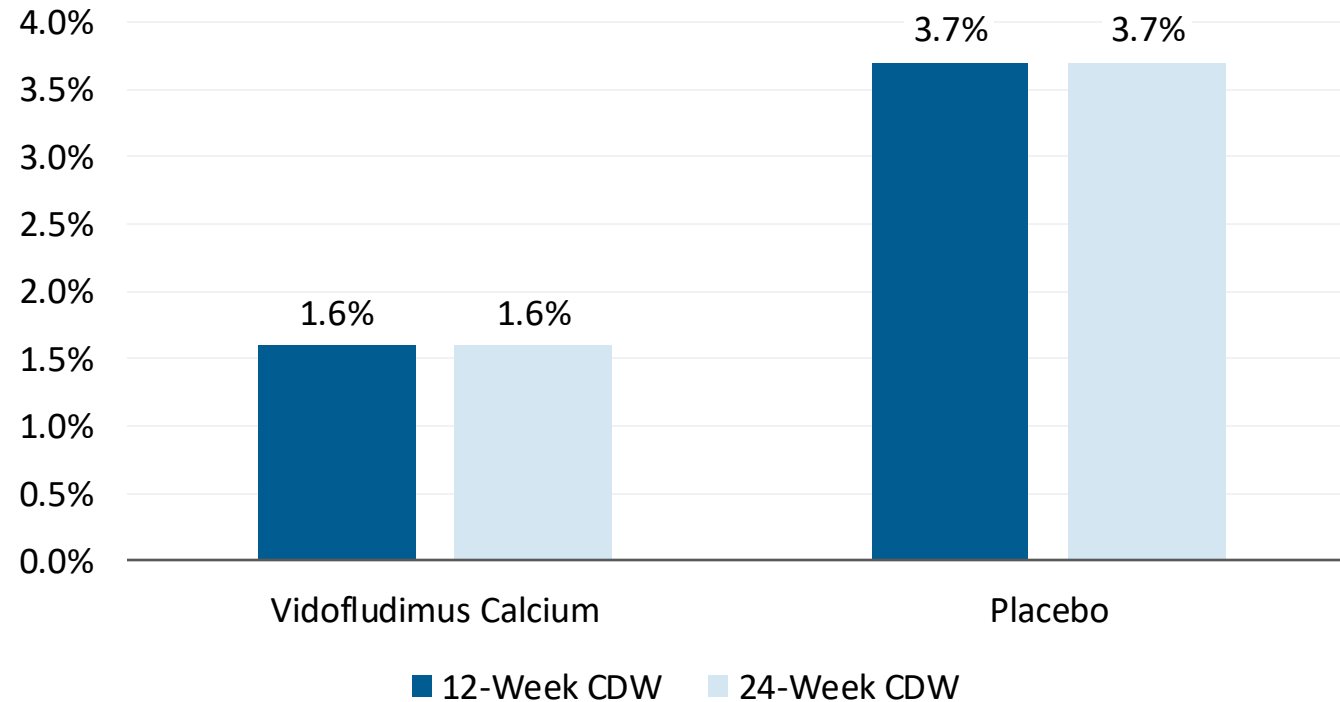
- The relative change of serum NfL versus placebo is proportional to vidofludimus calcium dose.
- Higher doses are expected to show stronger neuroprotective effects.

Displayed are median values of differences between percentage change of serum neurofilament light chain concentration (Hodges-Lehmann estimation), treatment vs. placebo  
Data shows 10 mg versus placebo for Cohort 2 and 30/45 mg versus placebo for Cohort 1; NfL: neurofilament light chain

# EMPhASIS: Reduced Confirmed Disability Worsening Events

## End of 24-Week Blinded Treatment Period

CDW Events at the End of the 24-Week Blinded Treatment Period



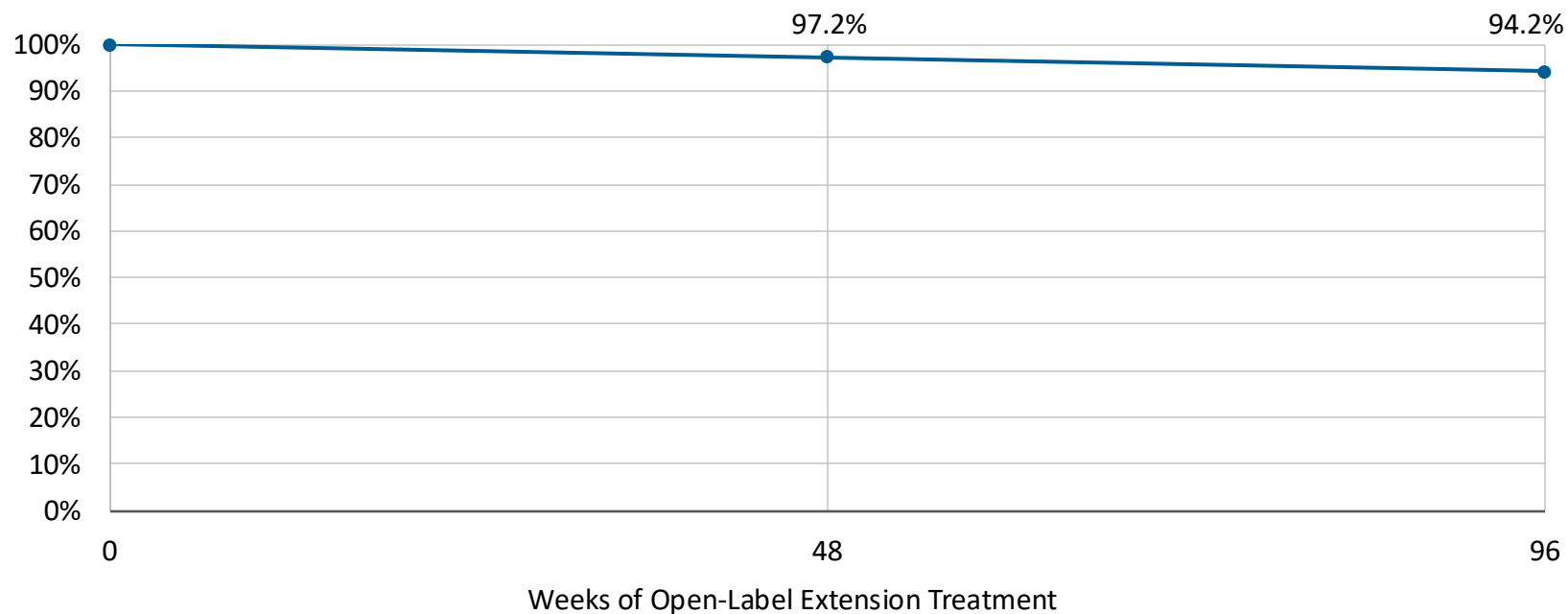
CDW: confirmed disability worsening; EDSS: Expanded Disability Status Scale  
Only disability worsenings with a trigger point during the 24-week blinded treatment period are considered. The EDSS increases during the blinded treatment phase were subsequently confirmed during open-label extension phase of the trial. Patients at risk in this analysis are 187 for vidofludimus calcium (pooling 10, 30 and 45 mg data) and 81 for placebo. The trigger event is an EDSS progression defined as an increase in the EDSS compared to Baseline of at least 1.5 points if Baseline EDSS = 0, of at least 1.0 points if Baseline EDSS of 1-5, or of at least 0.5 points if Baseline EDSS  $\geq$  5.5  
12-week CDW: The confirmation event is at least 77 days after the trigger event. At the confirmation event and each assessment between trigger and possible confirmation event, EDSS must be at least as high as at the trigger event.  
24-week CDW is defined analogously, the only difference being the time interval between trigger event and confirmation visit, which is at least 161 days.  
Full analysis set pooled cohorts 1&2 (N10 = 47, N30 = 71, N45 = 69, NPBO C1 = 69, NPBO C2 = 12)

Data confirms a signal in preventing 12-week and 24-week confirmed disability worsening events as compared to placebo. Confirmatory data will be obtained in the phase 3 ENSURE clinical program.

# EMPhASIS: Low Rates of Confirmed Disability Worsening Events

## Interim Analysis Open-Label Extension Period 12-Week CDW Events

Proportion of patients free of 12-week confirmed disability worsening after 1 and 2 years of open-label extension vidofludimus calcium treatment



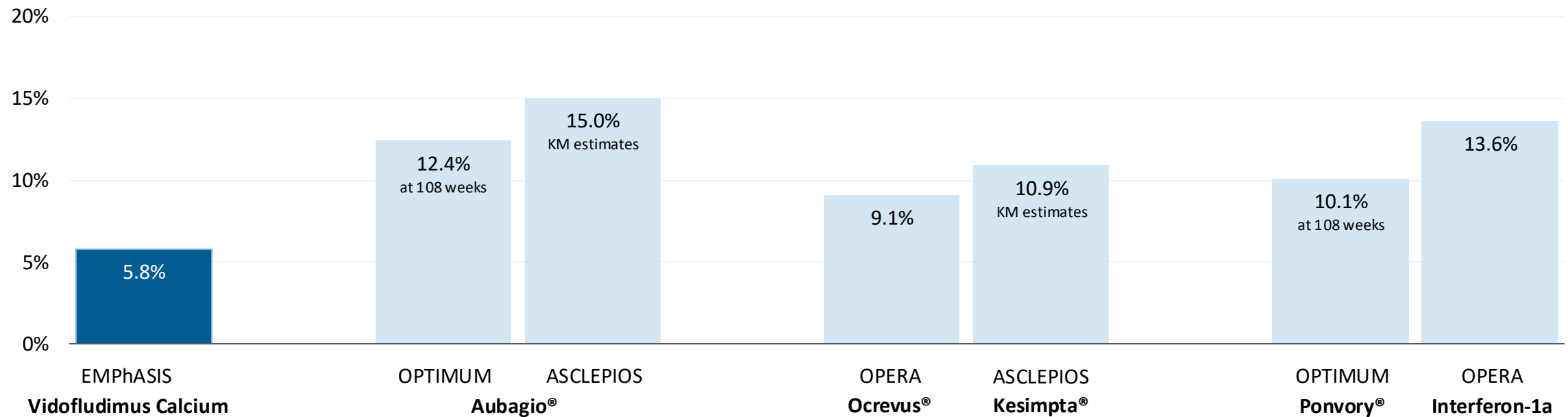
Data confirms that only a few patients on continuous treatment with vidofludimus calcium develop 12-week confirmed CDW events over a 2-year time frame.

CDW: confirmed disability worsening; EDSS: Expanded Disability Status Scale; Only disability worsenings compared to start of extended treatment are considered. Patients at risk in this analysis are 223 at 48 weeks and 158 for 96 weeks. This includes all patients randomized to either placebo or any dose of vidofludimus calcium. After 24 week of blinded treatment, all patients continued with open-label treatment with either 30 mg or 45 mg vidofludimus calcium. Survival rates and times estimated by the Kaplan-Meier method. 95% CI for rates based on Greenwood's formula.; The trigger event is an EDSS progression defined as an increase in the EDSS compared to Baseline of at least 1.5 points if Baseline EDSS = 0, of at least 1.0 points if Baseline EDSS of 1-5, or of at least 0.5 points if Baseline EDSS  $\geq$  5.5  
12-week CDW: The confirmation event is at least 77 days after the trigger event. At the confirmation event and each assessment between trigger and possible confirmation event, EDSS must be at least as high as at the trigger event.

# EMPhASIS: 12-Week Confirmed Disease Worsening After 2 Years

## Interim Analysis Open-Label Extension Period Compared to Select Historical Trials

RRMS patients with 12-week (3-months) confirmed disability worsening after 2 Years (96 Weeks) (% of patients at risk)



The trigger event is any EDSS progression during the open-label extension (OLE) period defined as an increase in the EDSS compared to start of the OLE period (Baseline) of at least 1.5 points if Baseline EDSS = 0, of at least 1.0 points if Baseline EDSS of 1-5, or of at least 0.5 points if Baseline EDSS ≥ 5.5. Patients with RRMS at risk in this EMPhASIS analysis are 158 at 96 weeks. Data cut-off was Oct 16, 2022. This includes all patients randomized to either placebo or any dose of vidofludimus calcium during the 24-week blinded treatment period and then continued with open-label treatment with either 30 mg or 45 mg vidofludimus calcium. Survival rates and times estimated by the Kaplan-Meier method. 95% CI for rates based on Greenwood's formula.; 12-week CDW: The confirmation event is at least 77 days after the trigger event. At the confirmation event and each assessment between trigger and possible confirmation event, EDSS must be at least as high as at the trigger event.; 24-week CDW is defined analogously, the only difference being the time interval between trigger event and confirmation visit, which is at least 161 days.; KM: graphical estimates from published Kaplan-Meier curves; EDSS: Expanded Disability Status Scale; RRMS: relapsing-remitting multiple sclerosis. All trials performed in RRMS. Vidofludimus Calcium: Immunic data; OPTIMUM: Kappos et al. 2021; ASCLEPIOS: Hauser et al. 2020; OPERA: Hauser et al. 2017

# Vidofludimus Calcium: Unrivaled Safety and Tolerability Profile Observed in Multiple Clinical Trials

- Safety profile similar to placebo: no general safety signals observed in clinical trials so far
- No increased rates of diarrhea, neutropenia, or alopecia
- No increased rates of infections and infestations or hematology values
- Drug exposure tested in more than 1,800 human subjects and patients, to date
- Low rates of adverse events
- No signals for hepatotoxicity or elevations of liver enzymes and no Hy's law cases observed to date



## Vidofludimus Calcium's Safety Profile to Date is Unique

	PML risk	Increased number of infections	Vaccination limitations	Gastrointestinal toxicities, incl. diarrhea	Cardiovascular risks, incl. blood pressure	Lymphopenia	Neutropenia	Risk of liver injury	Increased risk of cancer	Macular edema
Vidofludimus Calcium	●	●	●	●	●	●	●	●	●	●

● Favorable profile

PML: progressive multifocal leukoencephalopathy



# EMPhASIS: Vidofludimus Calcium Well-Tolerated With Adverse Events Similar to Placebo

Safety & Tolerability Endpoints	Placebo	Vidofludimus Calcium 30 mg	Vidofludimus Calcium 45 mg
<b>Any treatment-emergent adverse event</b>	<b>44%</b>	<b>45%</b>	<b>41%</b>
<b>Treatment-emergent adverse events occurring in &gt;5% of total patients by preferred term</b>			
Headache	6%	4%	6%
Nasopharyngitis	4%	4%	7%
<b>Treatment-emergent adverse events occurring in 2%-5% of total patients by preferred term</b>			
Upper respiratory tract infection	4%	3%	0%
Viral respiratory tract infection	4%	0%	3%
<b>Treatment-emergent adverse events occurring in &gt;1 to &lt;2% of total patients by preferred term</b>			
Back pain	3%	1%	0%
ALT increase	3%	1%	0%
Influenza	3%	0%	1%
Liver enzymes elevated	1%	1%	3%
Nausea	1%	1%	3%
Bronchitis	1%	0%	3%
Alopecia	0%	4%	1%
Fatigue	0%	3%	3%
Rash	0%	3%	3%
Cystitis	0%	1%	4%
<b>Treatment-emergent adverse events by severity</b>			
Mild	33%	41%	30%
Moderate	12%	16%	23%
Severe	1%	0%	0%
<b>Series adverse events</b>	<b>1%</b>	<b>3%</b>	<b>0%</b>
<b>Treatment discontinuation for any reason</b>	<b>7%</b>	<b>3%</b>	<b>6%</b>
<b>Treatment-emergent adverse events leading to treatment discontinuation</b>	<b>4%</b>	<b>0%</b>	<b>3%</b>

The observed adverse events were generally mild in nature. There were very few adverse events with medium and high incidence rate.

# EMPhASIS: Patients Feel Well-Treated With Vidofludimus Calcium



Reflected in **Low Discontinuation Rates** for Vidofludimus Calcium-Treated RRMS Patients, Considerably Lower Than Placebo\*

	Vidofludimus Calcium	Glatiramer Acetate [1]	Aubagio® [2]	Tecfidera® [3]	Gilenya® [4]	Zeposia® [5]
Administration	Oral	Injectable	Oral	Oral	Oral	Oral
Daily Dose	30 mg QD	20 mg QD	14 mg QD	240 mg TID	1.25 mg QD	1 mg QD
Treatment Period	24 weeks	9 months	36 weeks	24 weeks	6 months	24 weeks
<b>Active Treatment</b>	<b>2.8%</b>	<b>5.9%</b>	<b>19.3%</b>	<b>15.6%</b>	<b>5.4%</b>	<b>2.3%</b>
<b>Placebo</b>	<b>7.2%</b>	<b>5.8%</b>	<b>6.6%</b>	<b>9.2%</b>	<b>6.5%</b>	<b>3.4%</b>

\*The table summarizes the data on treatment/study discontinuation rates of the commercial dose in phase 2 trials of RRMS drugs. If the commercial dose was not included in the phase 2 trials, the dose closest to the commercial dose was shown. This high-level comparison is provided for illustrative purposes only, is based on publicly available data and does not purport to be a comprehensive comparison or depiction of the other trials. Larger data sets than presented in this presentation are publicly available for certain of the compounds included on this slide. Please note that these results are taken from placebo-controlled trials, and these medications have not been tested in head-to-head assessments.

[1] Comi et al. Ann Neurol. 2001;49(3):290-297 [2] O'Connor et al. Neurology. 2006;66(6):894-900 [3] Kappos et al. Lancet. 2008;372(9648):1463-1472 [4] Kappos et al. N Engl J Med. 2006;355(11):1124-1140 [5] Cohen JA, Arnold DL, Comi G, et al. Lancet Neurol. 2016;15(4):373-381; QD: quaque die = once-daily; TID: ter in die = three times daily; RRMS: relapsing-remitting multiple sclerosis

# ENSURE: Ongoing Pivotal Phase 3 Trials in Relapsing MS

NCT05134441 & NCT05201638



Coordinating Investigator

Robert J. Fox, M.D.  
Cleveland Clinic



## Included Patient Population: Relapsing Forms of MS

- Adult patients aged 18 to 55 years
- Established diagnosis of MS (revised McDonald criteria 2017)
- Confirmed relapsing MS (1996 Lublin criteria<sup>[1]</sup>)
- Active disease as defined by Lublin 2014
- EDSS score at screening between 0 to 5.5

[1] Lublin FD, et al. Neurology. 2014;83(3):278-286

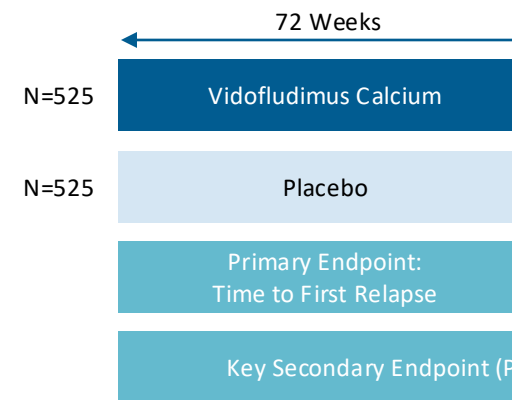
MS: multiple sclerosis; EDSS: Expanded Disability Status Scale; QD: quaque die = once-daily



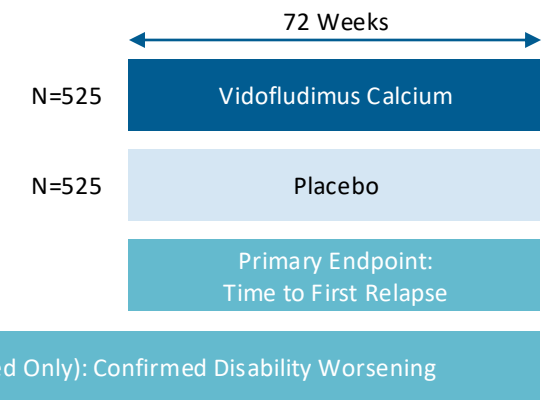
## Two Multicenter, Randomized, Double-Blind Phase 3 Trials

- Approximately 1,050 patients in each trial
- More than 100 sites in the United States, Latin America, Central and Eastern Europe, and India in each trial
- Randomization to 30 mg vidofludimus calcium or placebo QD
- Completion ENSURE-1 expected in Q2/2026, ENSURE-2 in H2/2026

### ENSURE-1: Vidofludimus Calcium vs. Placebo



### ENSURE-2: Vidofludimus Calcium vs. Placebo



# ENSURE: Positive Outcome of Interim Futility Analysis



- Unblinded Independent Data Monitoring Committee (IDMC) confirmed predetermined **futility criteria have not been met**
- IDMC recommended **continuing trial without changes**, including **no need for a potential upsizing**
- Based on a pre-specified assessment after approximately half of the planned first relapse events occurred in the double-blind treatment periods
- Based on a conditional power analysis by an unblinded IDMC
- Immunic has remained blinded and has not seen any of the data available to the IDMC to make their recommendations



Vidofludimus Calcium in Multiple Sclerosis (MS)

---

# Development in Progressive Multiple Sclerosis (PMS)

# CALLIPER: Designed to Lay the Foundation for a Potential Confirmatory Phase 3 Program in Progressive Multiple Sclerosis



Phase 2 trial evaluating the efficacy, safety and tolerability of 45 mg vidofludimus calcium

- In a broad set of PMS patient subtypes: primary progressive MS, non-active secondary progressive MS and active secondary progressive MS
- Across multiple MRI, clinical and biomarker outcomes



Goal is to determine whether there is sufficient evidence of efficacy and safety to warrant a confirmatory phase 3 program in one or more of the PMS subtypes

- Achieve proof-of-concept for one or more of the PMS subtypes
- Properly plan a phase 3 program – the current phase 2 trial is large enough to provide a reasonable point estimate on clinical disability worsening which is the accepted clinical endpoint by regulators for a phase 3 study
- Validate the potential neuroprotective effects of vidofludimus calcium in an MS patient population where disease is no longer driven by focal inflammation – and hence, any disability benefit demonstrates an effect of the drug on slowing down PIRA

MS: multiple sclerosis; PMS: progressive MS; MRI: magnetic resonance imaging; PIRA: progression independent of relapse activity

# CALLIPER: Patients with PMS, Particularly Non-Active Disease, Remain Underserved With Limited to No Treatment Options

Although over 15 treatments have been approved for RMS in recent years, patients with PMS remain underserved with limited to no treatment options

Currently, there is no treatment for non-active/non-relapsing SPMS and only one treatment approved for PPMS<sup>[1]</sup>

Most therapies targeting relapses through anti-inflammatory mechanisms have not shown a clinical benefit in PMS<sup>[2]</sup>



Neurodegenerative pathological mechanisms in the brain are believed to form the dominant origin of PMS requiring drugs with neuroprotective properties to be effective<sup>[3]</sup>

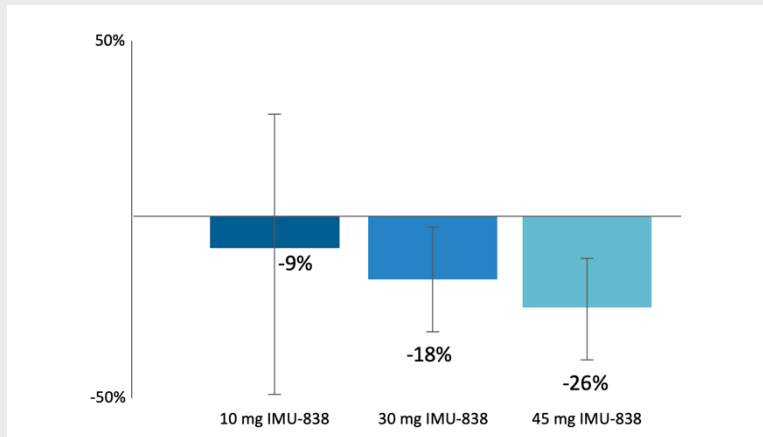
Vidofludimus calcium activates the neuroprotective transcription factor nuclear receptor related 1 (Nurr1)<sup>[4]</sup>, which is associated with direct neuroprotective effects shown on both neuronal and microglial cells in preclinical experiments

[1] <https://www.fda.gov/news-events/press-announcements/fda-approves-new-drug-treat-multiple-sclerosis> [2] Ontaneda D., Fox R.J., Curr Opin Neurol. 2015 Jun;28(3):237-43 [3] Amin M., Hersh C.M., Neurodegener Dis Manag. 2023 Feb;13(1):47-70 [4] Viator et al., Journal of Medicinal Chemistry 2023 66 (9), 6391-6402 / RMS: relapsing multiple sclerosis; PMS: progressive multiple sclerosis; SPMS: secondary progressive multiple sclerosis; PPMS: primary progressive multiple sclerosis

# Phase 2 EMPHASIS Trial Outcomes Drove Excitement for PMS Treatment Potential

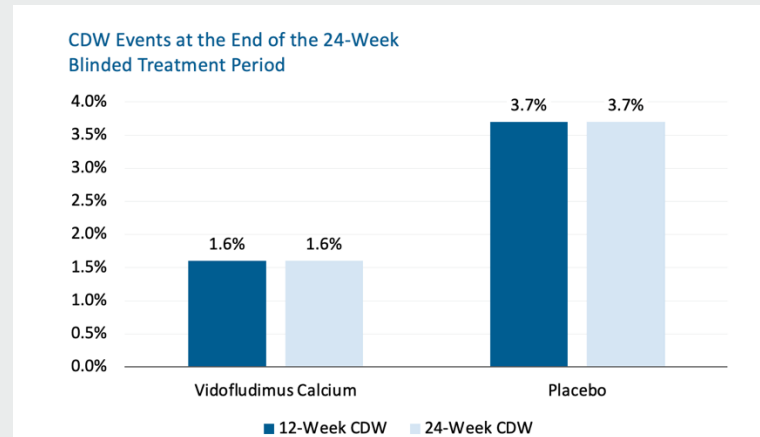
In the phase 2 EMPHASIS trial in RRMS, the following observations provided the rationale for testing vidofludimus calcium as a possible neuroprotective therapy in PMS:

Dose-dependent reduction of the biomarker serum neurofilament light chain (NfL)



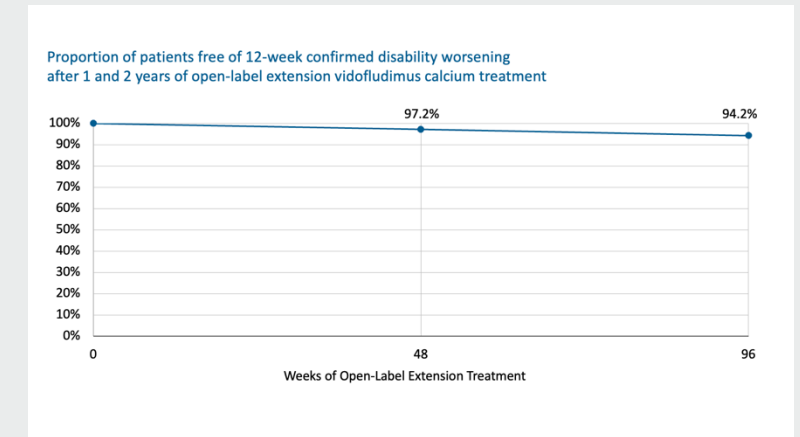
EMPHASIS: vidofludimus calcium showed a remarkable reduction in NfL levels after 24 weeks in all active doses tested compared with placebo

Substantial numerical reduction of confirmed disability worsening (CDW) favoring vidofludimus calcium



EMPHASIS: vidofludimus calcium showed a signal in preventing 12-week and 24-week CDW events as compared to placebo

Low rates of confirmed disability worsening events (<6% of patients) in 2-year open-label treatment

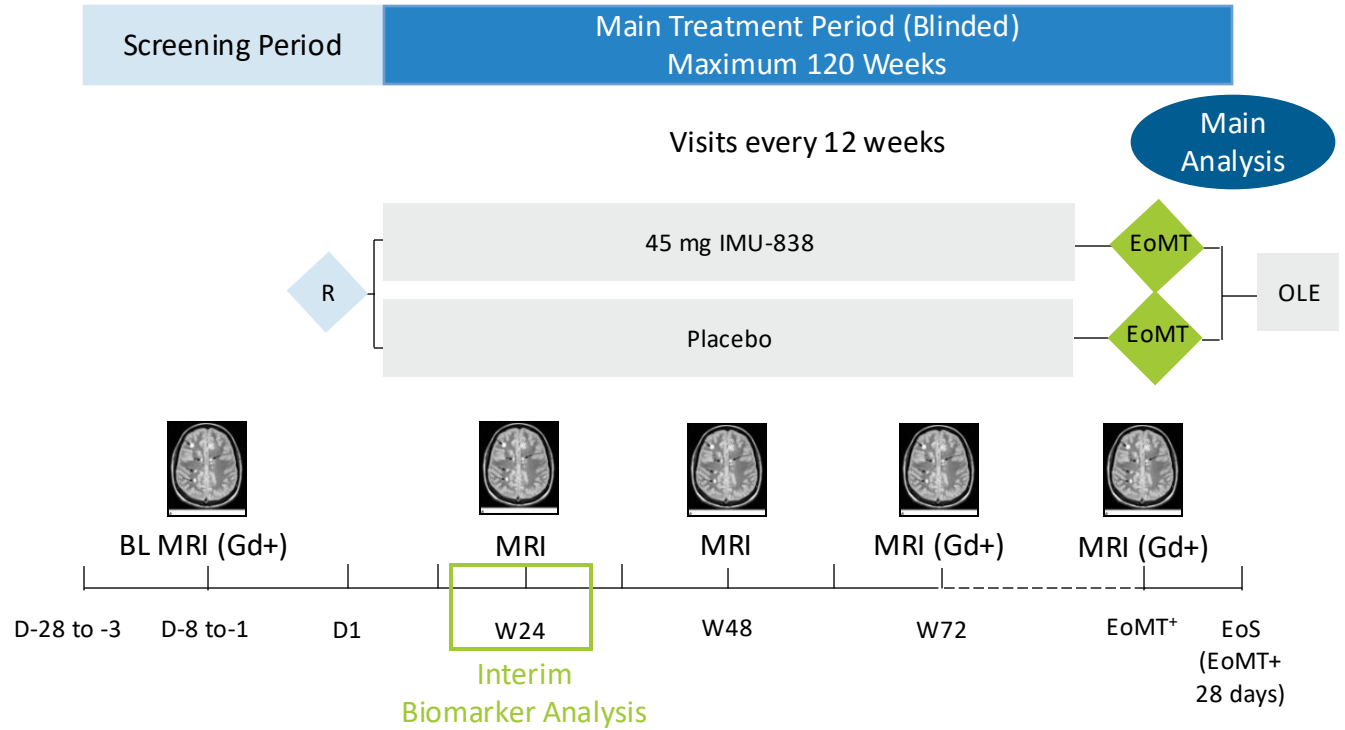


EMPHASIS: only a few patients on continuous treatment with vidofludimus calcium develop 12-week CDW events over a 2-year time frame



# CALLIPER: Ongoing Phase 2 Clinical Trial in Progressive MS

## NCT05054140



Coordinating Investigator: Robert J. Fox, M.D., Cleveland Clinic

+EoMT: at W120 or when last enrolled patient reaches W72

BL: baseline; D: day; EoMT: end of main treatment period; EoS: end of study; MRI: magnetic resonance imaging; Gd+: gadolinium-enhancing; OLE: open-label extension; R: randomization; W: week; QD: quaque die = once-daily; EDSS: Expanded Disability Status Scale; PPMS: primary progressive multiple sclerosis; SPMS: secondary progressive multiple sclerosis



### Multicenter, Randomized, Double-Blind, Placebo-Controlled Phase 2 Trial

- 467 patients enrolled at more than 70 sites in North America, Western, Central and Eastern Europe
- Randomization to 45 mg vidofludimus calcium or placebo QD
- Primary endpoint: annualized rate of percent brain volume change up to 120 weeks
- Key secondary endpoint: time to 24-week confirmed composite disability progression based on EDSS, timed 25-foot walk and 9-hole peg test
- Blinded main treatment period up to 120 weeks
- Optional, approximately 8-year, open-label extension period



### Included Patient Population: Progressive Forms of MS

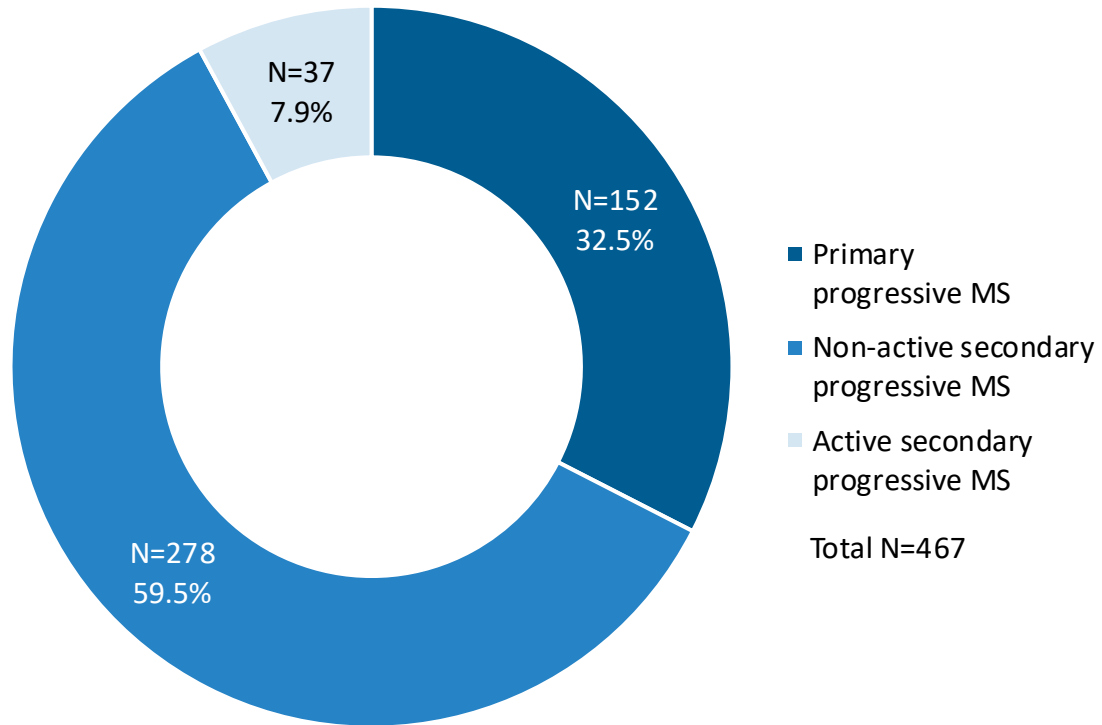
- Adult patients aged 18 to 65 years
- PPMS or SPMS diagnosis (revised McDonald criteria 2017)
- EDSS score at screening between 3.0 to 6.5
- No evidence of relapse in last 24 months before randomization
- Evidence of disability progression

# CALLIPER: Patient Demographics and Baseline Characteristics

## Total Study Population of 467 Enrolled Patients



### Progressive Disease Subtypes



### Baseline Characteristics

Baseline Patient Characteristics	Total (N=467)
Age [years], median (min-max)	51.0 (21-65)
Gender (n and % female)	302 (64.7%)
Race (n and % White)	460 (98.7%)
BMI [kg/m <sup>2</sup> ], median (min-max)	25.0 [15.8 – 46.6]
SDMT [points], median (min-max)	35.0 [0-180]
EDSS at Visit 1, median (min-max)	5.5 [2.5-6.5]
MS relapses during last 24 months, median (min-max)	0.0 [0-1]
Gd+ lesions at baseline MRI (%)	16.3%

Disease subtype information are used as diagnosis entered by investigator at study entry. Definition non-active SPMS (according to CALLIPER protocol): no evidence of relapse in the last 24 months before randomization, AND patients showing no evidence of Gd+ MRI lesions in the brain or spinal cord in the last 12 months; definition non-relapsing SPMS: no evidence of relapse in the last 24 months before randomization. PMS subtypes as assessed by the investigator at study entry and as of deadline for the interim analysis in October 2023. Final CALLIPER analysis will be performed based on "as randomized", so the PMS subtype numbers may slightly change. / BMI: body mass index; SDMT: Symbol Digit Modalities Test; EDSS: Expanded Disability Status Scale; Gd+: gadolinium-enhancing; MRI: magnetic resonance imaging

# PPMS Patients Treated with Ocrelizumab That Achieved Lower Levels of NfL Had a Lower Risk for Future Disability



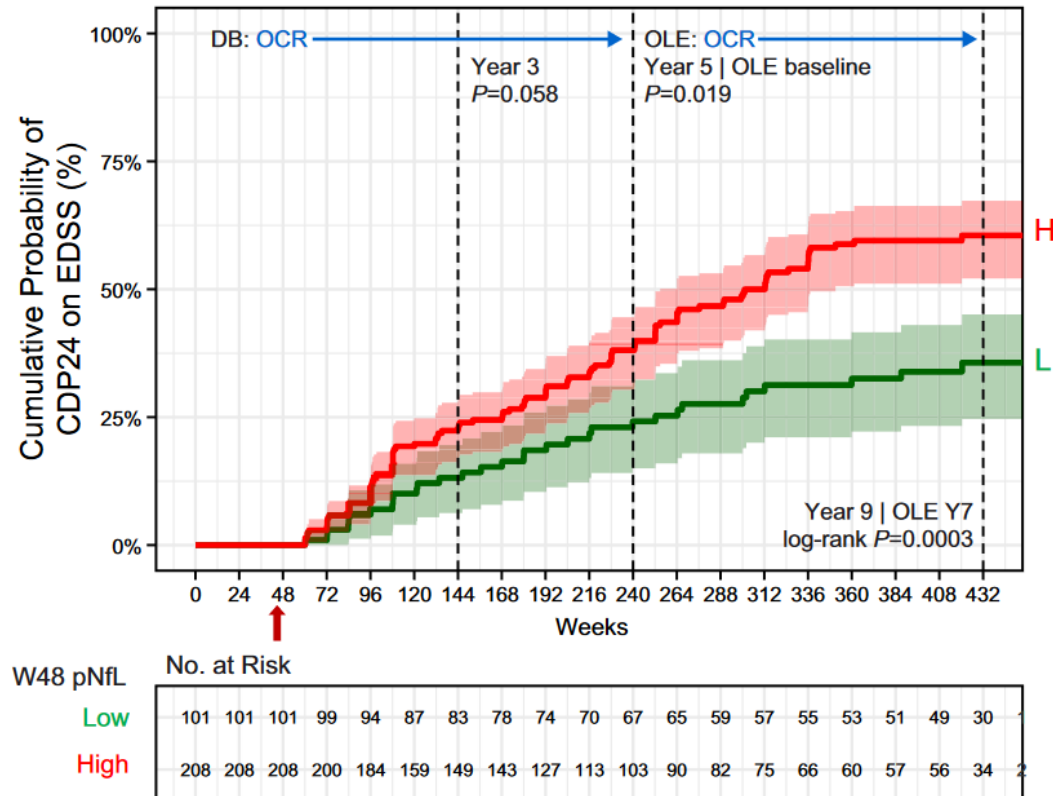
## Ocrelizumab ORATORIO Study in PPMS as Historical Comparison

- Blood NfL levels re-baselined at Week 48, an optimized cut-off was created between high (H) and low (L) NfL levels
- Patients then followed in continuing double-blind and/or OLE treatment with ocrelizumab, monitored for 24-week CDP over 8 years

### Findings:

- Relationship found between Week 48 blood NfL and risk for subsequent 24-week CDP in PPMS patients
- **Patients with low NfL levels have a lower risk of future disability worsening**

### ORATORIO (OCR arm)

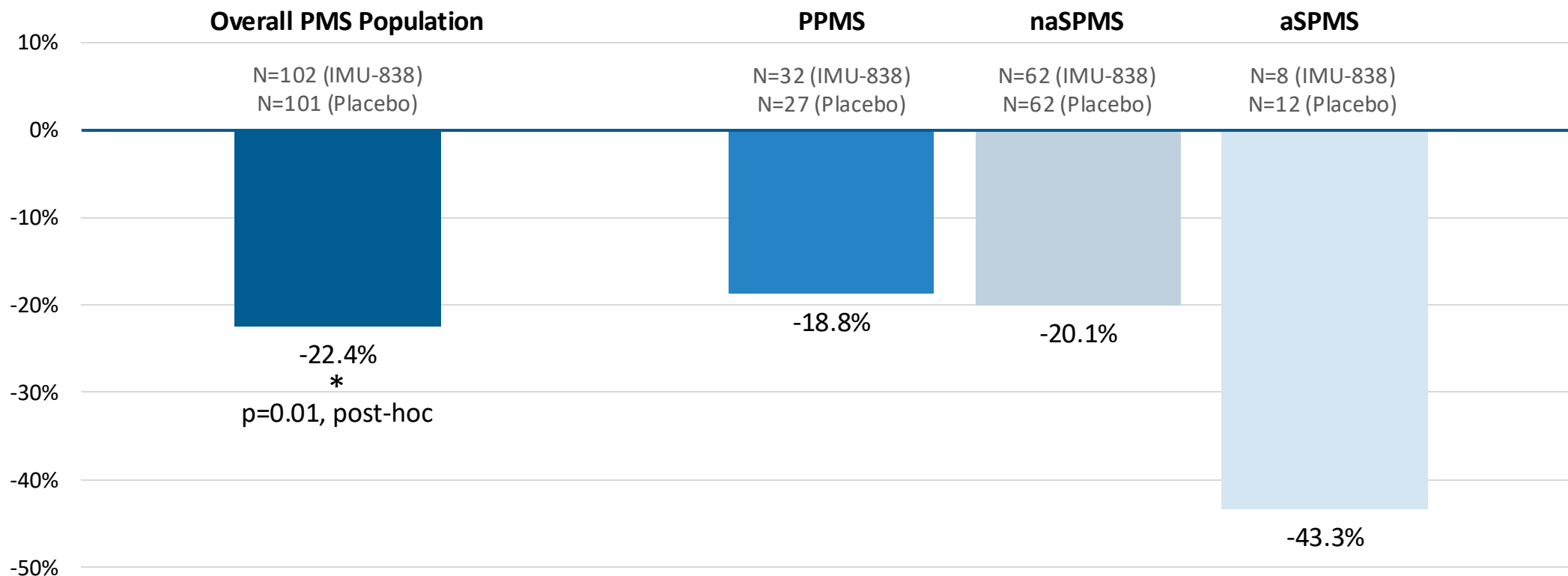


Bar-Or A. et al., EBioMedicine. 2023 Jul;93:104662

PPMS: primary progressive multiple sclerosis; OCR: ocrelizumab; DB: double-blind; OLE: open-label extension; EDSS: Expanded Disability Status Scale; H: high; L: low; pNfL: plasma neurofilament light; sNfL: serum neurofilament light; CDP: confirmed disability progression

# CALLIPER Interim Data: Improvements in Serum NfL for Vidofludimus Calcium Consistent Throughout the Overall PMS Population and All Subtypes

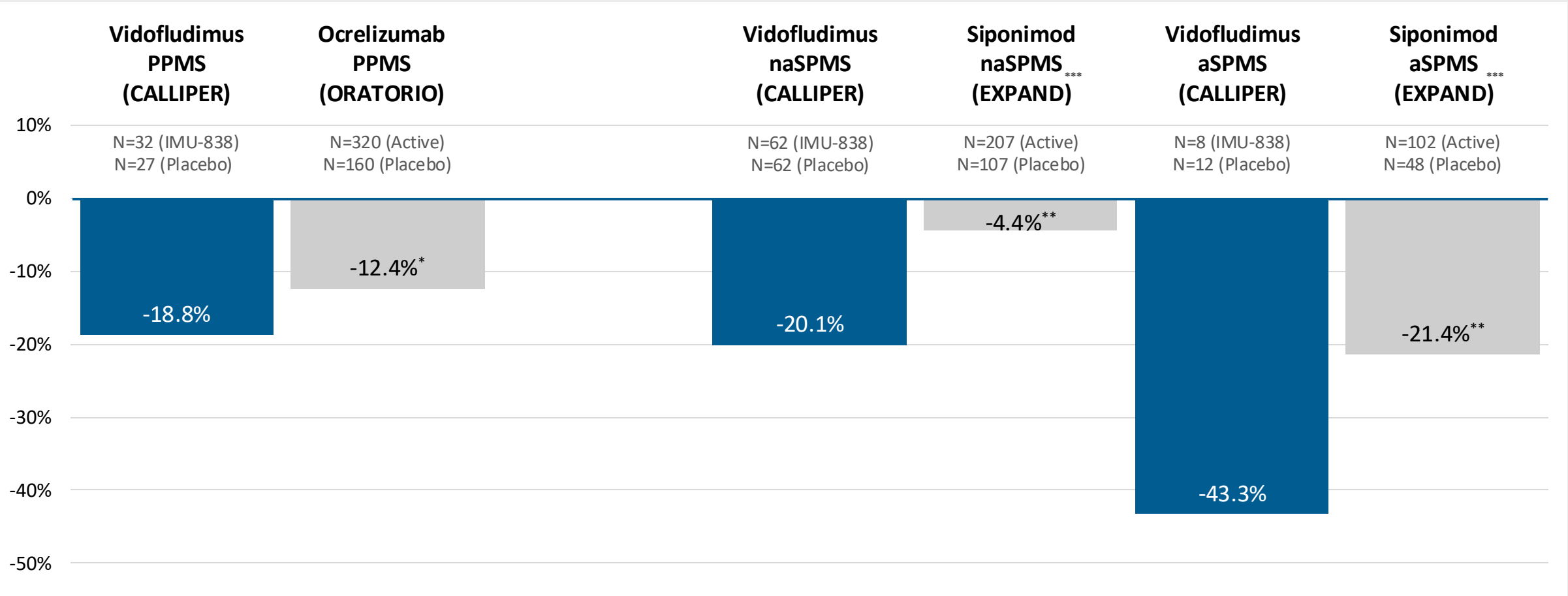
Mean Change to Week 24 as Compared to Placebo in % of Baseline



Standard deviation for change from baseline in % of baseline: CALLIPER week 24: IMU-838 35.7%, PPMS: IMU-838 7.1%, naSPMS: IMU-838 14.7%, aSPMS: IMU-838 10.3%, 95% Hodges-Lehmann confidence bound EMPHASIS week 24 for 45mg IMU-838: lower boundary -41.0%, upper boundary -12.0%, includes all randomized patients with available neurofilament data at interim analysis, arithmetic mean value for group averages; aSPMS and naSPMS designation as per diagnosis by clinical investigator at study entry  
NfL: neurofilament light chain; PMS: progressive multiple sclerosis; PPMS: primary PMS; SPMS: secondary PMS; na: non-active; a: active

# NfL Reduction Compares Favorably with Other MS Therapies

## CALLIPER Interim Data Compared to Select Historical Trials



CALLIPER: N = Number of patients in the 45 mg IMU-838 groups, only patients with both baseline and week 24 values considered for change from baseline analysis, arithmetic mean value for group averages; includes all randomized patients with available NfL data at interim analysis  
 Standard deviation for change from baseline in % of baseline: CALLIPER week 24: IMU-838 35.7%; 95% Hodges-Lehmann confidence bound EMPHASIS week 24 for 45mg IMU-838: lower boundary -41.0%, upper boundary -12.0%

ORATORIO: Bar-Or A. et al., EBioMedicine. 2023 Jul;93:104662; EXPAND: Leppert D., et al., Neurology. 2022 May 24;98(21):e2120-e2131; OBEO: Cross A. et al., Neurology Apr 2019, 92 (15 Supplement) S56.008; evobrutinib: Kuhle J. et al., AAN 2021 Virtual Congress

\*plasma NfL levels; \*\*12-month data, geometric mean; \*\*\* Displayed are data for subpopulation without relapses (naSPMS) and with relapses (aSPMS); NfL: neurofilament light chain; PPMS: primary progressive multiple sclerosis; na: non-active; a:active

# Positive Interim Biomarker Data of Vidofludimus Calcium in Progressive Multiple Sclerosis



Biomarker evidence that vidofludimus calcium's activity extends beyond the previously observed anti-inflammatory effects, thereby further reinforcing its neuroprotective potential



Vidofludimus calcium aiming to address high unmet medical need in non-active SPMS where no relevant treatments are available in the US



Overall CALLIPER trial ongoing; top-line data of the full 467 patients expected in April 2025



Results of this interim analysis may inform the ability to potentially reduce PIRA events in the ongoing phase 3 ENSURE program in RMS



# CALLIPER: Results Will Educate Potential Phase 3 Program in Progressive Multiple Sclerosis With a Focus on Clinical and Safety Outcomes

What Would Make CALLIPER a Positive Study?

**A medically meaningful and numerical reduction of disability, measured by EDSS+/EDSS, supported by biomarker, functional and MRI data**



## What Is EDSS+?

- Measures disability outcomes beyond the established EDSS score
- Composite endpoint that includes 9-hole peg test and timed 25-foot walk test in addition to EDSS
- Captures dimensions of upper and lower extremity utilization which are important and relevant for patients
- Has become acceptable to regulators in recent years for progressive MS study outcomes



## 24-Week Confirmed Disability Worsening

- Decision point for conducting pivotal phase 3 trial
- Relatively large sample size and the overall expected number of disability events during the CALLIPER trial expected to provide clinically meaningful and reliable assessment of point estimate of treatment effect (hazard ratio) for vidofludimus calcium in PMS patients

EDSS: Expanded Disability Status Scale; MRI: magnetic resonance imaging; PMS: progressive multiple sclerosis

# CALLIPER: Additional Outcome Measures



## MRI-Based Endpoints

- Change in brain volume has traditionally been the most widely studied technical MRI endpoint in PMS populations
- Newer MRI-based endpoints have shown promise in PMS (such as slowly expanding lesions, grey/white matter volume, cervical spinal dimensions and thalamic atrophy) and are also available in the CALLIPER trial
- The totality of MRI-based outcomes provide **mechanistic biologic correlate** for observed functional and disability study outcomes



## Biomarkers

- Serum neurofilament light chain (NfL) is a biomarker for neuronal loss, relevant for diffuse neuronal loss in PMS
- Glial fibrillary acidic protein (GFAP) is a biomarker for reduction of microglia and astrocyte activity that is believed to be involved in PMS
- Both, NfL and GFAP, are known to correlate with clinical outcomes and **can predict future risk of disease progressions and disability** events<sup>[1,2]</sup>
- Provide **independent confirmation of clinical endpoints** and comparison to other PMS trials



## Functional Outcomes

- Functional outcomes provide readout for improvement in or maintenance for the **quality of life** for PMS patients
- CALLIPER trial includes a broad array of functional assessments to measure effects on patients beyond disability, including fatigue, upper and lower extremity function, cognition, assessment of overall well-being and treatment satisfaction, visual acuity
- Expected to provide patient-centric data important for payers and for differentiation of vidofludimus calcium

[1] Benkert P. et al.; Ann Neurol. 2024 Oct 16 [2] Bar-Or A. et al., EBioMedicine. 2023 Jul;93:104662  
PMS: progressive multiple sclerosis; MRI: magnetic resonance imaging



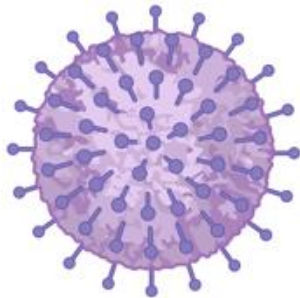
# Vidofludimus Calcium: DHODH Inhibition Provides Broad-Spectrum Antiviral Activity Against Different Pathogenic Viruses



Inhibits Epstein-Barr Virus (EBV) Replication and Reactivation

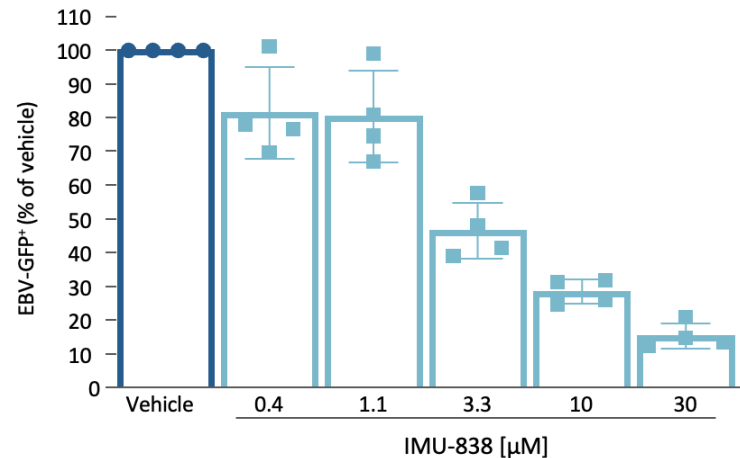
By targeting the host cell metabolism, vidofludimus calcium has shown to be active against different RNA and DNA viruses *in vitro*

- Shows antiviral activity with EC<sub>50</sub> values in single digit μM range
- Including strong anti-EBV activity



Showed Dose-Dependent Inhibition of EBV Reactivation

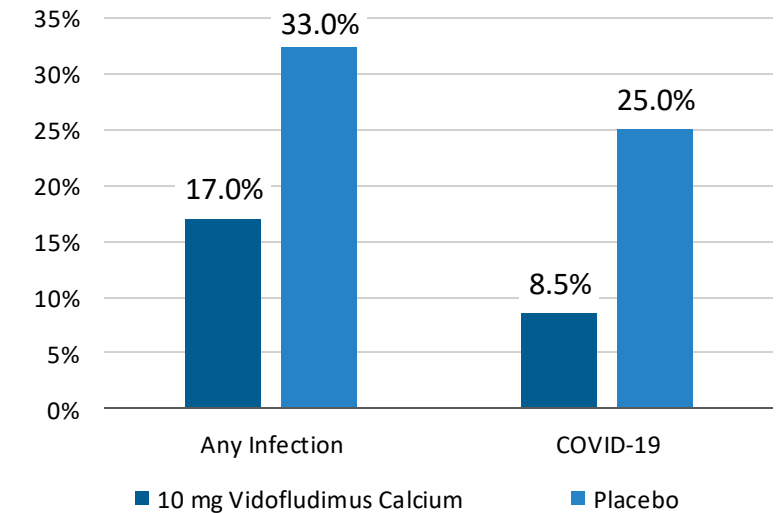
Anti-Akata-BX1-EBV-GFP stimulated with hlgG



Decreased Number of Opportunistic SARS-CoV-2 Infections

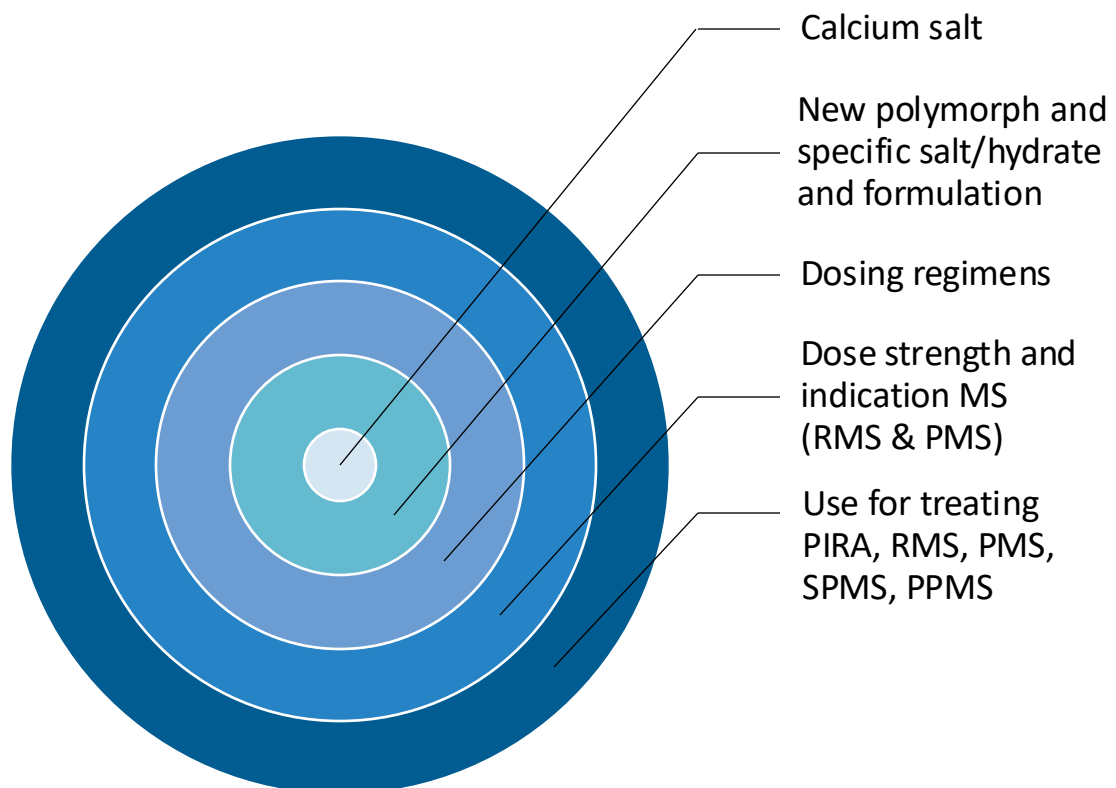
Vidofludimus calcium showed interesting hints for clinical anti-SARS-CoV-2 activity in the phase 2 EMPHASIS trial in RRMS

- Number of reported COVID-19 cases Cohort 2:



Left: Eur J Clin Invest. 2020;50:e13366 / middle: Marschall et al., Poster ECTRIMS 2021 / right: Immunic data; DHODH: dihydroorotate dehydrogenase; RNA: ribonucleic acid; DNA: deoxyribonucleic acid; EC50: half-maximal effective concentration; EBV: Epstein-Barr virus; hlgG: human immunoglobulin G; SARS-CoV-2: severe acute respiratory syndrome coronavirus; COVID-19: coronavirus disease 2019; RRMS: relapsing-remitting multiple sclerosis

# Several Layers of Patents Protecting Vidofludimus Calcium



## Eight Independent Patent Families Protecting Vidofludimus Calcium

- IP for superior calcium salt and specific polymorph of the drug product
  - Additional patent directed to specific polymorph matching the only polymorph in the drug product granted in the US and other jurisdictions
- Broad IP for all salts directed to dosing regimens, covers all label-relevant dosing schemes, granted in the US and Japan
- Dose strengths subject of another granted patent in the US
- Use of vidofludimus for treating PIRA as well as other neurodegenerative diseases, also including biomarker-based subgroups, filed in 2023
- Another level of protection expected by data exclusivity based on vidofludimus calcium's classification as New Chemical Entity (NCE)



Patent portfolio expected to provide exclusivity into 2041 in the US, unless extended further

# Phase 3 Pipeline of Oral DMTs in Both RMS and PMS: Vidofludimus Calcium Is the Only Non-BTKi

## Nurr1 Activator / DHODH Inhibitor

**Vidofludimus Calcium**  
Phase 3 & Phase 2



**RELAPSING MS (ENSURE-1 & ENSURE-2)**

Completion expected 2026

**PROGRESSIVE MS (CALLIPER)**

Data expected April 2025

## BTK Inhibitor

**Telebrutinib** | Phase 3



Acquired from  
Principia for \$3.7 billion

**RELAPSING MS (GEMINI 1 & GEMINI 2)**

Data reported September 2024

**nrSPMS (HERCULES)**

Data reported September 2024

**PPMS (PERSEUS)**

Data expected July 2025

**Fenebrutinib** | Phase 3



**RELAPSING MS (FENhance 1 & FENhance 2)**

Data expected Q4/2025

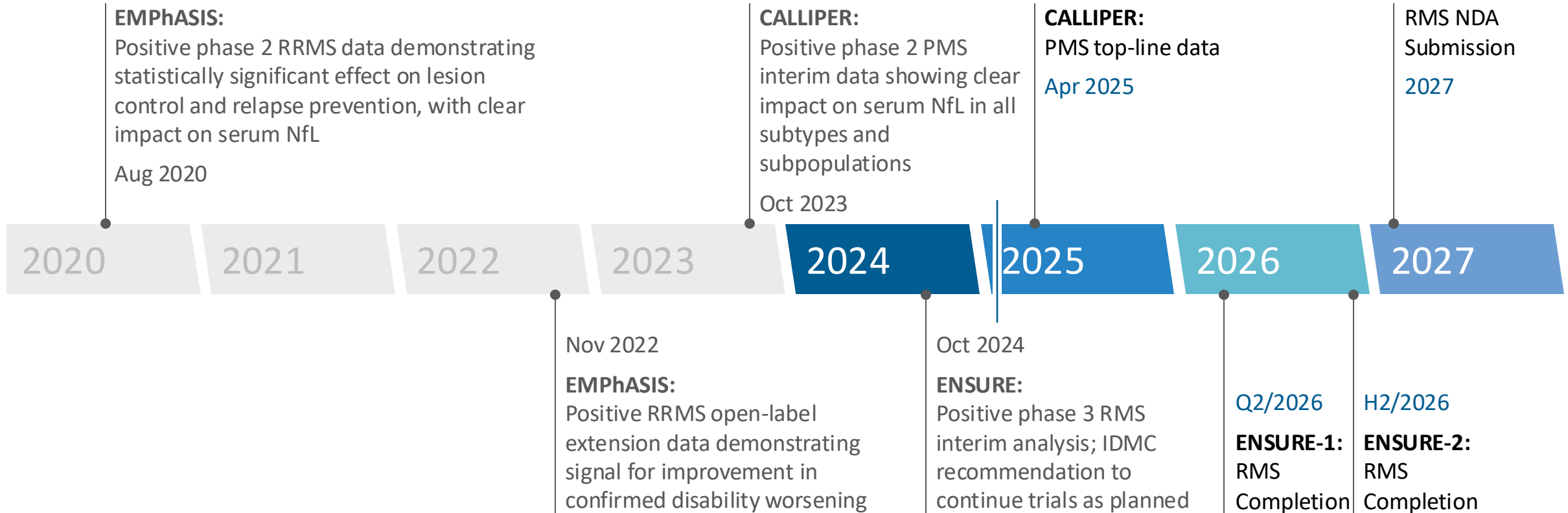
**PPMS (FENtrepid)**

Data expected Q4/2025

DMT: disease-modifying therapy; RMS: relapsing MS; PMS: progressive MS; nrSPMS: non-relapsing secondary progressive MS; PPMS: primary progressive MS; BTKi: Bruton Tyrosine Kinase inhibitor; Nurr1: nuclear receptor related 1; DHODH: dihydroorotate dehydrogenase

# Vidofludimus Calcium in Multiple Sclerosis

## Consistent and Differentiated Results to Date Support Straightforward Path Towards Potential Regulatory Approvals



Although we currently believe that each of these goals is achievable, they are each dependent on numerous factors, most of which are not under our direct control and can be difficult to predict. We plan to periodically review this assessment and provide updates of material changes as appropriate. / MS: multiple sclerosis; RRMS: relapsing-remitting MS; RMS: relapsing MS; PMS: progressive MS; NfL: neurofilament light chain



IMU-856

---

# Restoring a Healthy Gut through Renewal of the Bowel Wall

# IMU-856 Could Be the Perfect New Solution for Treating Gastrointestinal Disorders Without Harming the Immune System



- Innovative oral therapeutic approach applicable to a broad range of gastrointestinal disorders



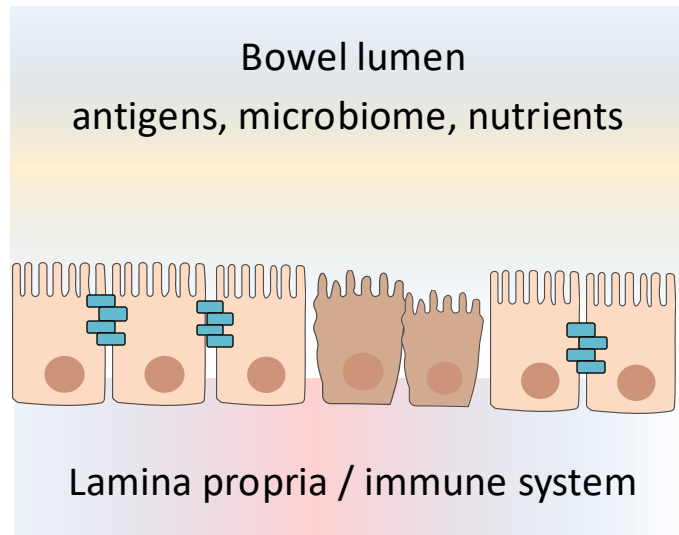
- Targets physiological intestinal epithelial regeneration



- Achieves gut wall healing without immunosuppression

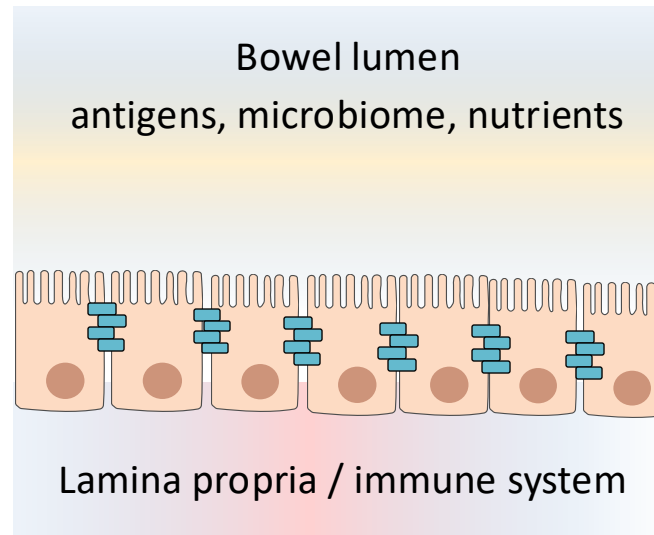
# Once-Daily, Oral IMU-856 Aims to Regenerate the Gut Wall and Barrier Function by a New Innovative Targeted Mechanism

## Damaged Gut Wall



IMU-856

## Healthy Gut Wall



## IMU-856:

- First-in-class modulator of sirtuin 6 (SIRT6), targets physiological intestinal epithelial regeneration and restoration of barrier function
- Provides protection and enhances transport of nutrients
- This new approach avoids immunosuppression

# IMU-856 Uniquely Suited for Potential Use in a Broad Spectrum of Serious Gastrointestinal Diseases

**Demonstrated clinical proof-of-concept:** Positive effects shown in a phase 1b clinical trial on **gastrointestinal architecture and function** applicable to multiple diseases with histological damage

## Celiac Disease

>2 million patients<sup>[1]</sup>

- High unmet medical need, currently no approved drugs
- Phase 2 trial to demonstrate histological and functional improvement in patients with ongoing active celiac disease

## Inflammatory Bowel Disease

>1 million patients<sup>[2]</sup>

- Potential synergies in combination with IL-23 or anti-integrin treatments to break efficacy ceiling

## Graft-Versus-Host-Disease

High-value orphan indication

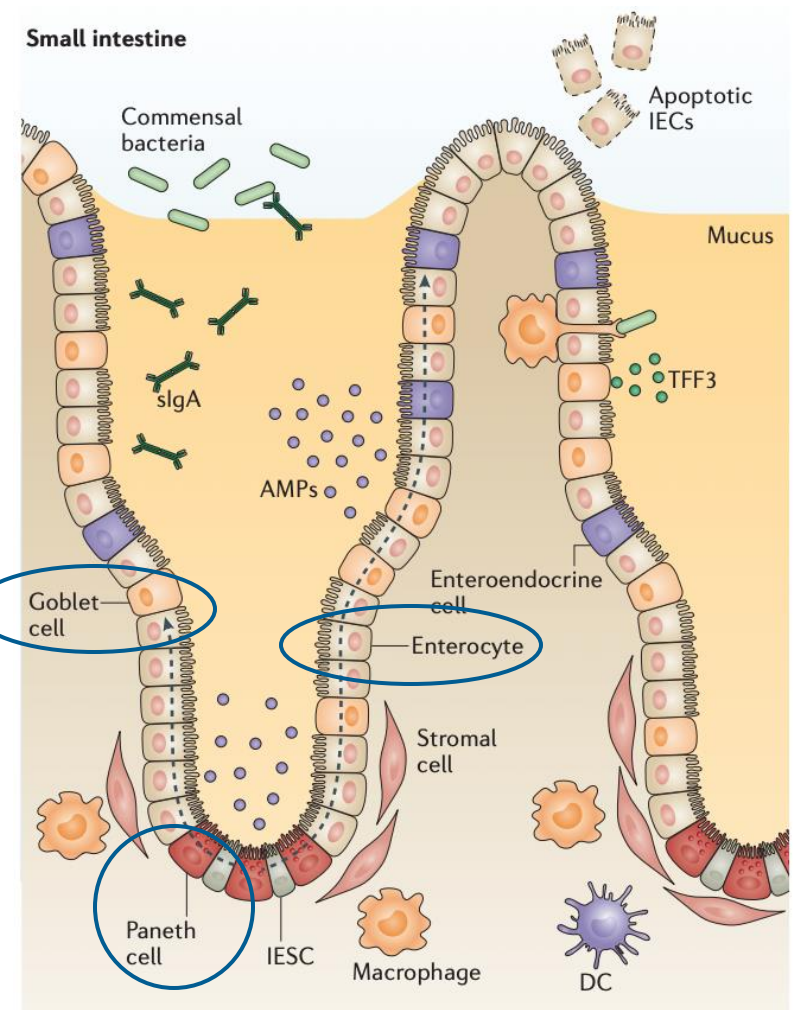
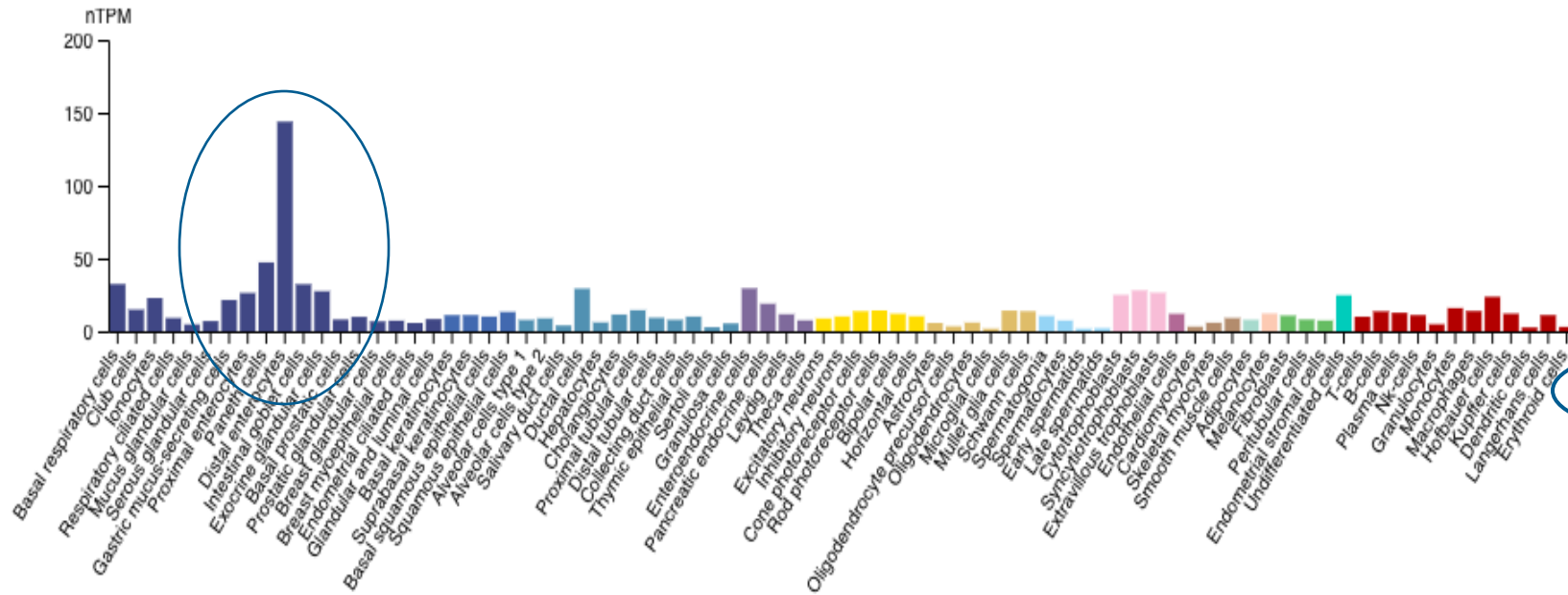
- High unmet medical need indication with large commercial potential
- Potential for rapid assessment in a small study

[1] <https://www.niddk.nih.gov/health-information/digestive-diseases/celiac-disease/definition-facts> [2] Lewis JD, et al. Gastroenterology. 2023;165(5):1197-1205.e2



# SIRT6 Target Is Selectively Expressed in Gut Epithelial Cells

## Highest mRNA Expressions in Paneth Cells, Enterocytes and Goblet Cells



Left: <https://www.proteinatlas.org/> // Right: Peterson, L., Artis, D. Nat Rev Immunol 14, 141–153 (2014); mRNA: messenger ribonucleic acid

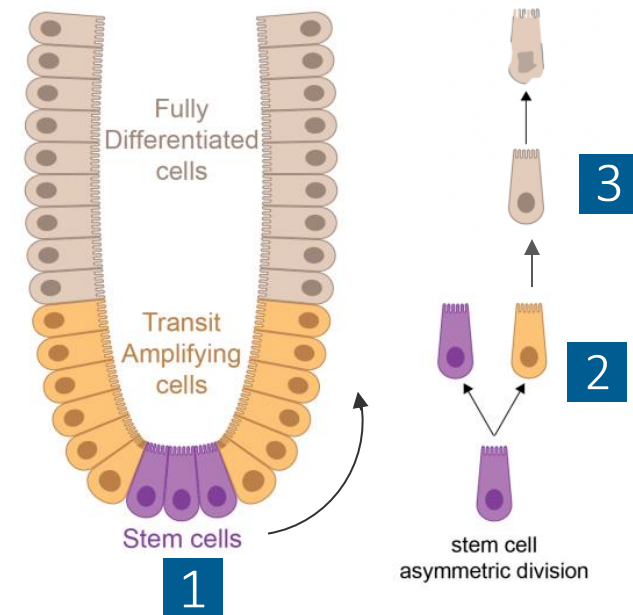
# IMU-856 Enhances the Natural Regenerative Process in the Gut

## Gut wall renewal is a normal physiological process

1. Regeneration begins in the crypts, where intestinal stem cells are located
2. Stem cells undergo asymmetric division thereby producing fully differentiated epithelial gut cells and renewing intestinal stem cells
3. These new epithelial cells are renewing the lining of crypts and villi to maintain healthy gut and proper intestinal barrier

➔ IMU-856 is an epigenetic regulator which enhances this natural tissue renewal phenotype

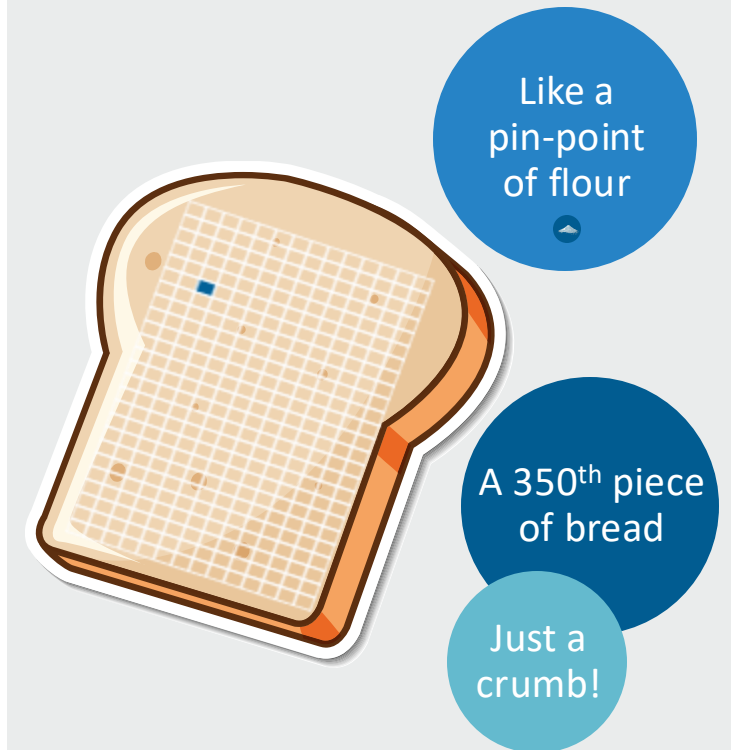
## Asymmetric cell division renews stem cells and regenerates the gut wall



# Celiac Disease Currently Has No Adequate Treatment Options

- Two million patients diagnosed with celiac disease in the US; more than one million more undiagnosed<sup>[1,2]</sup>
- Most studies report between **24% and 47%**<sup>[3-8]</sup> of patients with signs and symptoms of ongoing active celiac disease (OACD) **despite a gluten-free diet**, most likely due to continuous (inadvertent) gluten exposure
- **Only established therapeutic option is a life-long strict adherence to a gluten-free diet**<sup>[9]</sup>, which involves complete avoidance of proteins from wheat, barley, and rye
- Gluten challenge is an accepted concept for clinical trials in celiac disease

10 mg of gluten is the total limit for all foods combined for the entire day.

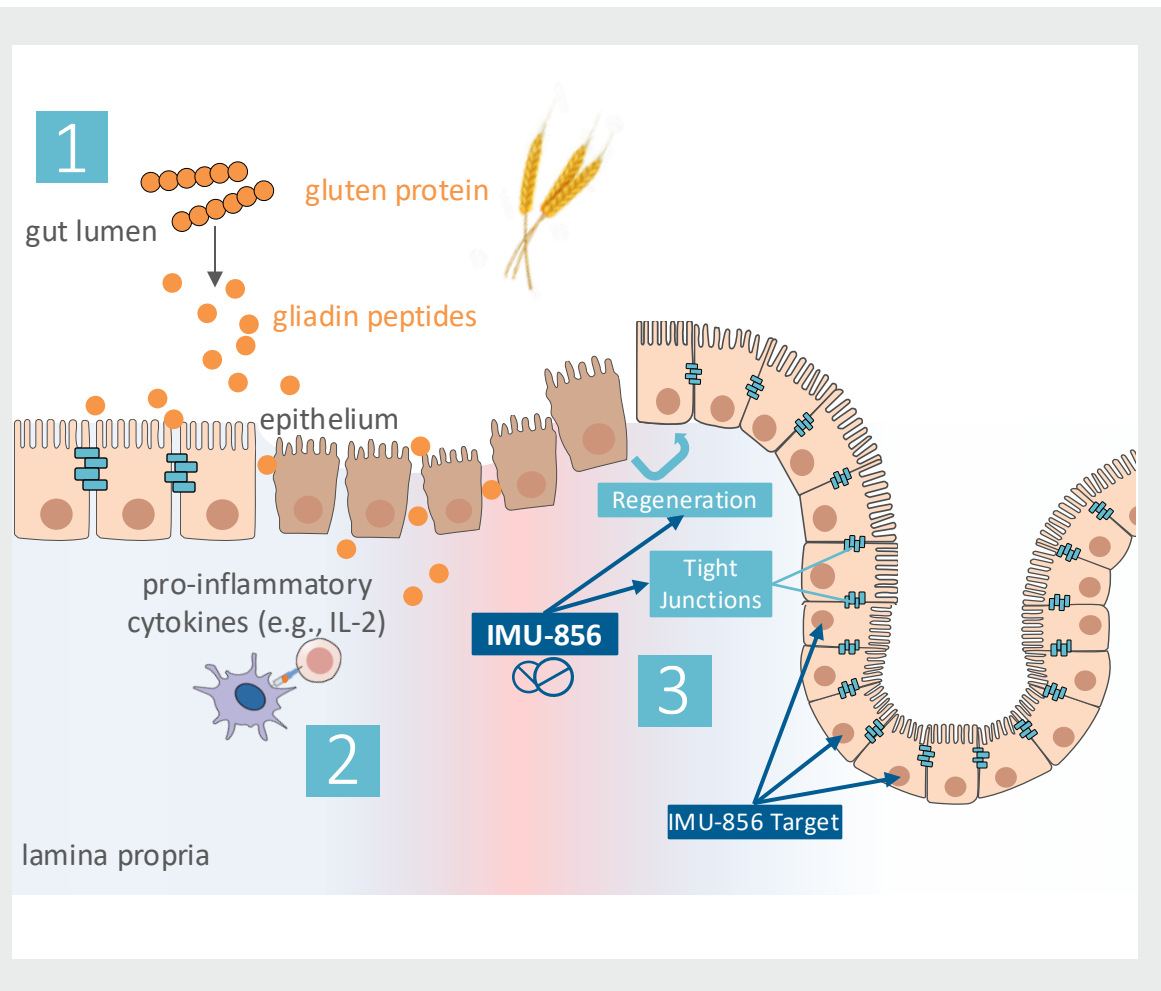


How much is 10 mg of gluten?

[1] Singh et al., Clinical Gastroenterology and Hepatology 2018;16:823–836 [2] Choung et al., Mayo Clin Proc. 2016 Dec 5:S0025-6196(16)30634-6 [3] Lebwohl et al., Aliment Pharmacol Ther. 2014 March ; 39(5): 488–495 [4] Lanzini et al., Aliment Pharmacol Ther. 2009; 29(12):1299–308 [5] Ciacci et al., Digestion. 2002; 66(3):178–85 [6] Selby et al., Scand J Gastroenterol. 1999; 34(9):909–14 [7] Rubio-Tapia et al., Am J Gastroenterol. 2010; 105(6):1412–20 [8] Sharkey et al., Aliment Pharmacol Ther. 2013; 38(10):1278–91 [9] <https://nationalceliac.org/celiac-disease-questions/understanding-gluten-levels/> (text and picture)

# First Proof-of-Concept for Gastrointestinal Disorders in Celiac Disease

## Celiac Disease is a Serious Life-Long Disease



Celiac disease is a **multifactorial, complex autoimmune disease** caused by an immune reaction against a degradation product of gluten and is strongly associated with **specific HLA class II gene variants** (HLA-DQ2 and -DQ8)<sup>[1]</sup>

- 1** ■ Gluten is degraded into **gliadin peptides** which are taken up by the bowel epithelium (trans- or paracellular)
- 2** ■ In patients with a specific HLA protein (DQ2 and DQ8) composition, deaminated gliadin (by TG2) is recognized by CD4+ T cells and can trigger an immune response which leads upon continued gliadin uptake to
  - **Increased intestinal permeability**
  - **Epithelial and mucosal damage** with negative changes of the gut architecture, including villous atrophy leading to malabsorption of nutrients
- 3** ■ Hypothesis for IMU-856's mode of action:
  - Restores villous architecture by triggering regenerative processes of the epithelial lining
  - Improves intestinal barrier function

Picture: self-drawn; [1] Caio et al. BMC Medicine (2019) 17:142  
HLA: human leukocyte antigen; TG2: tissue transglutaminase 2; CD: cluster of differentiation; IL: interleukin

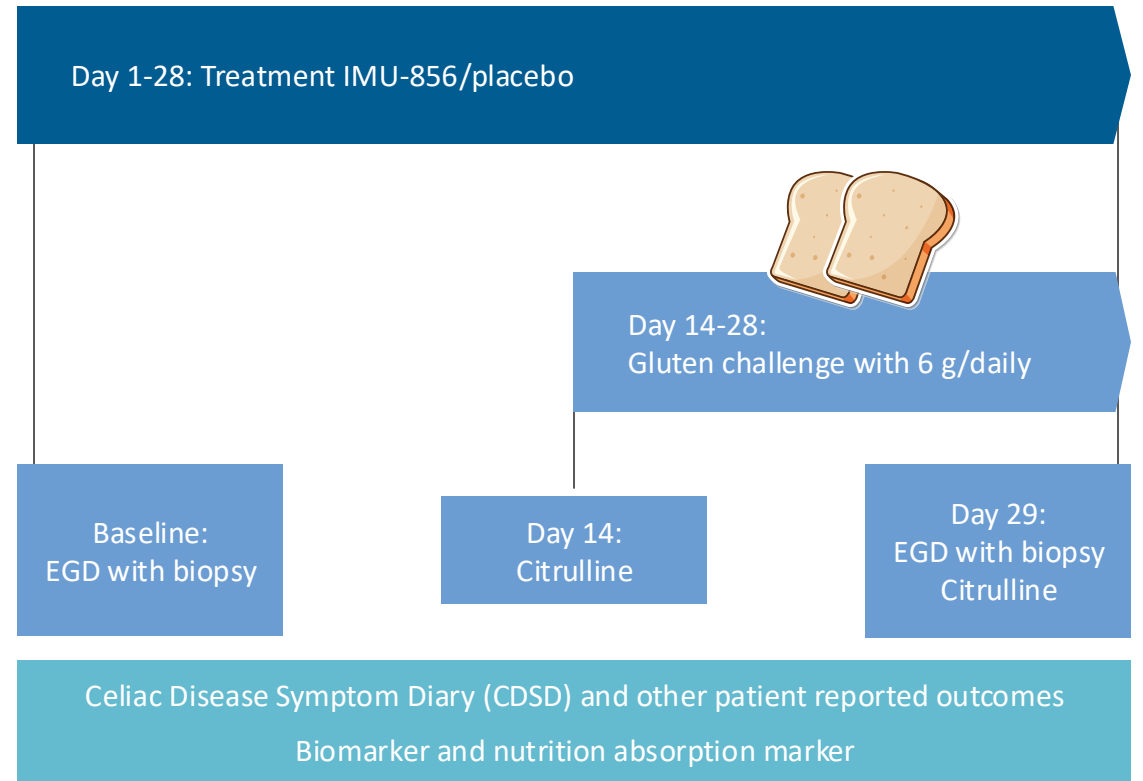
# IMU-856 Demonstrated Clinical Proof-of-Concept in a Phase 1b Clinical Trial in Celiac Disease



## Proof-of-Concept Study Designed as a Gluten Challenge Trial

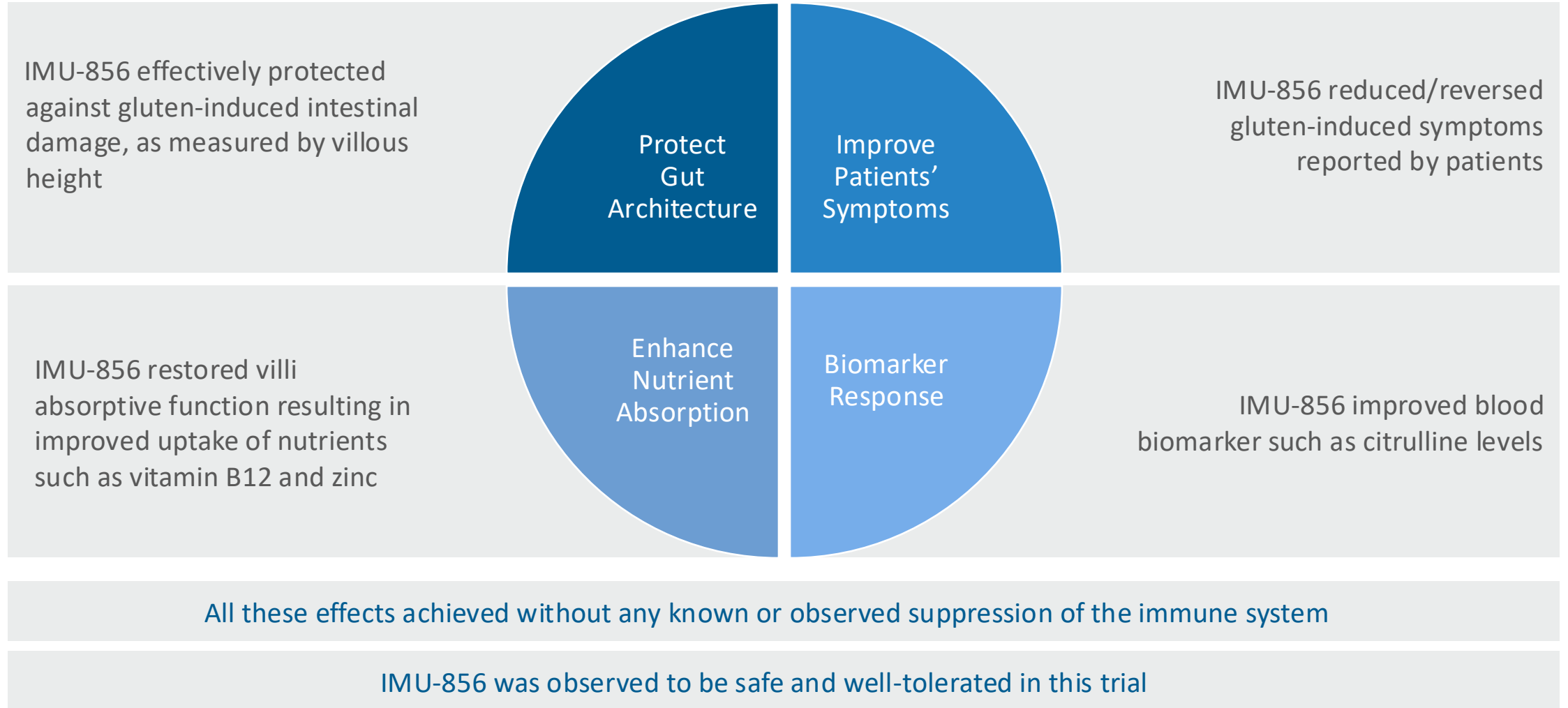
- **Celiac disease used as disease model to provide clinical proof-of-activity of IMU-856 in a 28-day trial setting**
- Designed to explore effects of gluten challenge in a celiac disease patient population
- Dosing: 80 and 160 mg QD of IMU-856, or placebo
- 43 patients enrolled (IMU-856: N=29)
- Assessed safety, tolerability, pharmacokinetics, and pharmacodynamics of IMU-856
- Proof-of-concept: measured histological changes, blood biomarkers of epithelial mass, nutrient uptake and disease-related symptoms

### Flow Chart of Phase 1b Clinical Trial in Celiac Disease



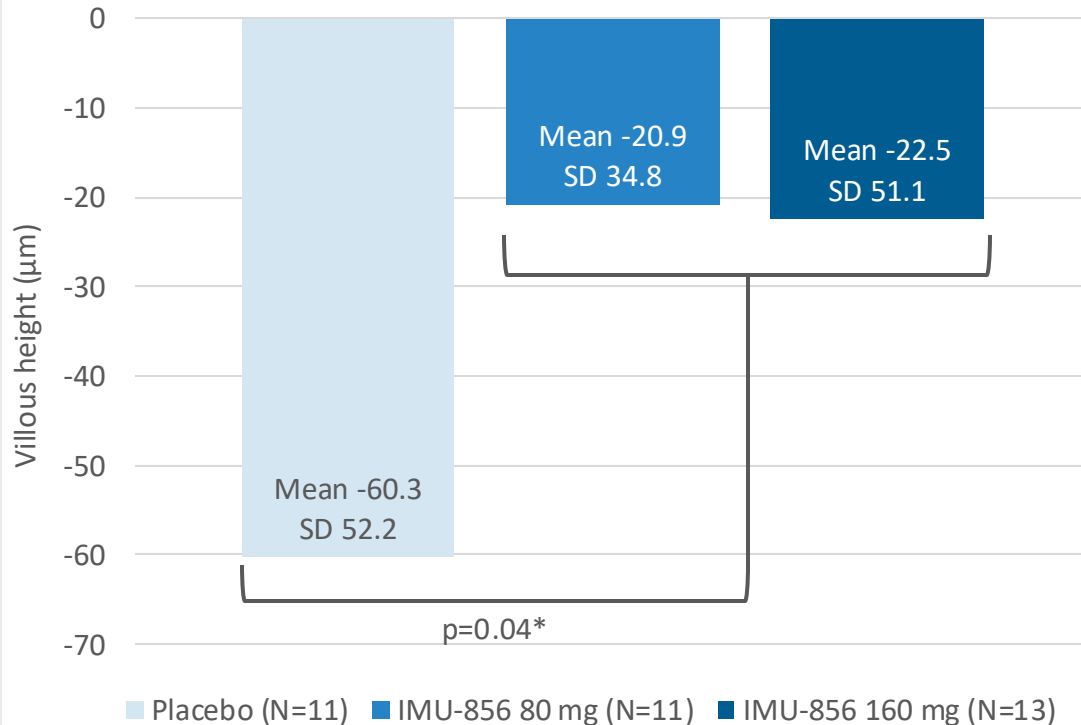
QD: quaque die = once-daily; EGD: esophagogastroduodenoscopy

# IMU-856 Showed Positive Effects in Four Main Dimensions of Clinical Outcome in Celiac Disease Patients



# IMU-856 Protected Against Gluten-Induced Decrease in Villous Height as Compared to Placebo

Absolute change in villous height ( $\mu\text{m}$ ) between Baseline and Day 29



Day 1-28: Treatment IMU-856/placebo

Day 14-28:  
Gluten challenge with 6 g/daily

Baseline:  
EGD with biopsy

Visit 6 / Day 29:  
EGD with biopsy

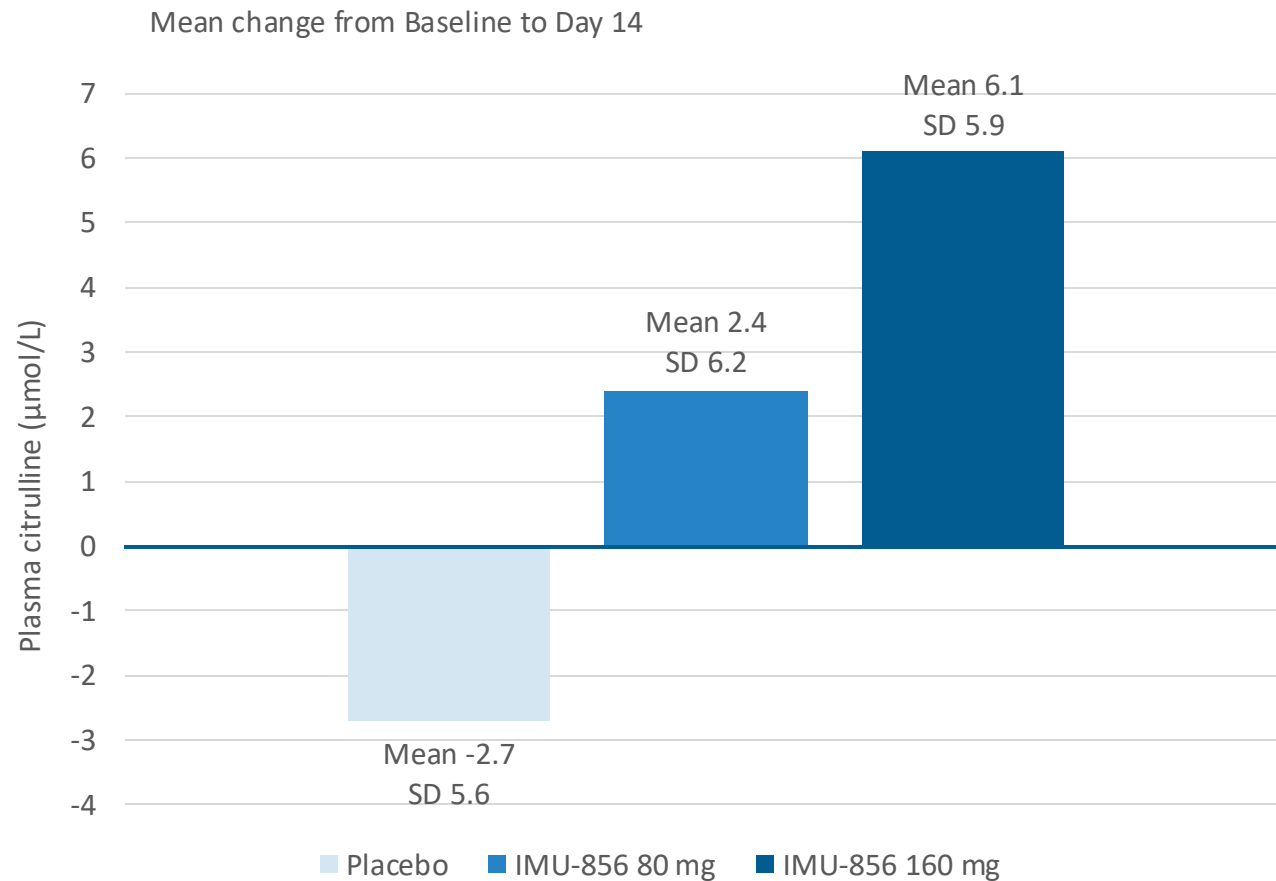
- Substantial protection for IMU-856 treatment groups as compared to placebo
- ➔ ■ Reached statistical significance\* for this objective readout which is known to be relevant to influence future medical complications of celiac disease
- Assessed by central pathology laboratory and blinded pathology reader

\* Wilcoxon Two-Sample Test comparison between pooled IMU-856 groups and placebo, performed as post-hoc exploratory statistical analysis

Disease Analysis Set: N=35/43 included in histology analysis set. 8 patients not included in this analysis due to early termination. Gluten Challenge for 15 days with 6g daily. Central pathology laboratory: Jilab Inc. Tampere, Finland  
EGD: esophagogastroduodenoscopy; SD: standard deviation

# IMU-856 Improved Citrulline Levels Despite Gluten Challenge

## Biomarker Reflecting the Health Status and Function of Enterocytes



Plasma citrulline levels are known to be related to intestinal epithelial mass and function<sup>[1]</sup>

- Citrulline levels increase with improvement of enteropathy<sup>[2]</sup>
- IMU-856 increased citrulline levels dose proportionally (despite gluten challenge), whereas being reduced in placebo patients

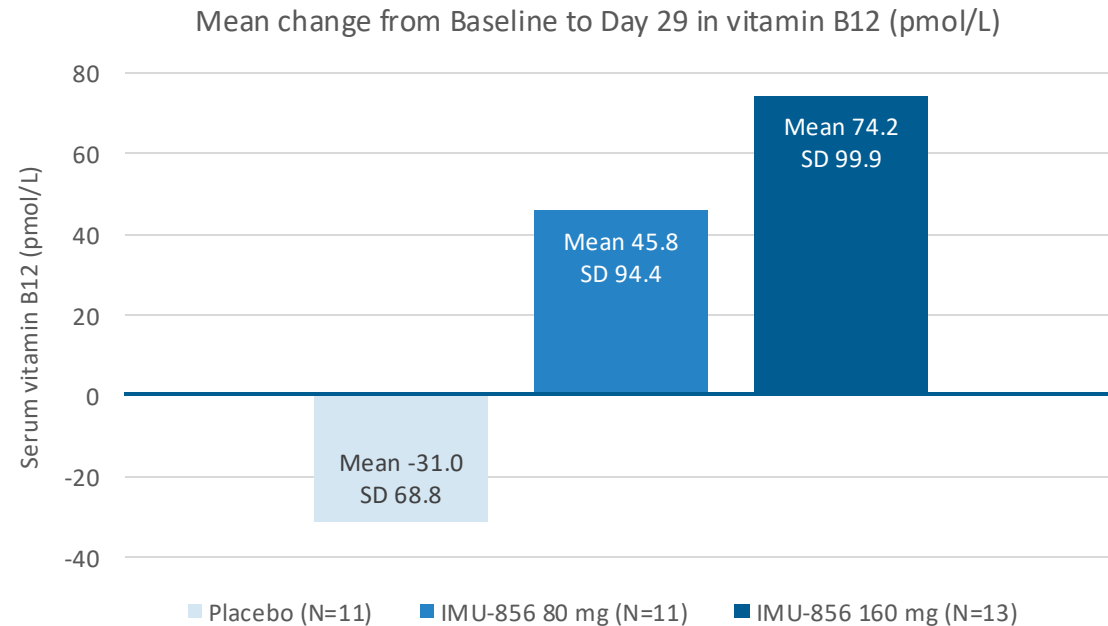
[1] Singh et al., J. Clin. Med. 2019, 8, 885; doi:10.3390/jcm8060885 [2] Fragkos et al., United Eur. Gastroenterol. J. 2018, 6, 181–191 &/ Number of Patients: Placebo: N=13 for Mean Change Baseline to Day 14, N=11 for Mean Change Baseline to Day 29; IMU-856 80 mg: N=14 for Mean Change Baseline to Day 14, N=11 for Mean Change Baseline to Day 29; IMU-856 160 mg: N=13 for Mean Change Baseline to Day 14, N=13 for Mean Change Baseline to Day 29; SD: standard deviation



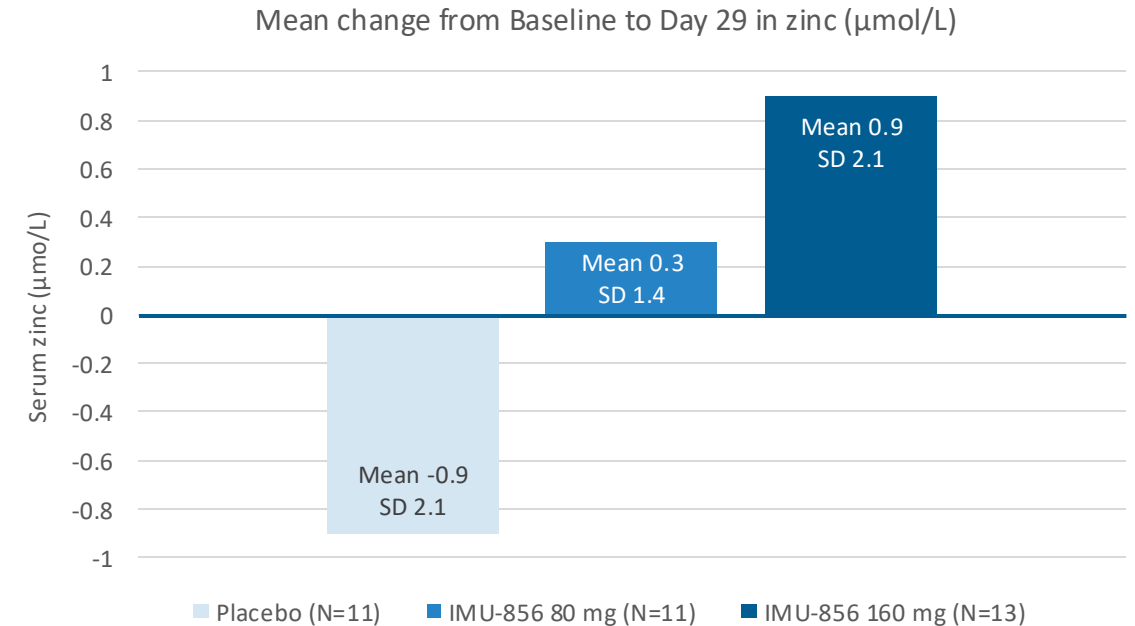
# IMU-856 Improved Uptake of Actively Transported Essential Nutrients Vitamin B12 and Zinc



## Vitamin B12



## Zinc



SD: standard deviation

# IMU-856 Could Become a Game Changer for the Treatment of Gastrointestinal Disorders



- IMU-856 is poised to be a **potential paradigm shift** in how to treat gastrointestinal diseases.
- Dozens of endpoints were investigated in this proof-of-concept trial and all demonstrated that **IMU-856 has a beneficial effect** in the treated celiac disease patients.
- IMU-856 was shown to be **safe and well-tolerated** in this trial.
- Immunic is **preparing clinical phase 2 testing** of IMU-856.
- IMU-856 has the potential for broad development where renewal of the gut wall is important; **multiple indications** are under evaluation.



Immunic Therapeutics

---

# Summary

# Summary: Vidofludimus Calcium Is a Derisked Near-Term Opportunity



**Innovative clinical pipeline:** First-in-class oral drugs with unique modes of actions for multiple sclerosis and gastrointestinal diseases in various phases of clinical development



**Relapsing MS opportunity is meaningful and de-risked:**

Oral category going to remain a large portion of overall MS market; peak sales potential for vidofludimus calcium of \$2-6 billion

Currently available oral therapies have limitations in benefit/risk profile; there is need for improvement

Vidofludimus calcium has the potential to address these shortcomings and transform the oral MS DMT market

ENSURE program: Two identical phase 3 clinical trials, designed to achieve potential regulatory approval of vidofludimus calcium in relapsing MS in a low-risk study design; completion of both ENSURE trials expected in 2026



**Progressive MS provides tremendous upside opportunity:**

High unmet medical need market: No approved therapies for non-active SPMS; one approved therapy for PPMS (infusion)

Peak sales potential for vidofludimus calcium of \$2-4 billion across respective indications

CALLIPER trial designed to demonstrate vidofludimus calcium's potential for neuroprotective activity in a non-relapse setting

Top-line data from CALLIPER trial expected in April 2025



**Cash runway into Q3/2025**

Cash position: USD 59.1 million (as of Sep 30, 2024), shares outstanding: 90,079,016 (as of Oct 31, 2024)

# Thank You!



**Jessica Breu**

Vice President Investor  
Relations & Communications

Phone: +1-332-255-9819

Email: [ir@imux.com](mailto:ir@imux.com)

Web: [www.imux.com](http://www.imux.com)

**Immunic, Inc.**  
1200 Avenue of the Americas  
New York City, NY 10036  
USA



**Immunic AG**  
Lochhamer Schlag 21  
82166 Gräfelfing (Munich)  
Germany

**Immunic Australia Pty. Ltd.**  
Melbourne  
Australia