

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, DC 20549

**FORM 8-K  
CURRENT REPORT  
Pursuant to Section 13 or 15(d) of  
The Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): June 4, 2025

**Biohaven Ltd.**

(Exact name of registrant as specified in its charter)

**British Virgin Islands**  
(State or other jurisdiction of incorporation)

**001-41477**  
(Commission File Number)

**Not applicable**  
(IRS Employer Identification No.)

**c/o Biohaven Pharmaceuticals, Inc.**  
**215 Church Street**  
**New Haven, Connecticut 06510**  
(Address of principal executive offices, including zip code)  
**(203) 404-0410**  
(Registrant's telephone number, including area code)  
**Not applicable**  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol	Name of each exchange on which registered
Common Shares, no par value	BHVN	New York Stock Exchange

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

**Item 7.01 Regulation FD Disclosure**

On June 4, 2025, Biohaven Ltd. will be making an investor presentation (the "Presentation"). A copy of the Presentation is attached as Exhibit 99.1 to this Current Report on Form 8-K, and is incorporated herein by reference.

The information in this Current Report on Form 8-K, including the information set forth in Exhibit 99.1, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

**Item 9.01 Financial Statements and Exhibits.**

**(d) Exhibits**

<b>Exhibit Number</b>	<b>Exhibit Description</b>
99.1	<u>Investor Presentation, dated June 2025.</u>
104	The cover page of this Current Report on Form 8-K formatted as Inline XBRL.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: June 4, 2025

**Biohaven Ltd.**

By: /s/ Matthew Buten  
Matthew Buten  
Chief Financial Officer

biohaven®

DAYS  
MATTER™

Corporate Presentation  
June 2025

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**JENNIFER**  
Living with SCA3

Participant in the  
Trotiluzole Clinical Study

## Forward-Looking Statement

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This presentation includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements about Biohaven Ltd. (the "Company") and our planned and ongoing trials for our troriluzole, taldefgrobep alfa, BHV-7000, BHV-2100, BHV-8000, BHV-1300, BHV-1400, BHV-1510, and BHV-1600 development programs, the timing of and the availability of data from our clinical trials, the timing and our decisions to proceed with our planned regulatory filings, the timing of and our ability to obtain regulatory approvals for our product candidates, the clinical potential utility of our product candidates, alone and as compared to other existing potential treatment options, and the potential advancement of our early phase programs including BHV-1310, BHV-1530, and BHV-1500. The use of certain words, including "continue", "plan", "will", "believe", "may", "expect", "anticipate" and similar expressions, is intended to identify forward-looking statements. Investors are cautioned that any forward-looking statements, including statements regarding the future development, timing and potential marketing approval and commercialization of our development candidates, including the potential FDA approval and commercialization of troriluzole for SCA, are not guarantees of future performance or results and involve substantial risks and uncertainties. Actual results, developments and events may differ materially from those in the forward-looking statements as a result of various factors including: the expected timing, commencement and outcomes of Biohaven's planned and ongoing clinical trials; the timing of planned interactions and filings with the Food and Drug Administration, including those regarding the potential FDA approval of troriluzole for SCA; the timing and outcome of expected regulatory filings; complying with applicable U.S. regulatory requirements; the potential commercialization of Biohaven's product candidates; the potential for Biohaven's product candidates to be first-in-class, best-in-class, best-in-clinic or best-in-category therapies; and the effectiveness and safety of Biohaven's product candidates, including open label clinical data in ongoing studies. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation. Additional important factors to be considered in connection with forward-looking statements are described in the Company's filings with the Securities and Exchange Commission, including within the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations". This presentation also contains market data and other information based on industry publications, reports by market research firms or published independent sources. Some market data and information are also based on the Company's good faith estimates, which are derived from management's knowledge of its industry and such independent sources referred to above.



biohaven®

**IMMUNOLOGY &  
INFLAMMATION**

Pioneering Degradar Platform  
With 3 Assets in the Clinic

Initiating Pivotal Trials

**Graves'** — 2H 2025

**IgAN** — 1H 2026

**Myasthenia gravis** — 1H 2026

**β1AR** — 2H 2026

**ONCOLOGY**

Proprietary ADC Platform and  
Collaboration with Merus Bispecifics

2 ADCs in the Clinic

**First-in-Clinic FGFR3 ADC**

**TROP2 Combo with Anti-PD-1**

**MUSCLE &  
METABOLISM**

Weight Loss

**Phase 2 Obesity** — 2H 2025

SMA Path Forward

**FDA Interaction** — 1H 2025

**NEUROSCIENCE**

Kv7 Program Expecting Pivotal  
Topline Results

**Depression** — 2H 2025

**Epilepsy** — 1H 2026

Neuroinflammation

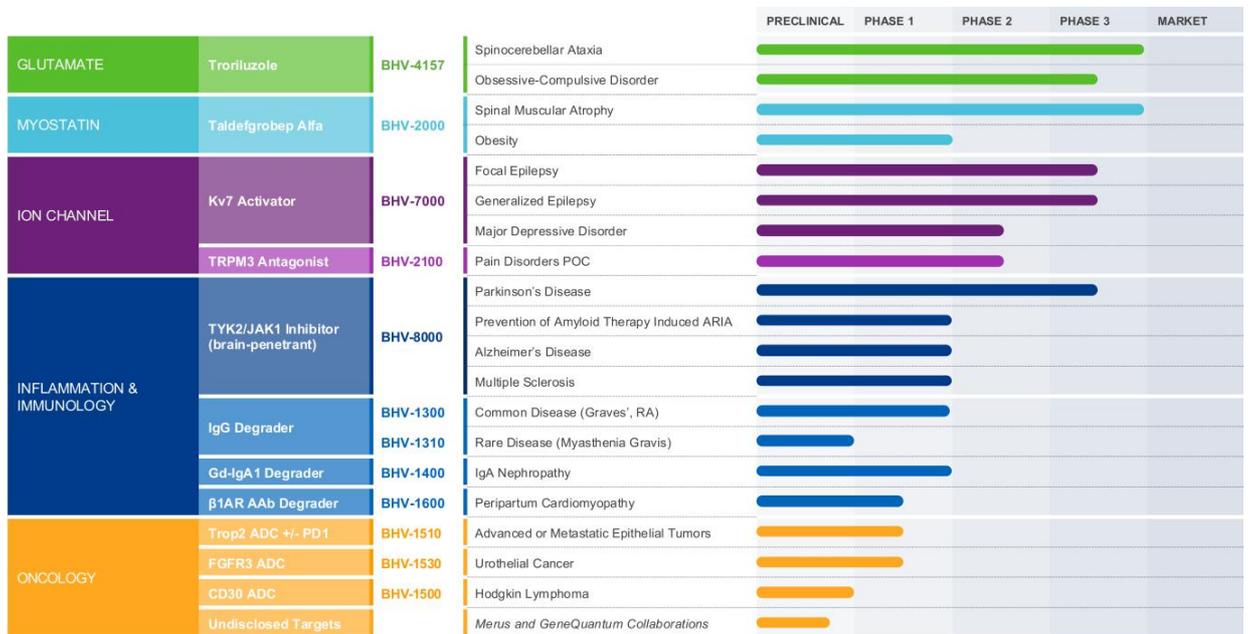
**Initiated Early Parkinson's** —

**1H 2025**

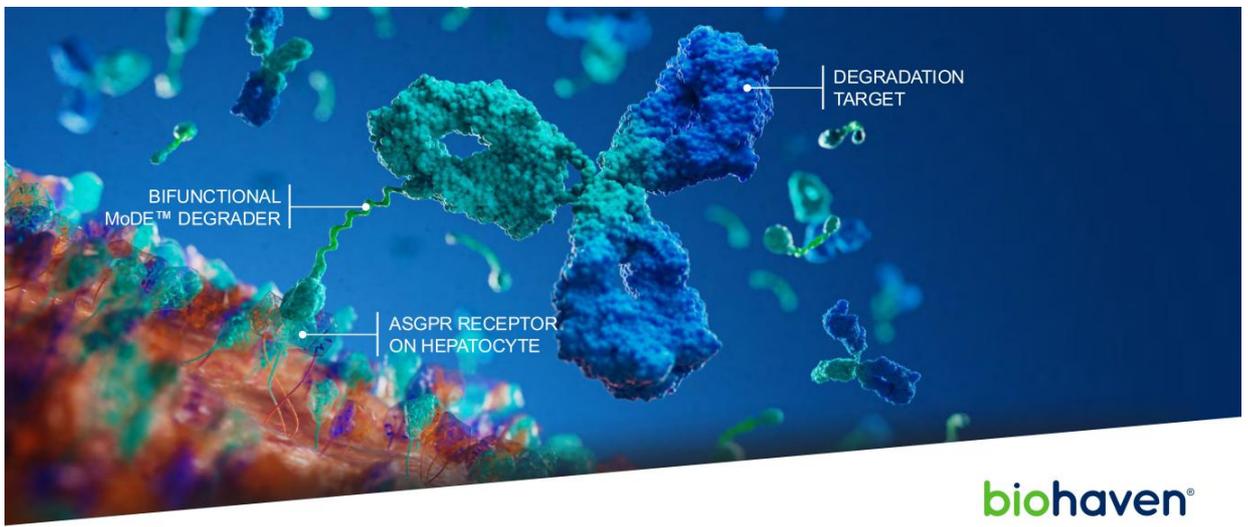
SCA NDA Under Priority Review

**PDUFA** — 2H 2025

**INNOVATING  
EXECUTING  
CREATING NEAR-TERM VALUE**



ARIA, Amyloid-related imaging abnormalities; AAb, Autoantibody.



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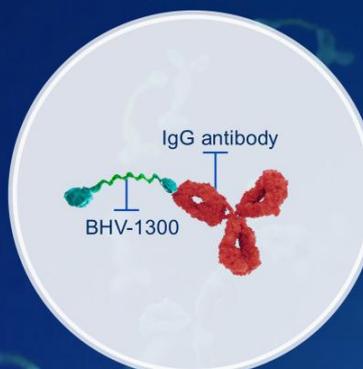
## MoDE™ and TRAP™ Degraders

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# biohaven®

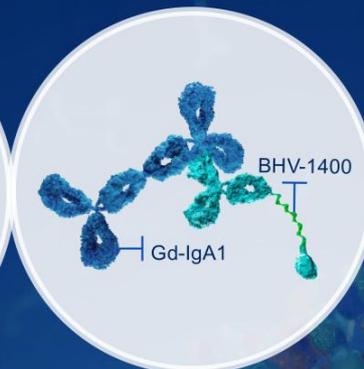
## OUR NOVEL DEGRADER PLATFORM

### MoDE™



Target a **class of proteins**  
implicated in pathogenesis  
of disease

### TRAP™

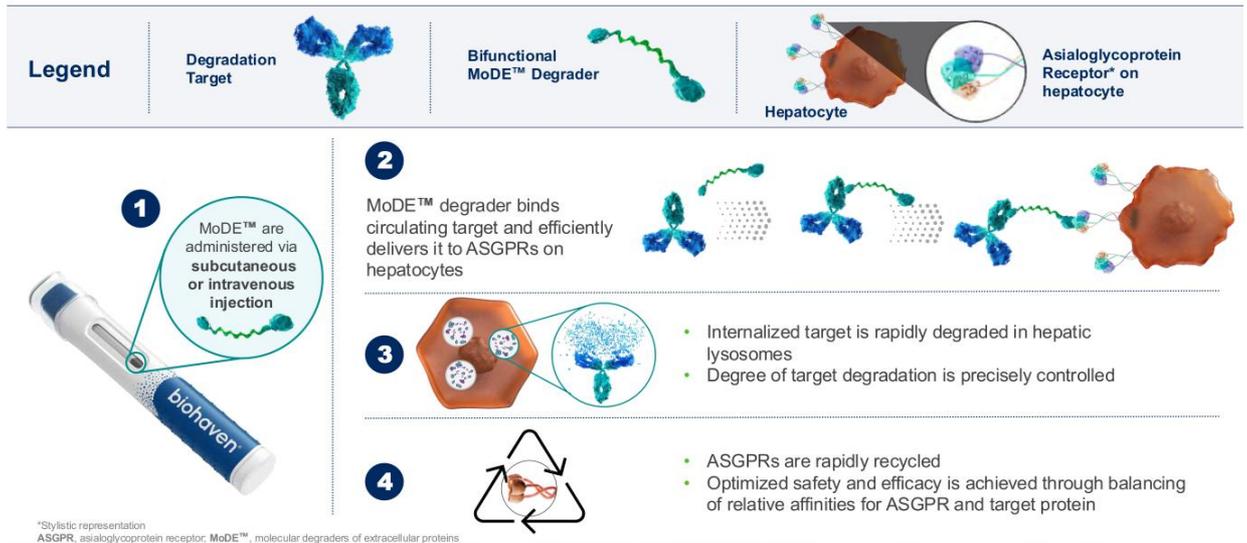


Remove **specific  
disease-causing proteins**  
and leave rest of immune  
system intact

**KEY  
POINT**

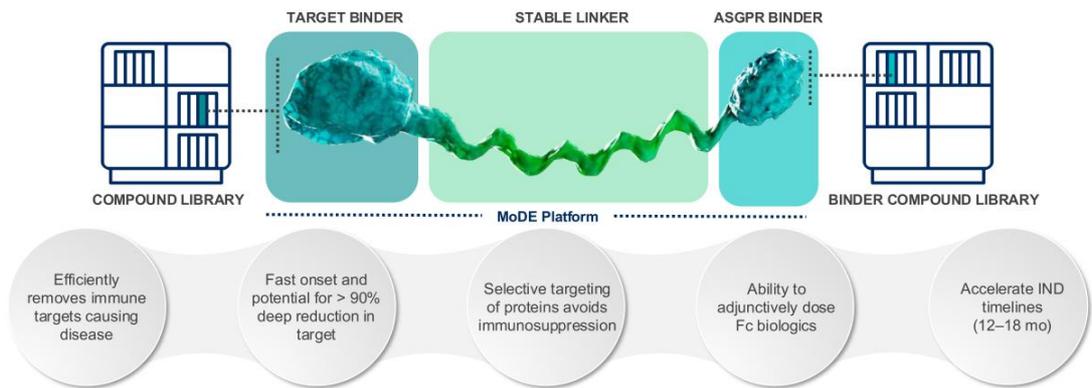
Revolutionary Yale-licensed technology to remove disease-causing proteins from the body

# A Novel Mechanism: Hepatic ASGPR Receptor Harnessed for Efficient and Safe Removal of Circulating Pathogenic Targets



# A Transformational MoDE™ Drug Platform: Molecular Degraders of Extracellular Proteins (MoDE)

Precisely balanced components selected for optimal efficacy, safety, and product profile



IND, Investigational New Drug Application.

**KEY  
POINT**

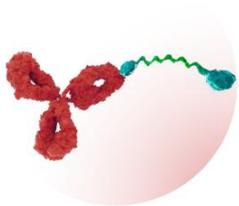
Biohaven's MoDE platform is rapidly generating drug candidates for multiple diseases

# Catalyzing Innovation for Patients and Early Demonstration of Removal of Disease-Causing Protein

DEGRADERS

## Follow the Science

PRECISION IMMUNOLOGY  
TARGET THE DISEASE, NOT THE PATIENT



## Understand the Need

KEEP THE PATIENT AT THE CENTER



## Establish Early Target Efficacy

PHASE 1 PD ENDPOINT



## Create Value

NEAR- AND LONG-TERM



INNOVATING

EXECUTING

CREATING VALUE

# Biohaven's Novel Degraders Validated in the Clinic: 166 Individuals Dosed With MoDE™ and TRAP™ Degraders

DEGRADERS

**BHV-1300**  
GRAVES' DISEASE

**BHV-1400**  
IgA NEPHROPATHY

**BHV-1600**  
PERIPARTUM CARDIOMYOPATHY

**PHASE 1 DATA DEMONSTRATES BIOHAVEN'S MoDE AND TRAP DEGRADERS:**

- ✓ Safe
- ✓ Well-tolerated
- ✓ Highly selective
- ✓ Deep and rapid lowering of targeted IgG and Gd-IgA1

In ongoing clinical trials

**DEGRADER**  
PLATFORM TECHNOLOGY

**FAST AND DEEP**

Removes disease-causing proteins within hours

**EASY-TO-USE**

- Easy-to-use autoinjector for self-administration
- Allows for concomitant use of biologics

PATIENT CENTRIC



LIFE ALTERING

**SELECTIVE**

Designed to target specific pathogenic species for maximal efficacy and minimal side effects

**TUNABLE**

- Level of degradation carefully modulated by dose level and frequency
- Employs body's natural mechanism for removal of senescent proteins

**biohaven**<sup>®</sup>

# 1H 2025

✓ BHV-1400  
Phase 1

✓ BHV-1300  
Phase 1

✓ BHV-1600  
Phase 1

2025 MoDE™ and TRAP™ platform validation catalyzes 2026 pivotal development in key therapeutic indications

# 2H 2025–2026

BHV-1400  
IgA Nephropathy Study



BHV-1310  
Myasthenia Gravis Study



BHV-1300  
Graves' Disease 2025 Study  
2026 Topline Data



BHV-1600  
Cardiomyopathy Study



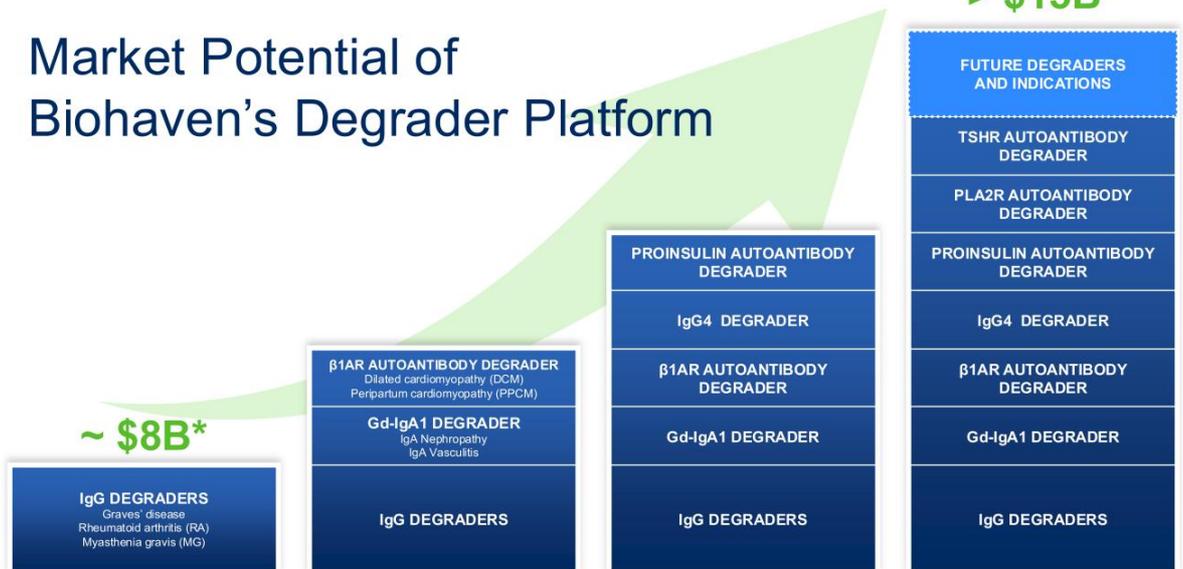
New MoDE and TRAP Degraders  
Enter Phase 1

IgG4 degrader, PLA2R autoantibody degrader,  
TSHR autoantibody degrader



# Market Potential of Biohaven's Degradation Platform

> \$15B\*



\* Biohaven Internal Analysis: Peak US Gross Sales



Gd-IgA1 TRAP™ Degradation

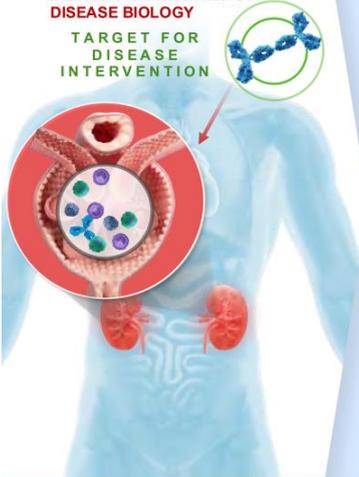
biohaven®

# BHV-1400 Selectively Removes Gd-IgA1, the Pathogenic Antibody in IgAN While Sparing Healthy Immunoglobulins

DEGRADERS

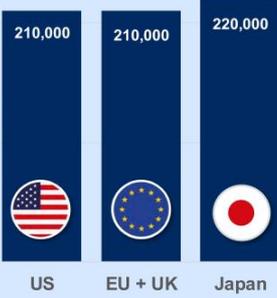
## Follow the Science

PRECISION TARGETING OF DISEASE BIOLOGY  
 TARGET FOR DISEASE INTERVENTION



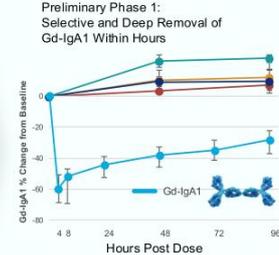
## Understand the Need

UNMET NEED & LARGE COMMERCIAL OPPORTUNITY



## Demonstrate Early Efficacy

PHASE 1 PD ENDPOINT



Phase 1 Pharmacodynamic endpoint predicts **success**, enables **speed**; sparing of healthy immune components predicts improved **safety**

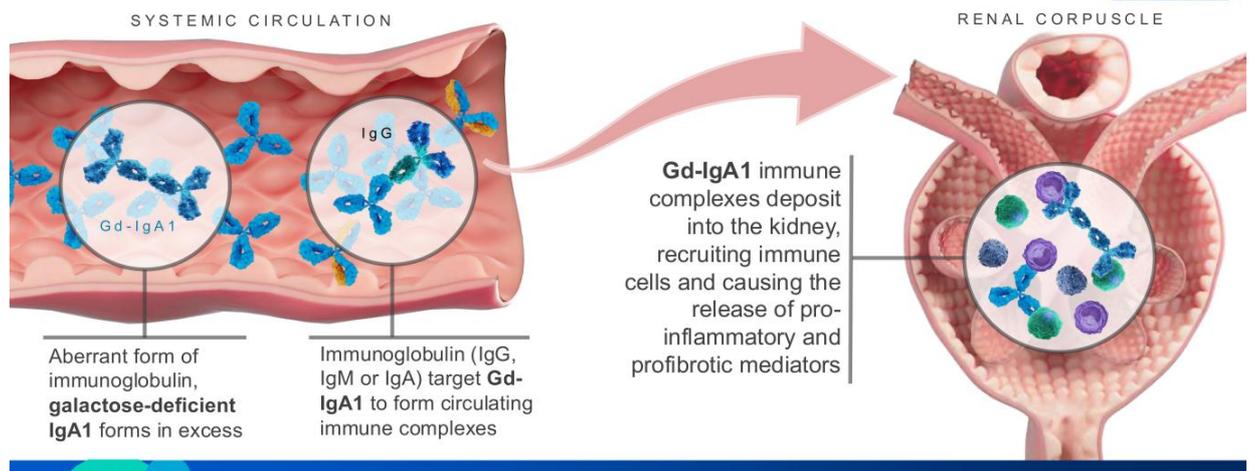
## Create Value

PIVOTAL TRIAL TO INITIATE 2026



# IgA Nephropathy Is Caused by Excess Production of Galactose-Deficient IgA1 (Gd-IgA1)

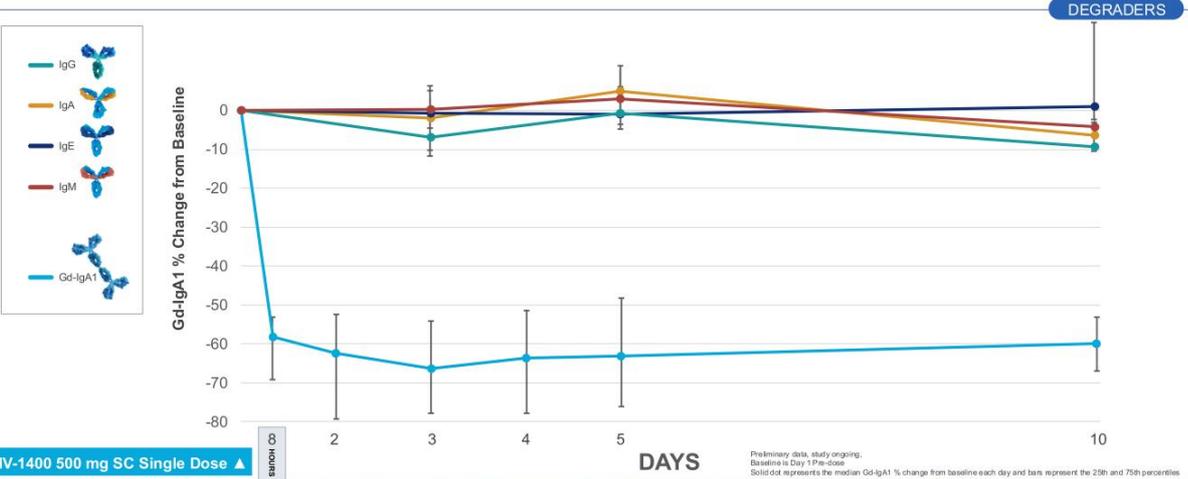
DEGRADERS



**KEY POINT** No therapy selectively targets the pathogenic nidus of disease, Gd-IgA1... **UNTIL NOW**

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# BHV-1400: Single Subcutaneous Dose Delivers *Rapid, Selective, Deep and Sustained* Removal of Gd-IgA1

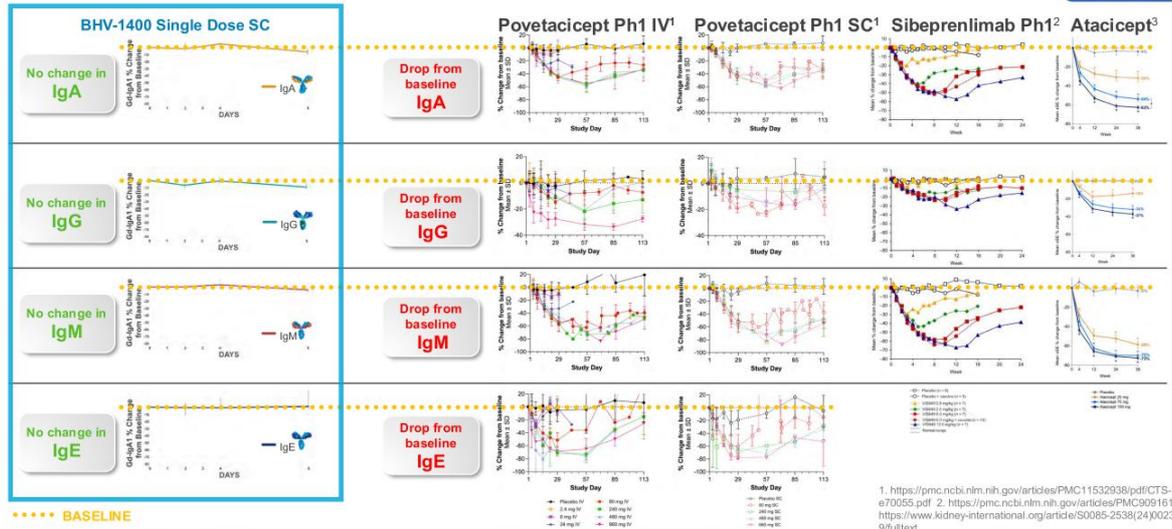


**BREAKING NEWS** A single SC dose of BHV-1400 delivers rapid, selective, deep, and sustained reductions in Gd-IgA1 of up to 81% and without suppression of healthy immunoglobulins

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# BHV-1400 TRAP™ Degradar Targets Gd-IgA1 with Precision Without Reducing Healthy Immunoglobulins

DEGRADERS



## High Selectivity Predicts Improved Safety

DEGRADERS

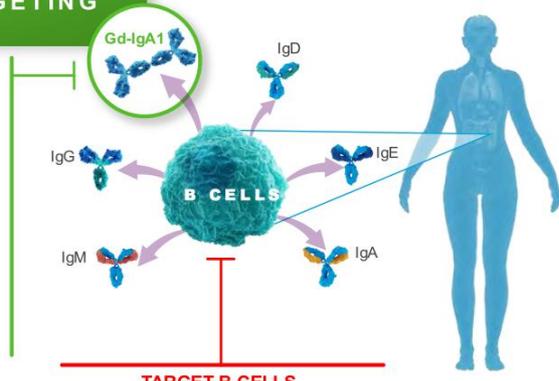
	<b>BHV-1400</b>	<b>Tarpeyo®</b> (budesonide)	<b>Vanrafia®</b> (astrasentan)	<b>Filspari®</b> (sparsentan)	<b>Fabhalta®</b> (iptacopan)
Risk Evaluation and Mitigation Strategies (REMS)	Not anticipated	NO	NO	YES	YES
Black Box	Not anticipated	NO	YES embryo-fetal toxicity	YES hepatotoxicity and embryo-fetal toxicity	YES serious infections caused by encapsulated bacteria
Targets	Selectively targets disease causing protein	Targets glucocorticoid receptors	Targets endothelin receptor	Targets ETAR and AT1R	Targets complement Factor B

# BHV-1400: Selective Removal of Disease-Causing Gd-IgA1 without Immunosuppression Compared to Competitors

DEGRADERS

## PRECISION TARGETING

**biohaven**  
**TRAP™ Degradator**  
**BHV-1400**  
**SELECTIVELY**  
**DEGRADES**  
**ONLY Gd-IgA1**  
 Targeting the pathogenesis of disease without immunosuppression



**TARGET B CELLS**  
 with global immunoglobulin suppression

**BROAD IMMUNOSUPPRESSION**  
 TARPEYO®  
 calliditas

**INHIBITS COMPLEMENT SYSTEM**  
 with broad immunosuppression  
 FABHALTA® RO7434656 ULTOMIRIS®  
 NOVARTIS IONIS Roche ALEXION AstraZeneca

**TARGET ENDOTHELIN RECEPTOR**  
 FILSPARI® VANRAFIA®  
 TRAVERE CHINOOK NOVARTIS

Povetacept ALPINE VERTEX  
 Atacicept vera  
 Sibeprenlimab Otsuka  
 Zigakibart CHINOOK NOVARTIS  
 Felzartamab Biogen

# Harnessing Efficient IgAN Trial Design to Address a High Unmet Need BHV-1400 Phase 2/3 Study Design

DEGRADERS

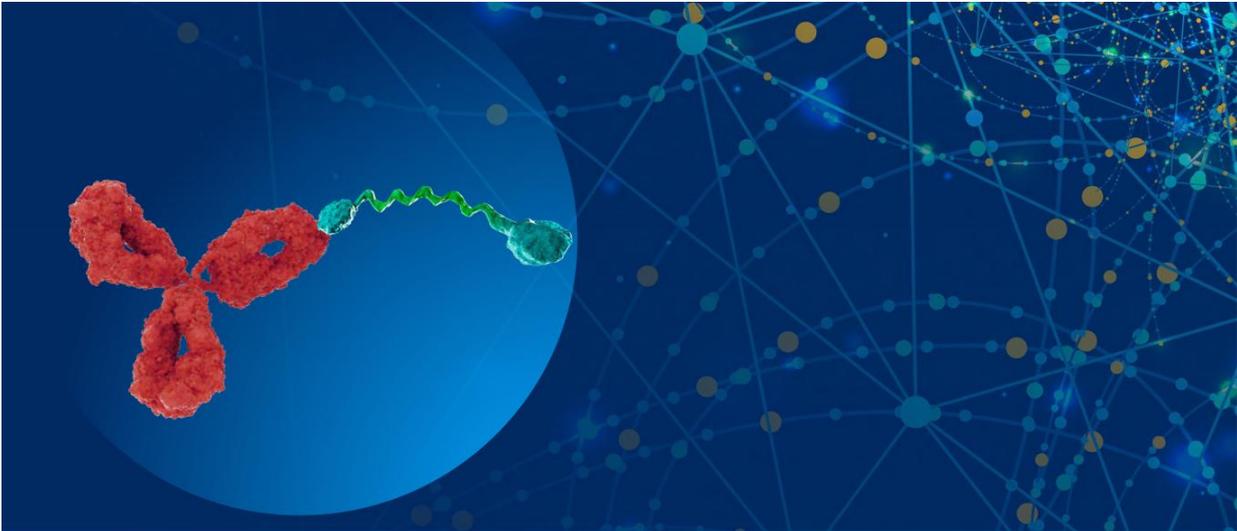


DESIGN	Randomized, double-blind, placebo-controlled trial
POPULATION	Male and female adults with biopsy proven IgA nephropathy
SAMPLE SIZE	500 participants randomized 1:1
TREATMENT	BHV-1400 500 mg SC Q2Wk vs Placebo Q2Wk
TREATMENT DURATION	24-month treatment period
KEY ENDPOINTS	Change in UPCR at 9 months (AA), Annualized total eGFR slope

KEY  
POINT

Accelerated approval pathway to bring a selective, disease-specific therapeutic to treat IgAN

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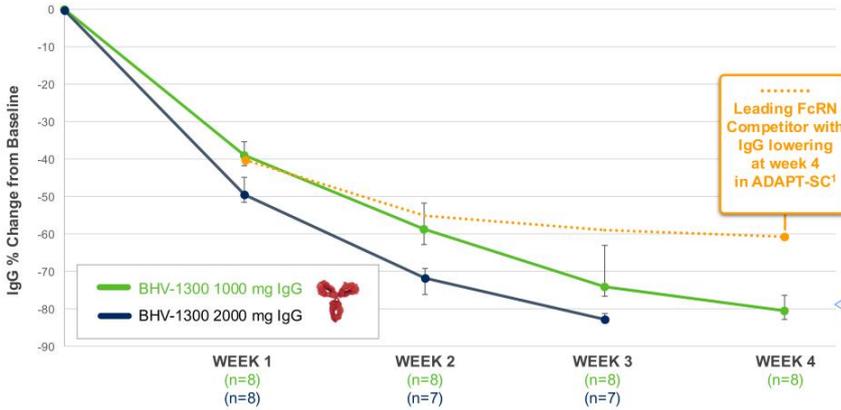


IgG MoDE™ Degradar

biohaven®

# BHV-1300: Differentiated Small Molecule Degradator Achieves Deep, Rapid and Tunable IgG Reductions Customized to the Needs of Specific Diseases

DEGRADERS



Subcutaneous BHV-1300 achieved median maximal reductions in total IgG of **83%** by day 18

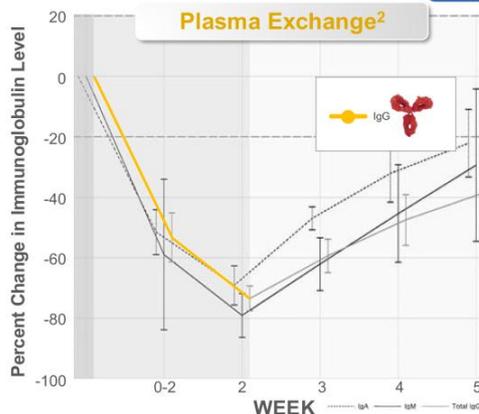
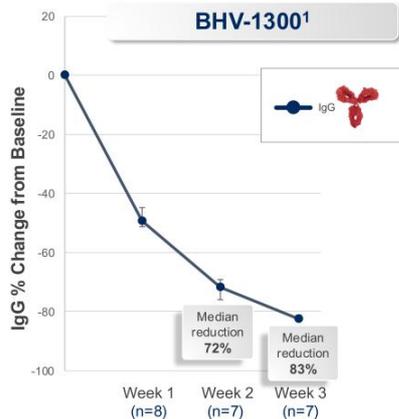
1. Adapted from Howard, et al. *Neurotherapeutics*, 2024  
Preliminary data, study ongoing, baseline is the Average of Day -1 and Day 1 pre-dose  
Solid dots represent the median of the maximal total IgG % change from baseline for the Week and bars represent the 25th and 75th percentiles

**BREAKING NEWS** BHV-1300 achieved rapid and deep IgG reductions of 83%, highlighting tunability of dosing paradigms depending on disease indication

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# BHV-1300: Offers a New Potential Paradigm for Management of Acute Disease, Lowering IgG as Rapidly and Deeply as Plasma Exchange

DEGRADERS



1. Baseline is the Average of Day -1 and Day 1 pre-dose. Solid dot represents the median of the maximal total IgG % change from baseline at each week and bars represent the 25th and 75th percentiles. 2. Guptill JT, et al. *Autoimmunity*. 2016;49(2016):472-9.

KEY  
POINT

Two doses of BHV-1300 lower IgG as deeply and quickly as these invasive methods including plasma exchange

25 | June 2025
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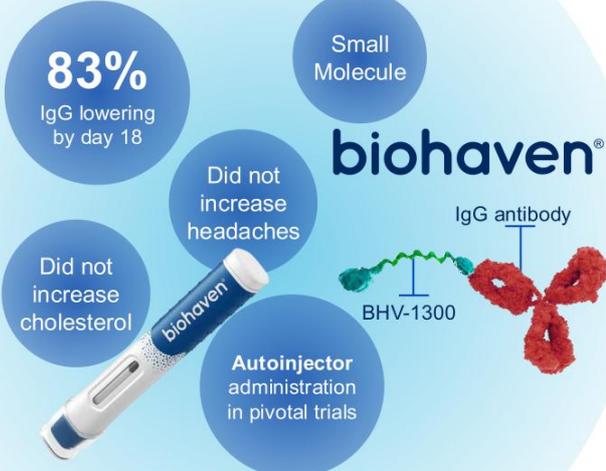
# BHV-1300 Could Represent Replacement Plasma Exchange (PLEX) in an Auto-Injector

DEGRADERS



# Not Just Another FcRn Inhibitor: Biohaven IgG MoDE™ Degradar Differentiates as a Novel MOA, First-in-Class Molecule

DEGRADERS



**83%**  
IgG lowering by day 18

Small Molecule

biohaven®

Did not increase headaches

Did not increase cholesterol

Autoinjector administration in pivotal trials

BHV-1300

IgG antibody

**IMAAVY™**  
J&J

- 74.6% IgG lowering after load, 68.8% in maintenance in Vivacity MG-3<sup>1,2</sup>
- **IV infusion**
- Increased cholesterol (24%), muscle spasms (12%), edema (12%)

**Vyvgart®**  
argenx

- Approximately 61% IgG lowering @ week 4 (VYVGART Hytrulo® in MG trial)<sup>3</sup> (Average 75% in MAD)<sup>4</sup>
- Prefilled Syringe
- Cyclical dosing can lead to symptom rebound

**Rystiggo®**  
ucb

- Approximately 76% IgG lowering in the MycarinG study<sup>5</sup>
- Healthcare administered SC infusion
- **44% headaches**
- Cyclical dosing can lead to symptom rebound

1. Antozzi et al, *Lancet Neurology*, 2025, 2, 84% mean maximum IgG lowering (twice the labeled frequency) in Phase 1; Ling LE, et al, *Clin Pharmacol Ther*, 2019, 3, Howard JF, Jr., et al, ADAPT (SC) Data – 2024 (Max reduction range 58.1%-63.5%); 4. Ulrichs P, et al, *J. Clin. Invest*, 2018 5; Bhl et al., *Lancet Neurology*, 2023 – (median maximum IgG reduction 73% with 7mg/kg and 79% with 10mg/kg dose – mean reductions were lower); Rystiggo MAD data not available

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Biohaven Investor Presentation

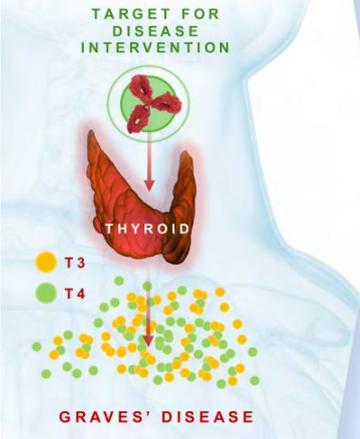
**biohaven**

# Graves' Disease: Precision Target Selection Enables Speed and Facilitates Confidence of Success

DEGRADERS

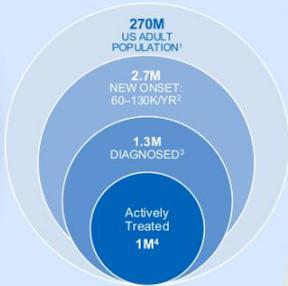
## Follow the Science

PRECISION TARGETING OF DISEASE BIOLOGY



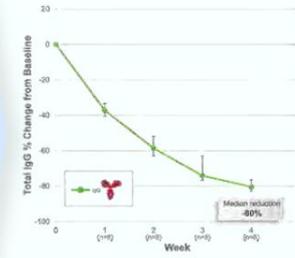
## Understand the Need

UNMET NEED & LARGE COMMERCIAL OPPORTUNITY



## Demonstrate Early Target Efficacy

PHASE 1 PD ENDPOINT



Phase 1 Pharmacodynamic endpoint **predicts success** and **enables speed** in Pivotal Studies

## Create Value

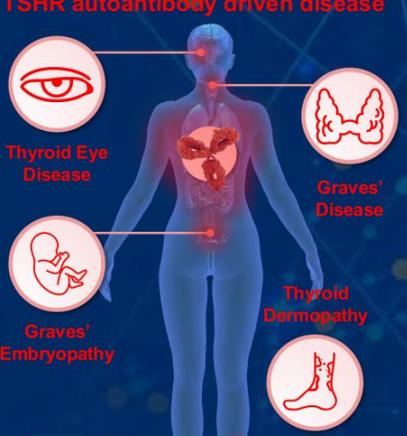
PIVOTAL TRIAL TO INITIATE 2H 2025



# Biohaven IgG Degradar Targets the Root Cause of a Broad Autoimmune Disease to Treat and Prevent Multi-Organ Complications

DEGRADERS

**TSHR autoantibody driven disease**



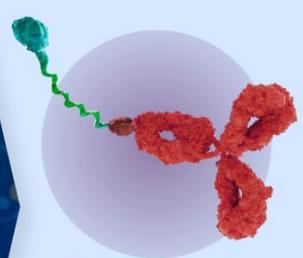
Thyroid Eye Disease

Graves' Disease

Graves' Embryopathy

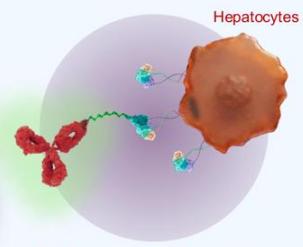
Thyroid Dermopathy

**+ Biohaven IgG degrader**



**Redirects Disease Causing Target to Liver for Removal**

**Eliminate disease driver**



Hepatocytes

**Biohaven IgG degrader removes IgG to eliminate the disease driver of Graves' disease, Thyroid Eye Disease, and Thyroid Dermopathy**

**KEY POINT**

Biohaven IgG degrader designed to removes Graves' causing autoantibodies

28 | June 2025

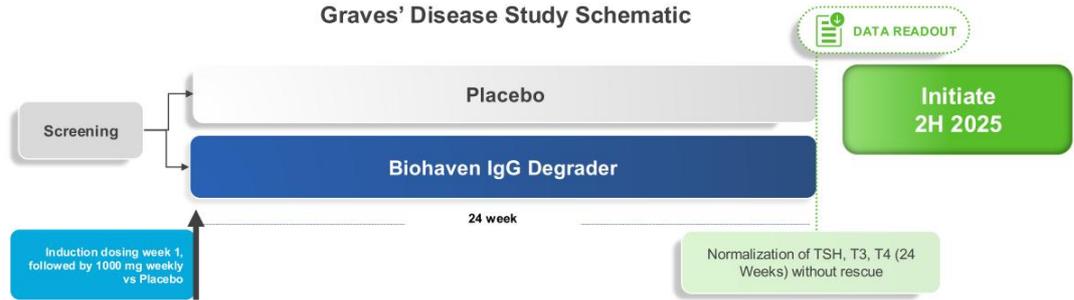
Biohaven Investor Presentation

biohaven

## 2H 2025 Graves' Disease Pivotal Trial

DEGRADERS

### Graves' Disease Study Schematic



<b>DESIGN</b>	Randomized, double-blind, placebo-controlled trial
<b>POPULATION</b>	Male and female adults with Graves' disease
<b>TREATMENT DURATION</b>	24-week treatment period
<b>KEY ENDPOINTS</b>	Normalization of T3, T4 and TSH without rescue at week 24

**KEY POINT**

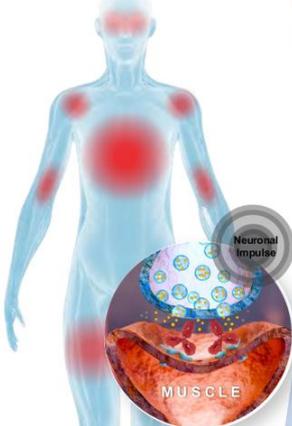
Biomarker driven study enables speed to near-term value inflection

# Myasthenia Gravis: Biohaven's IgG Degraders are Tunable Therapy for Acute and Chronic Phases of Disease

DEGRADERS

## Follow the Science

PRECISION TARGETING OF DISEASE BIOLOGY



## Understand the Need

UNMET NEED & LARGE COMMERCIAL OPPORTUNITY

~100K<sup>1</sup>  
US PATIENTS

\$3.2B  
2024 TOTAL

Soliris®  
Vyvgart®  
Ultomiris®  
Rystiggo®  
Zilbrysq®

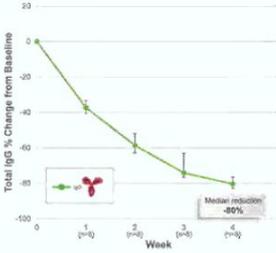
\$2.2B  
2023 TOTAL

Soliris®  
Vyvgart®  
Ultomiris®  
Rystiggo®

Multi-billion dollar nationally and internationally growing market opportunity<sup>2</sup>

## Demonstrate Early Target Efficacy

PHASE 1 PD ENDPOINT



Phase 1 Pharmacodynamic endpoint predicts success and enables speed in Pivotal Studies

## Create Value

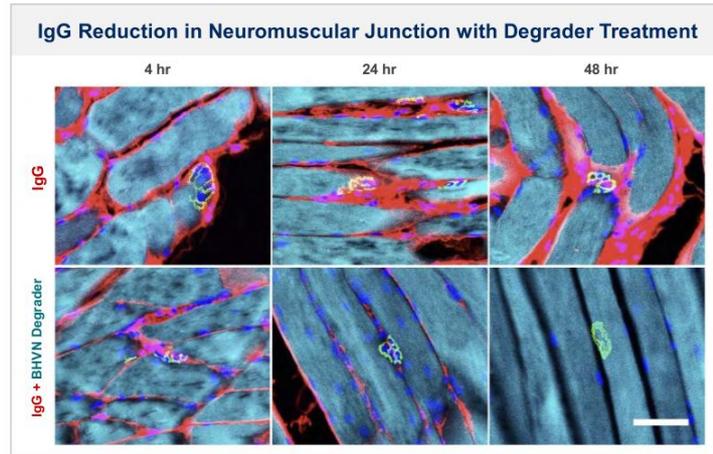
PIVOTAL TRIAL TO INITIATE 2026



1. Rodrigues E et al. doi: 10.1002/mus.28006. Epub 2023 Dec 1. PMID: 38040629. 2. Estimated revenue contribution for gMG based on Biohaven internal analysis.

# In Vivo Pre-Clinical Validation of the IgG Degradation Mechanism of Action

DEGRADERS



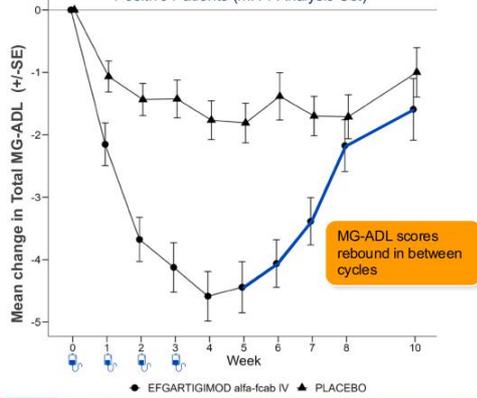
**KEY POINT**

Biohaven IgG degraders can rapidly clear IgG from the interstitial space and neuromuscular junction

# Cycles of Dosing with FcRns Lead to Cycles of Recovery Punctuated by Periods of Symptom Rebound

DEGRADERS

Mean Change in Total MG-ADL From Cycle 1 Baseline Over Time in AChR-Ab Positive Patients (mITT Analysis Set)



- Chronic diseases like MG require sustained therapy to prevent symptom fluctuations and worsening
- Drug holidays or cyclic dosing can lead to MG-ADL score rebound, disrupting patient quality of life<sup>1,2</sup>

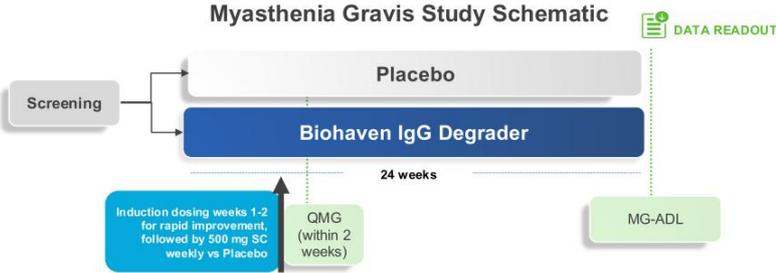
MG-ADL, Myasthenia Gravis Activities of Daily Living scale 1. Vyvgart Hytrulo® Prescribing Information – argenx 2.Rystiggo® Prescribing Information – UCB

**KEY  
POINT**

**PATIENT-CENTERED CARE: Continuous and sustained dosing** (e.g., BHVN degraders) can improve adherence and potentially reduce disease burden

# Biohaven IgG Degradator: Clinical Trial Design Highlights Potential Efficacy in Acute and Maintenance MG Therapy

DEGRADERS



<b>DESIGN</b>	Randomized, double-blind, placebo-controlled trial
<b>POPULATION</b>	Male and female adults with gMG
<b>TREATMENT DURATION</b>	24-week treatment period
<b>KEY ENDPOINTS</b>	QMG (within 2 weeks), MG-ADL (week 24)

QMG, Quantitative Myasthenia Gravis score; MG-ADL, Myasthenia Gravis Activities of Daily Living scale

KEY  
POINT

BHV-1300 candidate to treat acute MG exacerbation and maintenance therapy with a single drug

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## Current treatment for PPCM

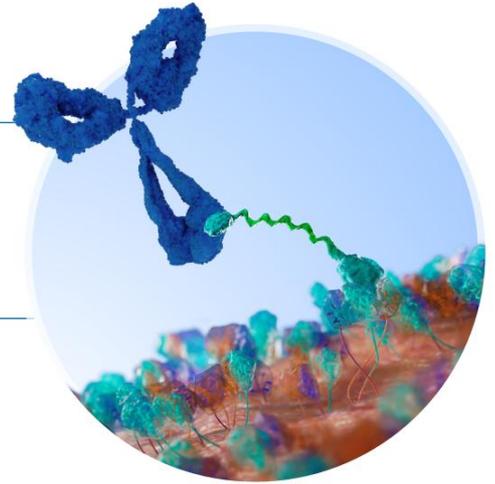
- Guideline-Directed Medical Therapy: No disease specific therapy

## Treatment goals in PPCM

- Intervene early
- Treat acute heart failure
- Prevent further myocardial injury and restore baseline normal cardiac function

## $\beta$ 1AR AAbs present in PPCM

- Increased titers correlate with more severe disease
- $\beta$ 1AR autoantibodies are a potential target to provide PPCM patients with their first disease specific therapy



# PPCM: BHV-1600 Targets $\beta$ 1AR Autoantibodies for First Potential Disease-Specific Therapy

DEGRADERS

## Follow the Science

PRECISION TARGETING OF DISEASE BIOLOGY

TARGET FOR DISEASE INTERVENTION



$\beta$ 1AR autoantibodies

Cardiac beta-adrenergic receptors ( $\beta$ 1AR)

Sustained  $\beta$ 1AR stimulation  $\blacktriangleright$  Increased Contractility  $\blacktriangleright$  Ventricular Strain  $\blacktriangleright$  Dilated Cardiomyopathy

**Peripartum Cardiomyopathy**

## Understand the Need

PPCM is rare disease with poor outcomes in new mothers and no currently FDA-approved treatment

Maternal mortality highest since 1965 and primary contributor is PPCM with mortality rates reported up to 20%

10% go on to require mechanical support (LVAD or heart transplant)

## Phase 1 PD Predicts Success in Phase 3

✓ **PHASE 1 SAD/MAD**  
Completed dosing,  $\beta$ 1AR PD biomarker results pending

## Create Value

**PHASE 1 SAD/MAD** completed dosing: IV and SC dosing up to 500mg IV

**2026 STUDY** in PPCM patients

PPCM Study Schematic



**KEY POINT** Pivotal trial plans to leverage accelerated approval pathway to bring a much-needed therapeutic to women with PPCM efficiently

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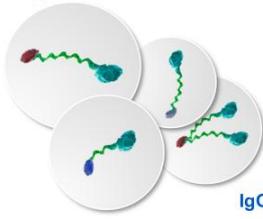
biohaven®

Next-Gen Degradables

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# Biohaven Discovery Provides Pipeline Sustainability and Optionality

DISCOVERY



## DEGRADER PORTFOLIO MoDEs™, TRAPs™, New Degradable Technology

	preDC	DC*
<b>IgG4:</b> BHV-1450		✓
<b>IgG-Driven Disease:</b> BHV-1320		✓
<b>Anti-PLA2r:</b> Nephropathy		✓
<b>Anti-Proinsulin:</b> Type I Diabetes		✓
<b>Anti-TSHR:</b> Graves' Disease	✓	
<b>Multiple Early Targets</b>	✓	
<b>Technology Build</b>		

## SMALL MOLECULES AND BIOLOGIC THERAPEUTICS



	preDC	DC*	
		✓	<b>Kv7.2/3:</b> Central Backups
		✓	<b>Kv7:</b> Peripheral Smooth Muscle
		✓	<b>TRPM3:</b> Peripheral and CNS Penetrant
✓	✓		<b>Neuroscience:</b> Undisclosed Targets
✓	✓		<b>Troiriluzole:</b> Backups
✓			<b>Oncology:</b> Undisclosed ADC Targets
		✓	<b>Myostatin Inhibitor:</b> Backup

\*named or planned development candidate within current quarter



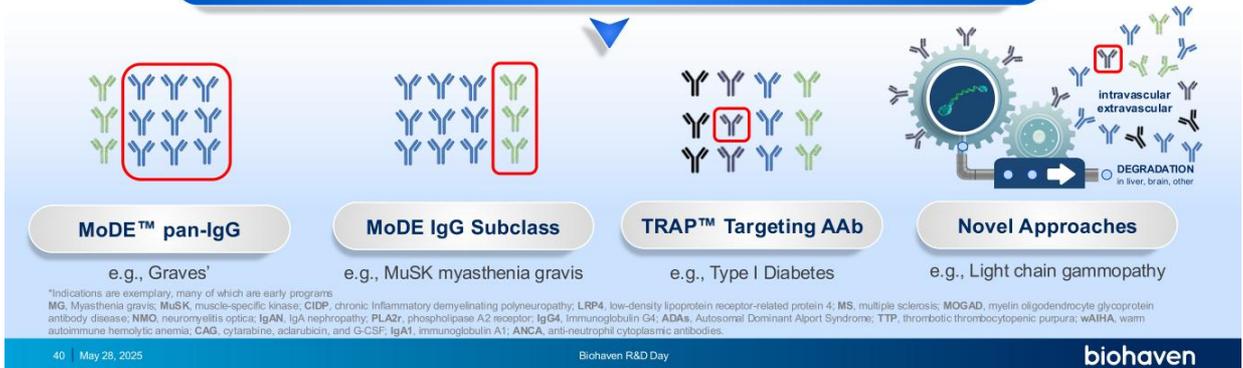
Discovery drug platforms have delivered 6 INDs and multiple drug candidates in 3 years

# Expanding the Degradation Platform Into Focused Research Areas

DISCOVERY

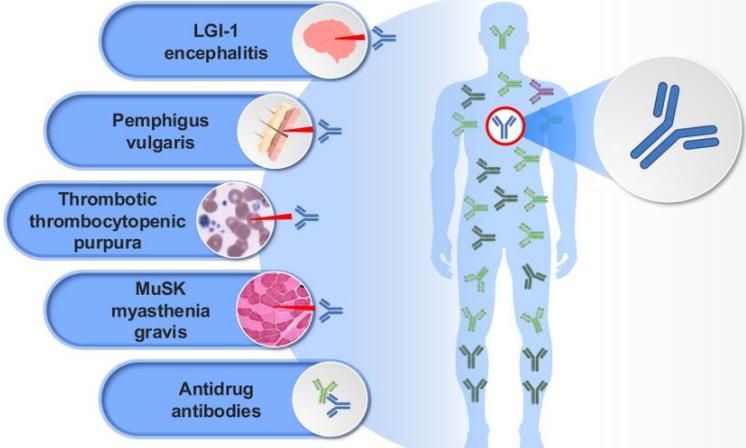
- **Neuro and Neuromuscular:** MG, MuSK, CIDP, LRP4, Guillain Barré, MS, MOGAD, NMO\*
- **Renal:** IgAN, PLA2r, IgG4, GBM, nephrin-1, cortico-interstitial fibrosis, ADAs\*
- **Hematology:** Gammopathies, TTP, wAIHA, CAG, IgA1 and ANCA-associated vasculitis\*

## Aligning Disease Indications with Appropriate Degradation Technology



# BHV-1450: Deep Removal of IgG4 for IgG4-Mediated Diseases

DISCOVERY



IgG4-related diseases result in target organ inflammation and fibrosis

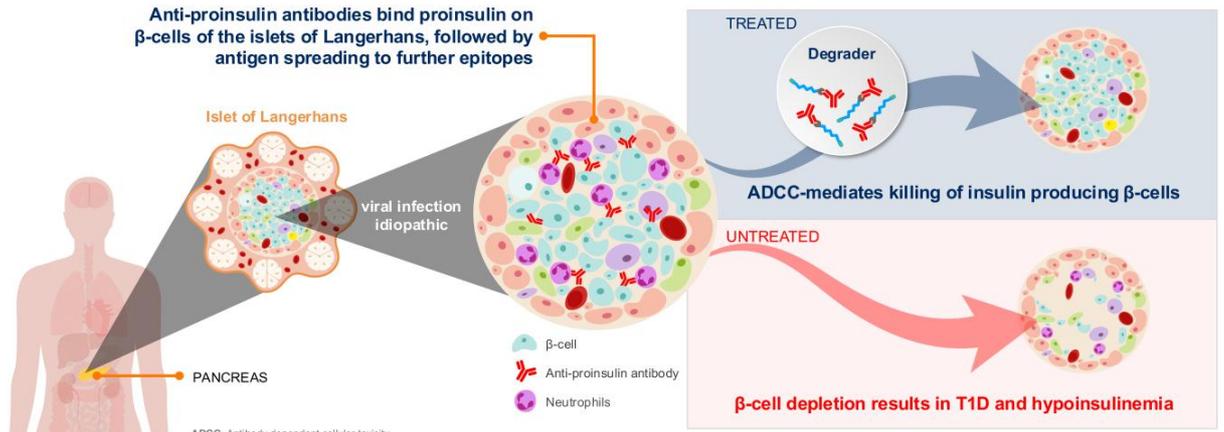
- Pancreatitis
- Sclerosing cholangitis
- Retroperitoneal fibrosis
- Tubulointerstitial nephritis
- Mikulicz's disease and sclerosing sialodacryoadenitis
- Riedel's thyroiditis
- Interstitial lung disease

Mori S et al., *Am J Pathol.* 2012 Feb;180(2):798-810. Koneczny I. *Autoimmun Rev.* 2020;19(10):102646. van Sonderen et al., *Nat Rev Neurol* 13, 290–301 (2017).

**KEY POINT**

BHV-1450 degrades the minor (4%) IgG4 subclass . IgG1, IgG2 & IgG3 remain unchanged

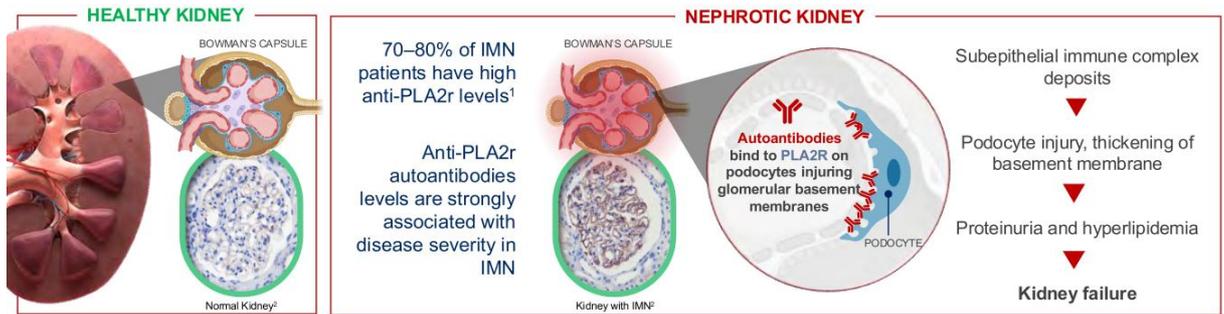
# Removal of Proinsulin Autoantibodies Halts Progression of Nascent Type 1 Diabetes (T1D)



**KEY POINTS**

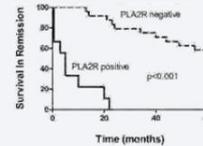
**THERAPEUTIC HYPOTHESIS** Lowering of antibodies early in course of disease may prevent loss of  $\beta$ -cells and stop cascading events which lead to Type 1 Diabetes

# Selective Targeting of Anti-Phospholipase A2 Receptor (PLA2r) Antibodies for Idiopathic Membranous Nephropathy (IMN)



## Currently no specific therapies to treat IMN<sup>2</sup>

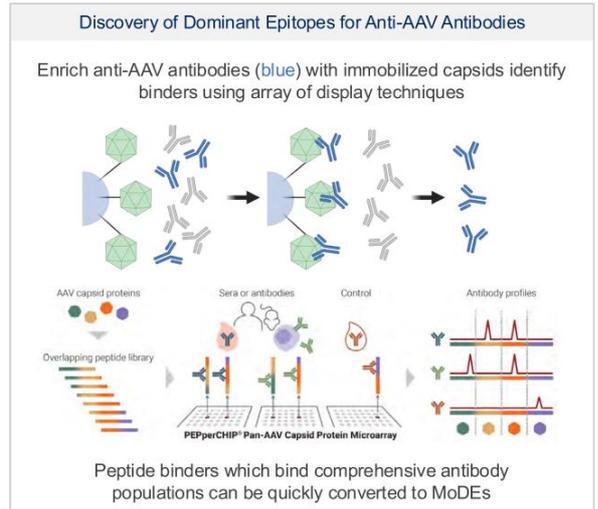
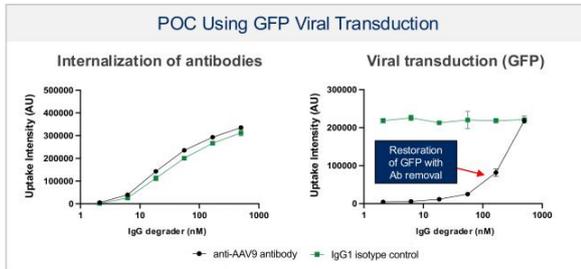
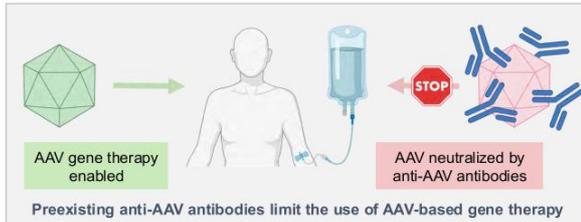
- Rituximab or cyclophosphamide + glucocorticoids are first-line therapies but have serious side effects
- Combination of plasmapheresis with SoC shows more favorable outcomes<sup>3,4</sup>

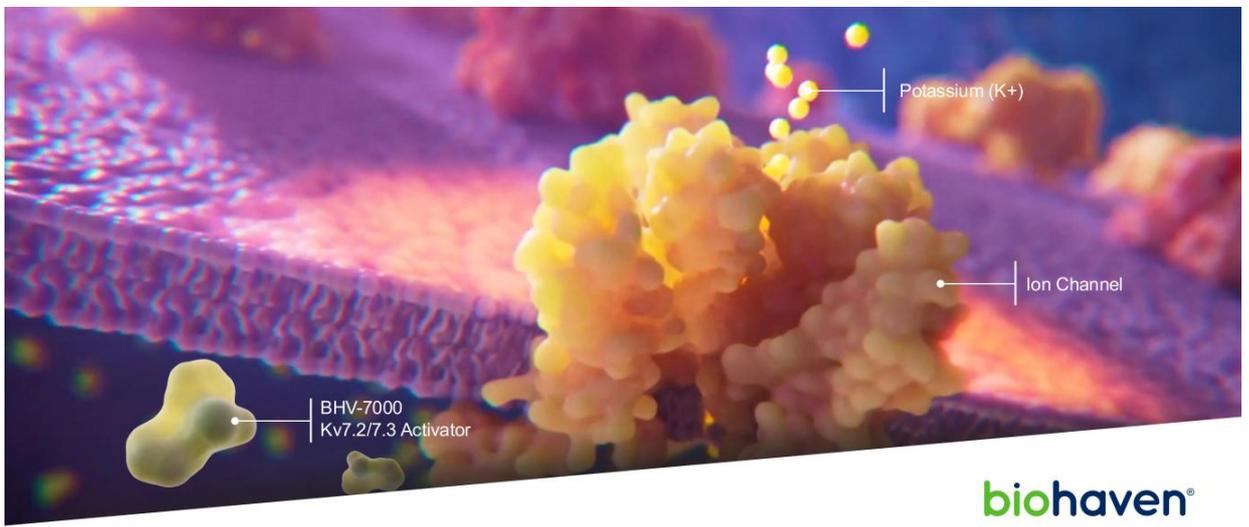


**Patients rendered anti-PLA2r negative by immunosuppression have greater disease remission**

1. Beck, L.H.; Bonegio, R.G.B.; Lambeau, G.; Beck, D.M.; Powell, D.W.; Cummins, T.D.; Klein, J.B.; Salant, D.J. M-Type Phospholipase A 2 Receptor as Target Antigen in Idiopathic Membranous Nephropathy. *N. Engl. J. Med.* 2009, *361*, 11–21. 2. Adapted from *Kidney International* (2012) 82, 797–804 3. Rovin BH, Adler SG, Barratt J, Bridoux F, Burdge KA, Chan TM, et al. KDIGO 2021 Clinical Practice Guideline for the Management of Glomerular Diseases. *Kidney Int* (2021) 100(4, Supplement):S1–276. doi: 10.1016/j.kint.2021.05.021. 4. Bennani HN, et al. *J. Pers. Med.* 2024, *14*(3), 249. 5. Lu H et al. *Medicine*(Baltimore) 2019 May; *98*(18): e15303.

# Removal of Neutralizing Antibodies to Capsids to Optimize Gene Therapy Uptake and Allow Repeat Administration





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## Ion Channel Platform

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biohaven®

BHV-7000:  
Kv7 Activator for Epilepsy and Depression

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## Kv7 Is a Transformational Target in Neurology and Neuropsychiatry

- Selective Kv7 activation avoids unwanted CNS side effects
- Clinically validated in epilepsy, depression and pain

## BHV-7000 Is Potential Best-in-Class Selective Kv7 Activator with Blockbuster Potential

- Rationally designed to eliminate GABA<sub>A</sub> receptor activation
- No dose-limiting CNS side effects observed in Phase 1
- CNS target engagement at predicted therapeutic concentrations confirmed in Phase 1 EEG study

## Late-stage Clinical Development

4 pivotal trials ongoing in epilepsy and MDD

GABA,  $\gamma$ -aminobutyric acid.

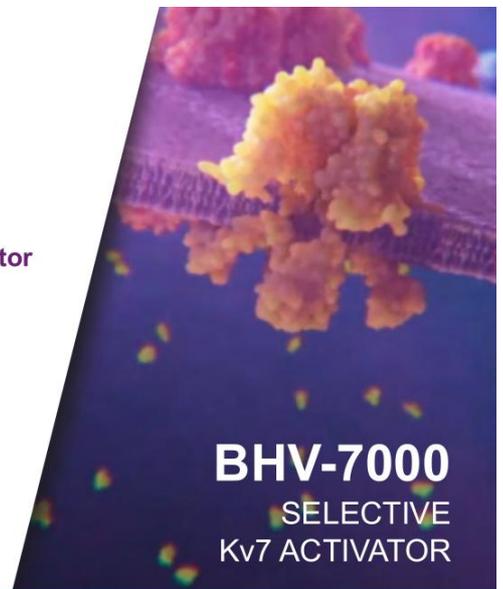
**KEY  
POINT**

- Pivotal MDD topline results expected 2H 2025
- 1<sup>st</sup> focal epilepsy study topline results expected 1H 2026

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**BHV-7000**  
SELECTIVE  
Kv7 ACTIVATOR

# BHV-7000: Potential Best-in-Clinic Selective Kv7 Activator Nears Completion of Pivotal Trials with Blockbuster Potential



## Major Depressive Disorder 21M Patients

- Clinically validated MOA for MDD
- Differentiated profile vs. SSRIs

Topline results expected  
in 2H 2025



## Epilepsy 3.5M Patients

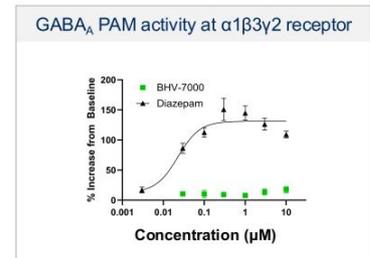
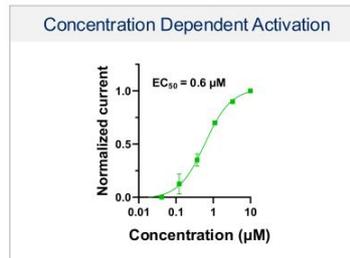
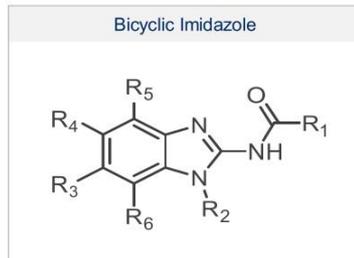
- Clinically validated MOA for epilepsy
- Global Phase 2/3 program ongoing in focal epilepsy (2 trials) and idiopathic generalized epilepsy (1 trial)

1st focal epilepsy study topline  
results expected in 1H 2026

# BHV-7000 Med-Chem Designed to Fully Leverage Kv7 Target Potential

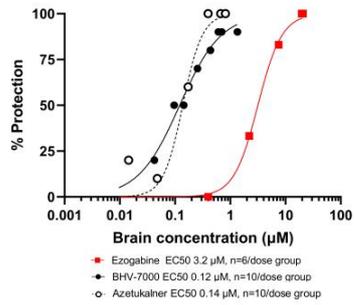
## Key areas of differentiation to discover and develop best-in-class Kv7 activator

Pharmacophore-based design principles	Screening and Tier I ADME	Advanced bridging <i>in vitro</i> and <i>in vivo</i> assays	Clinical
Novel scaffolds	Functional primary screen	Potent context pharmacology	Wide therapeutic index
Photostability	Off-target screening (GABA)	Anti-seizure activity and tolerability	CNS active without delta enhancement

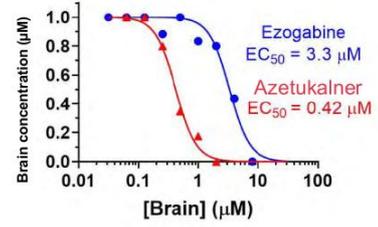


## BHV-7000 Equipotent With Azetukalner in Preclinical MES Assay

Efficacy of BHV-7000, Azetukalner and Ezogabine in the Rat AC-MES Assay



Efficacy of Azetukalner and Ezogabine in the Mouse AC-MES Assay<sup>1</sup>

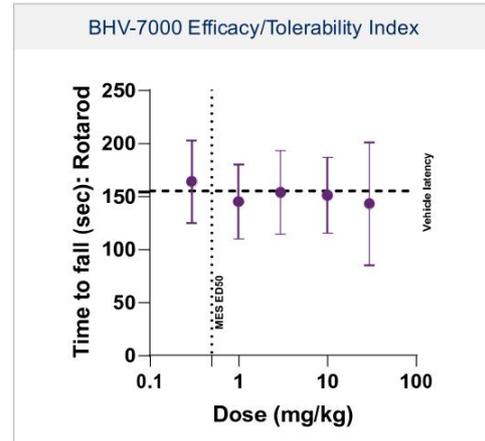
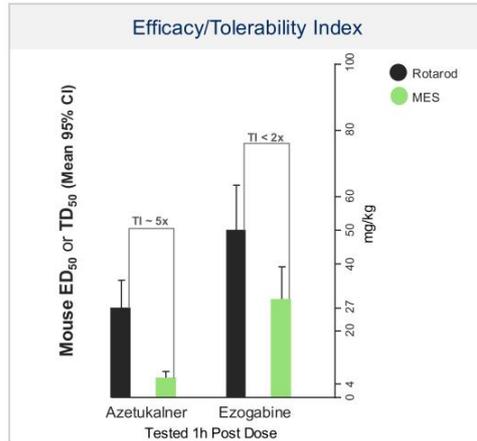


<sup>1</sup> Dean, AES 2020, Poster #654.

**KEY  
POINT**

BHV-7000 potency consistently ~ 120 nM in complex neuronal system assays

# BHV-7000 Differentiated Preclinically From Ezogabine and Azetukalner With Superior Tolerability



**KEY  
POINT**

No effect of BHV-7000 on rotarod fall latency at 60x the ED<sub>50</sub> — TI not calculable

# Single Doses of BHV-7000 IR Achieve Multiples Above MES EC<sub>50</sub> and Are Well-Tolerated in Healthy Volunteers

BHV-7000				Nervous System AEs, n (%) <sup>1</sup>		
Dose (mg)	C <sub>max</sub> (ng/mL)	MES EC <sub>50</sub> (ng/mL)	C <sub>max</sub> : MES EC <sub>50</sub>	Somnolence	Dizziness	Headache
25	253 (12)	186	1.36x	0	0	1 (16.7)
50	664 (31)	186	3.57x	0	0	1 (16.7)
100	877 (42)	186	4.72x	0	0	0

Azetukalner <sup>2,a</sup>				Nervous System AEs, n (%)		
Dose (mg)	C <sub>max</sub> (ng/mL)	MES EC <sub>50</sub> <sup>3</sup> (ng/mL)	C <sub>max</sub> : MES EC <sub>50</sub>	Somnolence	Dizziness	Headache
25	45.8 (14.3)	81	0.57x	2 (33.3)	3 (50.0)	0

1. Awasare B, et al. AES 2023. Poster 3.265. 2. Aycardi. AES 2018. Poster 3.282. 3. Dean. AES 2020. Poster 654. AES 2020.  
a. Dosed fasted

# Multiple Doses of BHV-7000 ER Exceed MES EC<sub>50</sub> Over Entire Dosing Interval and Are Well-Tolerated in Healthy Volunteers

BHV-7000						Nervous System AEs <sup>1</sup>		
QD x 7 days (mg)	Cmax (ng/mL)	Ctau (ng/mL)	MES EC <sub>50</sub> (ng/mL)	Cmax: MES EC <sub>50</sub>	Ctau: MES EC <sub>50</sub>	Somnolence	Dizziness	Headache
50	406 (21.8)	265 (26.0)	186	2.18x	1.42x	0	0	0

Azetukalner <sup>2,a</sup>						Nervous System AEs, n (%)		
QD x 10 days (mg)	Cmax (ng/mL)	Ctau <sup>3</sup> (ng/mL)	MES EC <sub>50</sub> <sup>4</sup> (ng/mL)	Cmax: MES EC <sub>50</sub>	Ctau: MES EC <sub>50</sub>	Somnolence	Dizziness	Headache
25	96.7 (8.6)	59.5	81	1.19x	0.73x	4 (66.7)	2 (33.3)	3 (50.0)

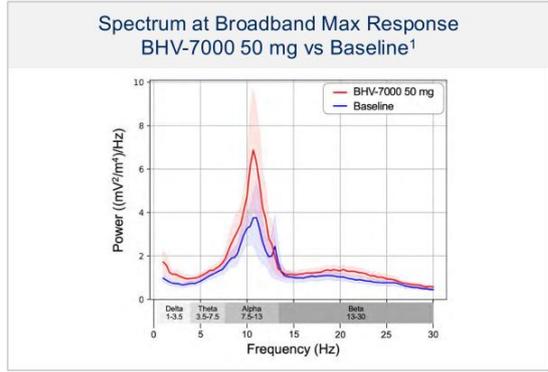
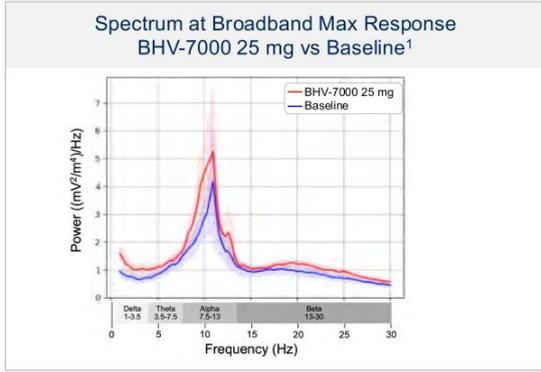
1. Awasare B, et al. AES 2024. Poster 486. 2. Aycardi, AES 2018. Poster 3.282, AES 2018. 3. Digitized estimate from Aycardi, AES 2018. Poster 3.282. 4. Dean, AES 2020. Poster 654.

a. Dosed fed

**KEY POINT**

In contrast to BHV-7000, azetukalner exhibits dose-limiting CNS tolerability issues in healthy volunteers at exposures predicted to be effective by preclinical MES data

# Dose-Response BHV-7000 CNS Activity Demonstrated in EEG Study



Single Dose (mg)	Cmax (ng/mL)	Somnolence	Nervous System AEs		
			Dizziness	Headache	
25	309 (35.7)	0	0	0	
50	537 (36.4)	0	0	0	

<sup>1</sup> Lerner J, et al. AES 2023. Poster 2.510.

## Excellent CNS Tolerability Observed in Ongoing Phase 2/3 Focal Epilepsy Studies (Blinded Data) Consistent With Phase 1 Profile

BHV-7000			
Doses (mg)	Nervous System AEs, %		
	Somnolence	Dizziness	Headache
25/50/75	1.7	1.1	3.3

No AEs observed at > 5% in any SOC; studies are still ongoing

Azetukalner <sup>1</sup>			
Doses (mg)	Nervous System AEs, %		
	Somnolence	Dizziness	Headache
10/20/25	15.6	24.6	10.0

1. French JA, et al. *JAMA Neurol.* 2023;80(11):1145-1154.

**KEY  
POINT**

BHV-7000 well-tolerated in focal epilepsy at exposures predicted to be effective based on preclinical data and associated with CNS activity on EEG in healthy volunteers

## BHV-7000: Two Phase 2/3 Studies in Focal Epilepsy Ongoing



<b>DESIGN</b>	Randomized, double-blind, placebo-controlled trials
<b>POPULATION</b>	Subjects 18-75 years of age with refractory focal epilepsy
<b>SAMPLE SIZE</b>	390 subjects in each study (randomized 1:1:1)
<b>KEY ENTRY CRITERIA</b>	Average of $\geq 4$ observable focal seizures per 28 days
<b>ENDPOINTS</b>	Change in seizure frequency, 50% responder rate, seizure freedom

## BHV-7000: Phase 2/3 Study in Idiopathic Generalized Epilepsy Ongoing



<b>DESIGN</b>	Randomized, double-blind, placebo-controlled trial
<b>POPULATION</b>	Subjects 18-75 years old with idiopathic generalized epilepsy with intractable generalized tonic-clonic seizures
<b>SAMPLE SIZE</b>	242 subjects (randomized 1:1)
<b>TREATMENT</b>	BHV-7000 75 mg vs. placebo
<b>TREATMENT DURATION</b>	Up to 24-week double-blind phase
<b>ENDPOINT</b>	Time to event (2nd day with generalize tonic-clonic seizure)

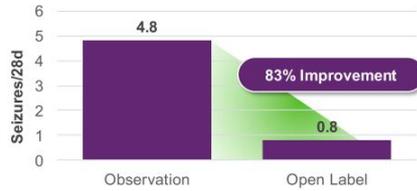
**KEY  
POINT**

Pivotal Phase 2/3 IGE study initiated in 1H 2024

## BHV-7000: Patient Case Report From OLE

### Sample Patient Case Report

- **Subject:** 71-year-old male
- **Type of seizure:** focal impaired awareness
- **Seizure description:** tingling and twitching of cheek spreading to neck and arm followed by arm rigidity and impaired awareness
- **Failed treatments:** levetiracetam, valproate
- **Seizure frequency:** 83% improvement from observation



Preliminary data, study ongoing.

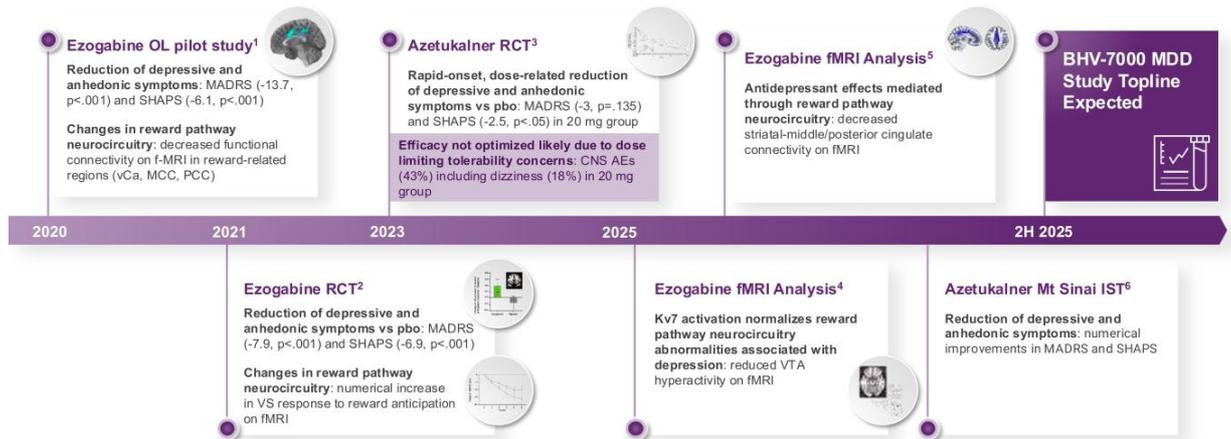
*“Subject has experienced a total of 5 seizures during 176 days in the OLE period. However, he has been **seizure-free for the past 3 months**. Additionally, **no side effects** have been reported during this time. The patient has also demonstrated **meaningful improvement in his quality of life**, reported by both him and his family. They have expressed satisfaction with the treatment and are very positive about their overall experience.”*

**-- BHV-7000 Focal Epilepsy Clinical Trial Investigator**

**KEY  
POINT**

BHV-7000 has substantial seizure reduction in selected OLE patient

# Increasing Clinical Evidence Supports Potential of Kv7 Activation in MDD



SHAPS, Snaith-Hamilton Pleasure Scale; MADRS, Montgomery Åsberg Depression Rating Scale; OL, Open-Label; RCT, Randomized Control Trial; fMRI, Functional Magnetic Resonance Imaging; IST, Investigator Sponsored Trial.

1. Tan, et al. *Mol Psychiatry*, 2020 Jun;25(6):1323-1333; 2. Costi, et al. *Am J Psychiatry*, 2021 May 1;178(5):437-446; 3. Butterfield N, et al. ASCP 2024, Poster W67. 4. Morris, et al. *Mol Psychiatry*, 2025 Mar 25; 5. Chowdhury, et al. *Biol Psychiatry*, 2025 Mar 4:S0006-3223(25)01011-X; 6. Xenon Press Release May 12, 2025.

## BHV-7000: Phase 2 Study in Major Depressive Disorder Ongoing



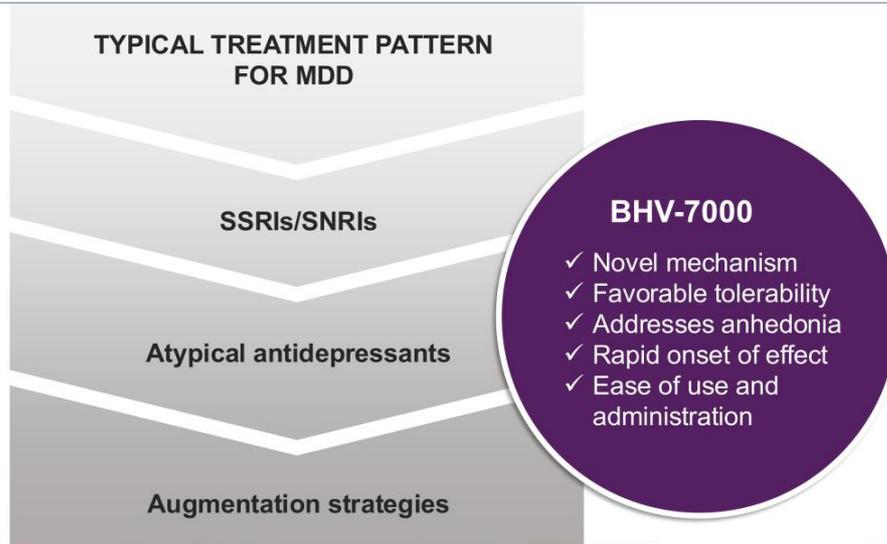
<b>DESIGN</b>	Randomized, double-blind, placebo-controlled trial
<b>POPULATION</b>	Subjects with Major Depressive Disorder (MDD) with at least one prior depressive episode who are currently experiencing a depressive episode with anhedonia (HAM-D $\geq$ 20, SHAPS $\geq$ 20)
<b>SAMPLE SIZE</b>	300 subjects (randomized 1:1)
<b>TREATMENT</b>	BHV-7000 vs placebo
<b>TREATMENT DURATION</b>	6-weeks
<b>ENDPOINTS</b>	MADRS (primary), SHAPS, CGI-S, Q-LES-Q-SF

SHAPS, Snaitch-Hamilton Pleasure Scale; MADRS, Montgomery Åsberg Depression Rating Scale; CGI-S, Clinical Global Impression Scale – Severity; Q-LES-Q-SF, Quality of Life Enjoyment and Satisfaction Questionnaire.



Topline results expected 2H 2025

## BHV-7000 Has Potential to Overcome Limitations of Existing Therapies





BHV-2100:  
TRPM3 Antagonist for Pain

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### First-in-Clinic TRPM3 Antagonist — Novel Mechanism for the Treatment of Pain

- BHV-2100 is an orally administered, peripherally-restricted and selective TRPM3 antagonist
- Preclinical data shows robust efficacy in pain models
- Highly differentiated from programs that target TRPV1 and TRPA1, avoids TRP family liabilities

### Phase 1 Study Data Supports Evaluation in Pain

- BHV-2100 demonstrated excellent safety/tolerability and favorable PK
- Proof of concept demonstrated for pain

### The Therapeutic Landscape of TRPM3-Targeted Therapies Is Evolving

- Emerging data support the potential for targeting TRPM3 in nociceptive pain conditions
- Non-clinical data support brain-penetrant TRPM3 program in epilepsy and pain

### Milestones Achieved

- Early signal of efficacy observed in laser-evoked pain trial
- Proof-of-concept trial in acute treatment of migraine completed with no efficacy signal detected



**BHV-2100**  
TRPM3 ANTAGONIST



Proof-of-concept for pain demonstrated; program advancing to later stage pain trials

## BHV-2100: Targeting the Unmet Medical Need in Pain

### Emerging role of novel mechanisms: ion channels in the periphery

Emerging Review of Pain

#### PAIN

**John J. Bonica Award Lecture: Peripheral neuronal hyperexcitability: the "low-hanging" target for safe therapeutic strategies in neuropathic pain**

Srivastava N, Raju<sup>1</sup>, Mathias Ringkamp<sup>2</sup>, Yari Guan<sup>3</sup>, James N. Campbell<sup>4</sup>

#### The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 AUGUST 3, 2023 VOL. 380 NO. 5

#### Selective Inhibition of Na<sub>v</sub>1.8 with VX-548 for Acute Pain

J. Jones, D.J. Cornell, S.M. Lechner, I. Jankovic, X. Miao, D. Shaw, C. Simard, J.D. Ostrem, B. Hank, A. Boston, T. Bertsch, A. Buvanendran, A.S. Habib, L.J. Fucci, E.A. Pollak, S.G. Wiener, C. Bock, P. Nigulescu, and P.F. White, for the VX21-548-101 and VX21-548-102 Trial Groups\*

### ACUTE PAIN & NEUROPATHIC PAIN

**KEY  
POINT**

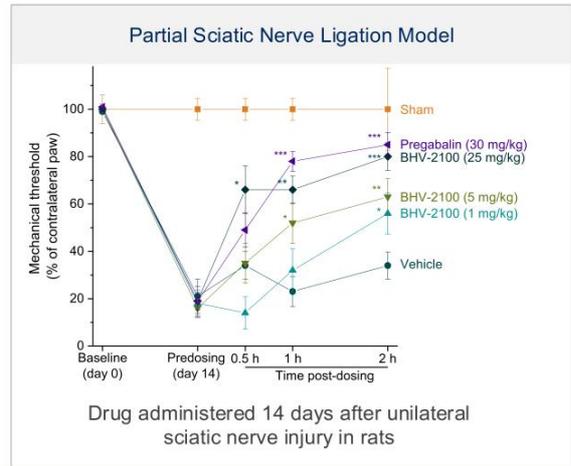
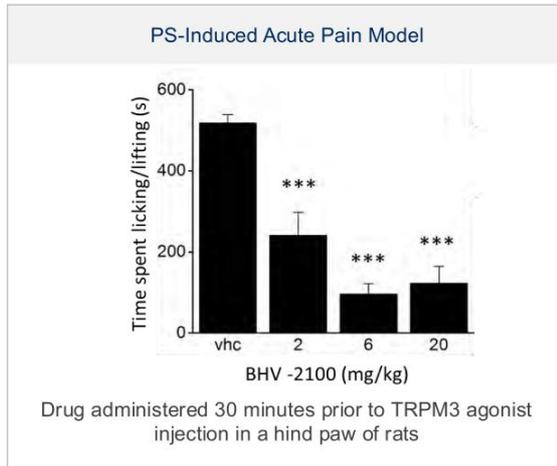
BHV-2100 is a selective, peripherally-restricted TRPM3 antagonist that is a potentially highly-effective, non-sedating, non-opioid treatment for pain

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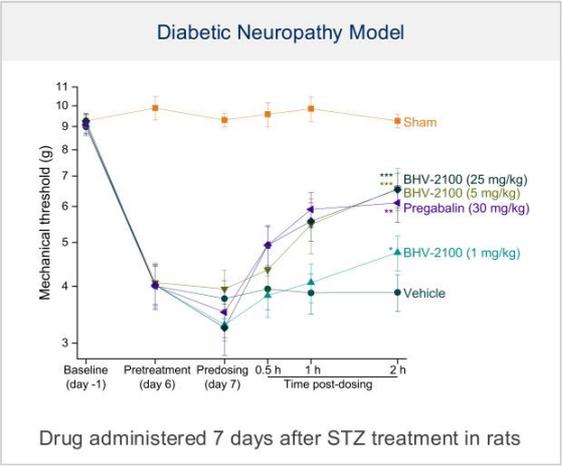
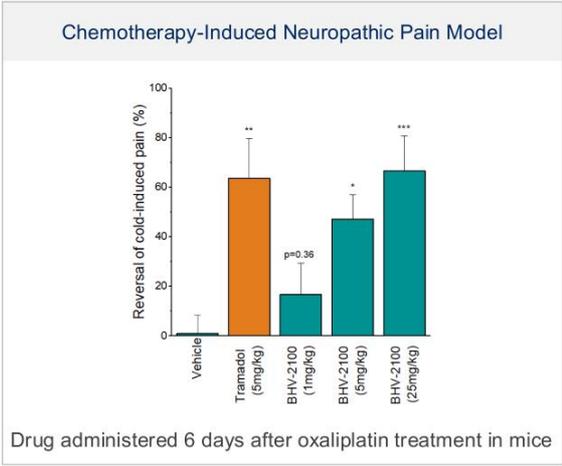
# BHV-2100: Potently Reduces Acute Chemogenic Pain and Pain Following Nerve Injury



**Encouraging evidence of pain reduction without the sedation observed with high-dose pregabalin**

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

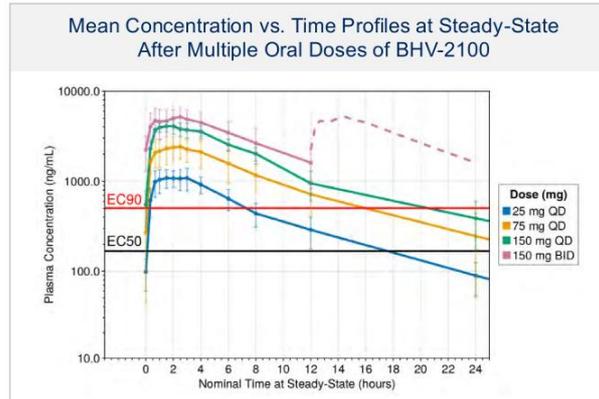
# BHV-2100: Reverses Established Pain States in Peripheral Neuropathic Pain Models



**Encouraging evidence of pain reduction without the sedation observed with high-dose pregabalin/tramadol**

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

## BHV-2100: Ideal Pharmacokinetic Profile for Treating Pain



EC90 represents the estimated plasma concentration threshold based on a preclinical model

**KEY  
POINT**

Phase 1 data in healthy subjects shows plasma PK exceeds EC90 by 20 min at all doses tested and is sustained above EC50 for 24 hours at doses > 25 mg QD

## BHV-2100: Safe and Well-Tolerated in Healthy Subjects

### SAFETY AND TOLERABILITY

- No dose limiting toxicities in studies
- No SAEs
- No severe TEAEs; most TEAEs were mild
- No clinically significant trends in vital signs (including body temperature), laboratory values, or ECGs

### DOSING

- SAD: single doses up to 500 mg
- MAD: multiple doses up to 150 mg twice a day for 14 days

SAD Cohorts (pooled) TEAEs in ≥ 2 subjects	Placebo (N=9) n (%)	BHV-2100 (N=30) n (%)
Dizziness	0 (0)	2 (6.7)
Fatigue	0 (0)	2 (6.7)

MAD Cohorts (pooled) TEAEs in ≥ 2 subjects	Placebo (N=8) n (%)	BHV-2100 (N=24) n (%)
	0 (0)	0 (0)

MAD, multiple ascending dose; SAD, single ascending dose; SAE, serious adverse events; TEAE, treatment emergent adverse events.  
Pooled preliminary data.

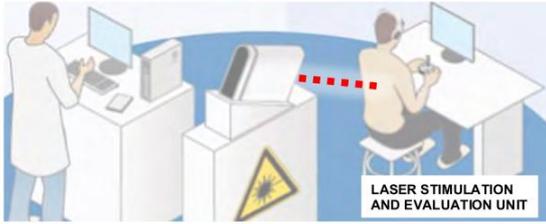


No TEAE occurred in > 1 participant across the MAD cohorts



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## BHV-2100: Proof of Concept Pain Study Demonstrates Anti-Nociceptive and Anti-Hyperalgesic Effects

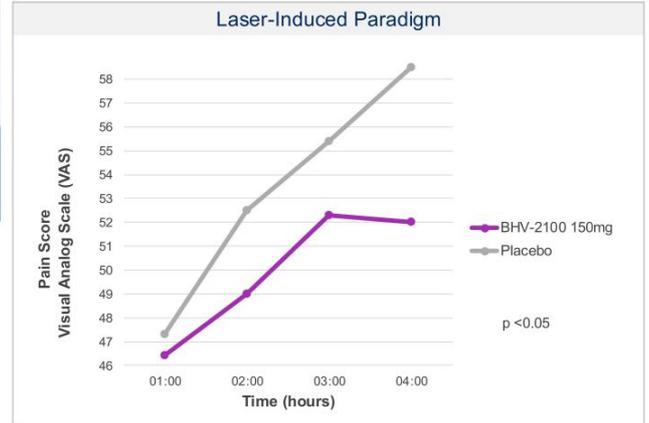


### Efficacy

- Lowering in self-reported VAS pain rating scale
- Clinically meaningful reductions in laser-evoked potentials in normal and UVB-inflamed skin

### Safety

- Well-tolerated
- No effects observed on core temperature
- No change on heat pain threshold

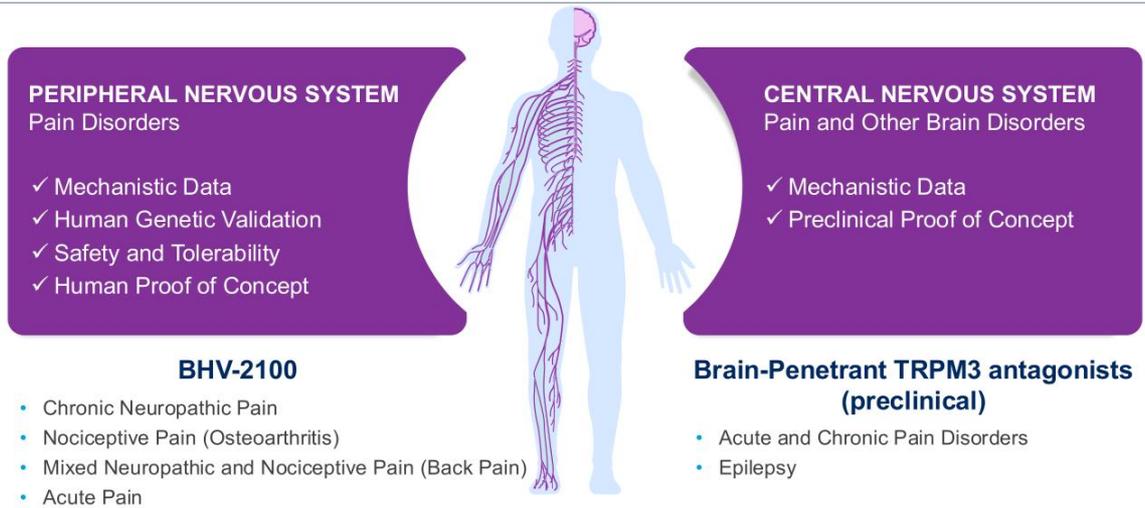


Preliminary Data up to Tmax; p-value out to 8 hour test period

**KEY**  
POINT

First indication of potential clinical efficacy in pain with the novel TRPM3 mechanism

## TRPM3 Platform Offers Potential to Treat an Expanding Range of Diseases





biohaven®

BHV-8000:

Brain-Penetrant TYK2/JAK1 Inhibitor for Parkinson's Disease

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### First-in-Clinic, Brain-Penetrant, Selective TYK2/JAK1 Inhibitor for the Treatment of Neuroinflammatory and Neurodegenerative Diseases

- TYK2 and JAK1 inhibition target key inflammatory signaling pathways
- Selectivity profile avoids safety liabilities of JAK2/3 inhibition

### Breaks Cycle of Central and Peripheral Inflammation

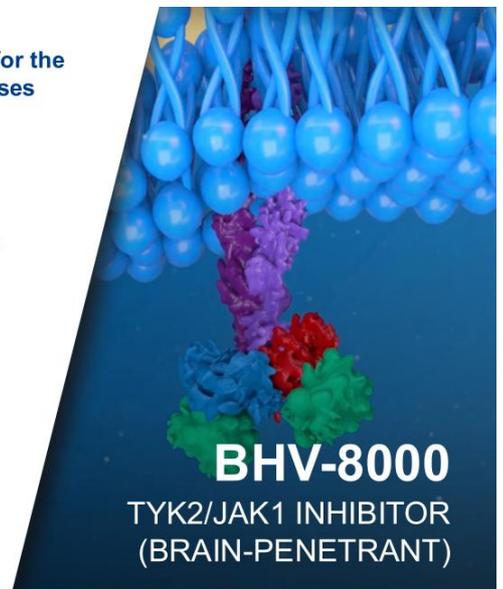
- Autoimmunity plays key role in Parkinson's and is novel therapeutic target
- TYK2/JAK1 inhibition reduces inflammatory impact of activated microglia and astrocytes in the CNS, and infiltrating T lymphocytes

### Encouraging Results from Phase 1

- Well-tolerated
- Achieves target engagement
- Robust brain penetration

### Phase 2/3 Parkinson's Disease Study Ongoing

Innovative study design optimized for efficiency and sensitivity in detecting clinically meaningful change



**BHV-8000**

TYK2/JAK1 INHIBITOR  
(BRAIN-PENETRANT)

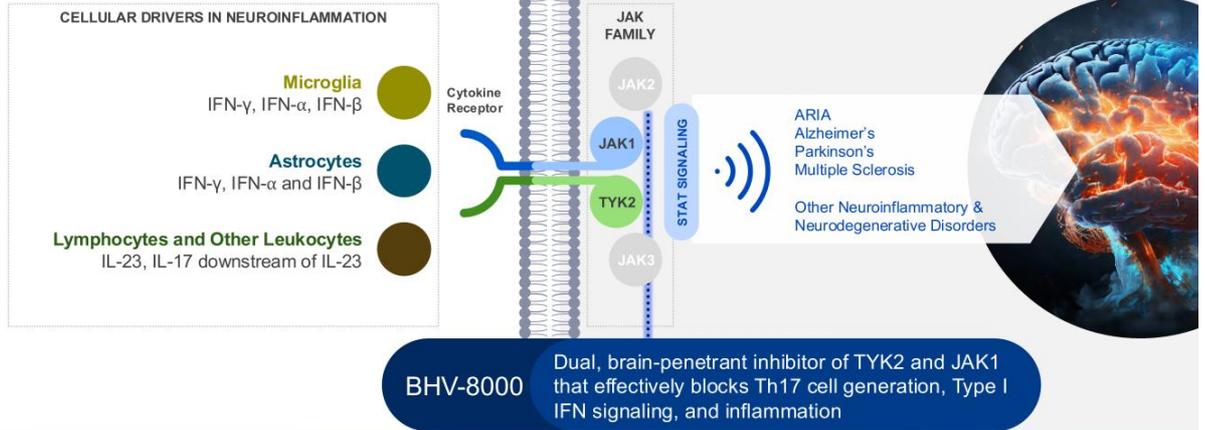
**BREAKING  
NEWS**

Phase 2/3 Parkinson's study initiated May 2025

# BHV-8000: Brain-Penetrant TYK2/JAK1 Inhibitor With Potential to Treat Neuroinflammatory & Neurodegenerative Disorders

Inflammation plays a key role in the pathogenesis of neurodegenerative diseases

Nonclinical, clinical, genetic, and epidemiological data show that interrupting chronic inflammation may slow disease progression



## BHV-8000: Selectivity Predicts Improved Safety With Targeted Efficacy

Approved JAK Inhibitors — Significant Safety Risks Associated with JAK2 and/or JAK3 Inhibition						
Inhibitor	Status	IC <sub>50</sub> in nM				Safety
		JAK1 (autoimmune)	JAK2 (hematology)	JAK3 (leucocyte)	TYK2 (inflammation)	
Tofacitinib <sup>1</sup>	Approved	15	77	55	489	Boxed Warning (MACE, malignancy, thrombosis, serious infections)
Baricitinib <sup>1</sup>	Approved	4	7	787	61	Boxed Warning
Upadacitinib <sup>1</sup>	Approved	47	120	2304	4690	Boxed Warning
Abrocitinib <sup>1</sup> (selective JAK1)	Approved	29	803	>15,000	1250	Boxed Warning* (*Development program suggests no increased clinical risk for these events)
Deucravacitinib <sup>1</sup> (selective TYK2)	Approved	>10,000	>10,000	>10,000	0.2	<u>NO</u> Boxed Warning

BHV-8000 Expected to Have a Favorable Safety Profile (avoids JAK2 and JAK3 inhibition)						
Inhibitor	Status	IC <sub>50</sub> in nM				Safety
		JAK1 (autoimmune)	JAK2 (hematology)	JAK3 (leucocyte)	TYK2 (inflammation)	
<b>BHV-8000</b>	Phase 2 ready	4	118	>500	4	No expected risk of JAK2 and JAK3-related safety issues

IC<sub>50</sub>, half maximal inhibitory concentration; JAK, Janus kinase; MACE, major adverse cardiac event; TYK, tyrosine kinase.  
1. Wroblewski et al. *J Med Chem.* 2019;62(20):8973-8995.

## BHV-8000: Demonstrates a Promising Phase 1 Profile



### Phase 1 program completed

- Includes SAD/MAD study in healthy adults



### Well-tolerated

- No SAEs or severe AEs
- No adverse laboratory trends related to study drug



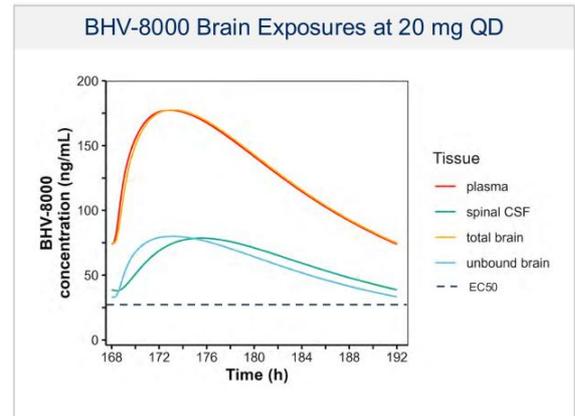
### Evidence of target engagement

- Reduced plasma inflammatory cytokines downstream of TYK2 (IP-10, IFN $\beta$ ) and JAK1 (hsCRP, IFN $\beta$ )



### Robust brain penetration

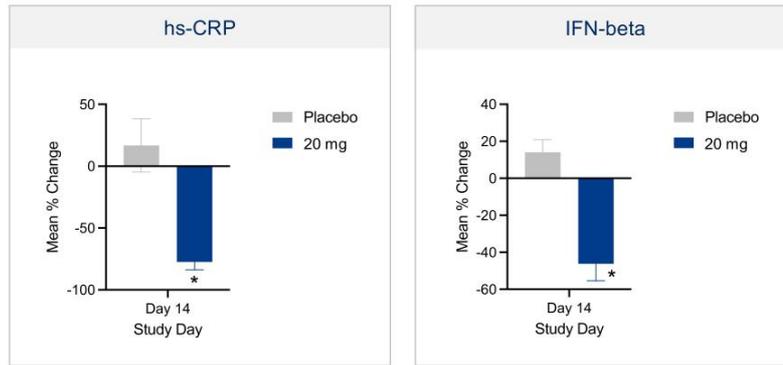
- Exposures in CNS approximately 50% of plasma concentrations



**KEY**  
POINT

Brain exposure sustained above target EC50s for 24 hours at clinically relevant doses

## BHV-8000: Shows Evidence of Pharmacodynamic Effects



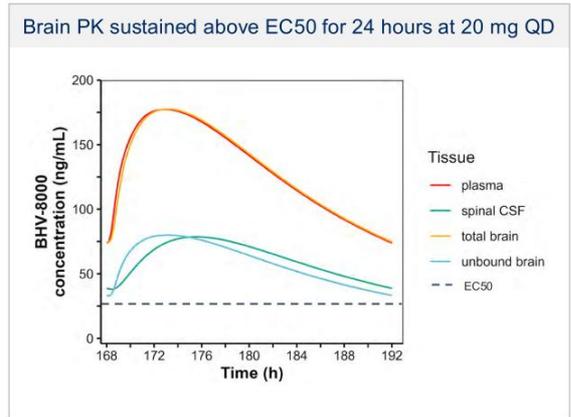
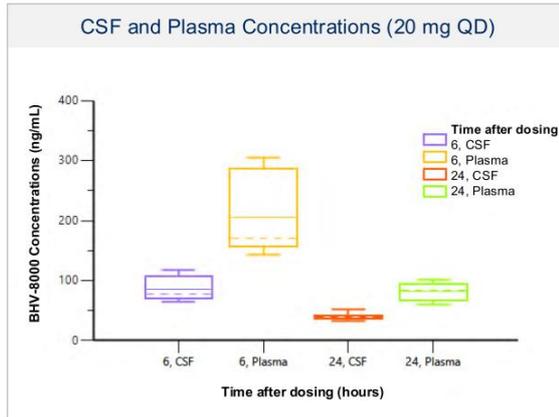
\* p<0.05

Preliminary Phase 1 data. hs-CRP, high-sensitivity C-reactive protein; IFN-beta, Interferon beta.

**KEY**  
POINT

Pharmacodynamic data is indicative of target engagement in healthy subjects

# BHV-8000: Demonstrates CNS Exposure



CSF, Cerebro Spinal Fluid

Modelling data



Expected to have sustained brain exposures above EC50 (target engagement)



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# Parkinson's Disease Is an Autoimmune Disorder



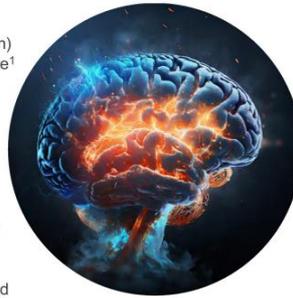
## PD meets criteria for autoimmunity based on pathophysiology and genetics

- Misidentification of self-proteins ( $\alpha$ -synuclein) as foreign antigen triggers immune response<sup>1</sup>
- GWAS studies link PD risk to HLA gene variants involved in antigen presentation<sup>2</sup>



## Epidemiology reveals increased risk of PD in individuals with other autoimmune diseases<sup>3</sup>

- Epi studies suggest immune dysfunction and inflammation are key to the development of PD<sup>4</sup>
- Reduction in rates of PD have been seen when this population is exposed to immune-modulating therapies<sup>5</sup>



## PD animal models demonstrate immune dysregulation drives neurodegeneration<sup>6</sup>



- In mouse models, T cells specific to  $\alpha$ -synuclein peptides can induce dopaminergic neuronal loss<sup>7</sup>
- Manipulation of immune components (T cells) affect  $\alpha$ -synuclein-induced neurodegeneration<sup>8</sup>

## PD patient samples and imaging exhibit characteristic proinflammatory signatures<sup>9,10</sup>



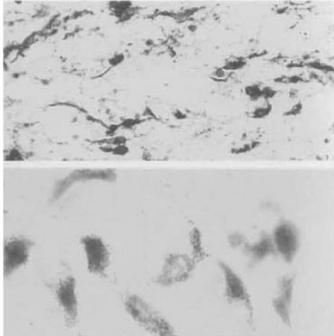
- Proinflammatory cytokines (e.g., IL-6, TNF- $\alpha$ , IFN $\gamma$ ) are found in CSF and blood of PD patients<sup>11</sup>
- PD brains express high levels of HLA-DR+ reactive microglia<sup>12</sup>

1. Sulzer, *Nature* 2017; 2. Wissemann, *Am J Hum Genet* 2013; 3. Li, *Front Immunol* 2023; 4. Tansey, *Nat Rev Immunol* 2022; 5. Potashman, *Parkinsonism Relat Disord* 2025; 6. Roodveldt, *Brain* 2024; 7. Karikari, *Brain Behav Immun* 2022; 8. Williams, *Brain* 2021; 9. Yacoubian, *Mov Disord* 2023; 10. Pajares, *Cells* 2020; 11. Qu, *Nature* 2023; 12. McGeer, *Neurology* 1988.

# BHV-8000: Clinical Data Supports Targeting Neuroinflammation in Parkinson's Disease

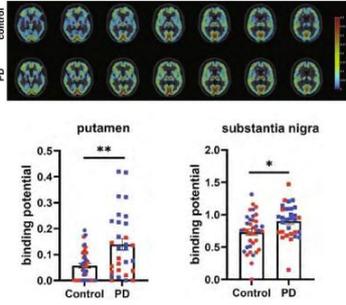
### Post-Mortem Data<sup>1</sup>

PD patient brains express high levels of HLA-DR+ reactive microglia



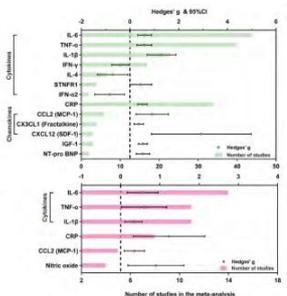
### In Vivo Imaging<sup>2</sup>

<sup>18</sup>F-DPA-714 TSPO imaging increased in early PD relative to healthy controls



### In Vivo Cytokine Levels<sup>3</sup>

Elevated levels of pro-inflammatory cytokines (e.g., IL-1 $\beta$ , IL-6, TNF- $\alpha$ , IFN- $\gamma$ ) found in the CSF and blood of PD patients



1. McGeer PL, et al. *Neurology*. 1988 Aug;38(8):1285-91. 2. Yacoubian TA, et al. *Mov Disord*. 2023 May;38(5):743-754. 3. Qu Y, et al. *NPJ Parkinson's Dis*. 2023 Feb 4;9(1):18.

# Real-World Analytics of Large Healthcare Database Show Parkinson's Disease Risk Reduction With TNF/IL-17 Targeting Therapies

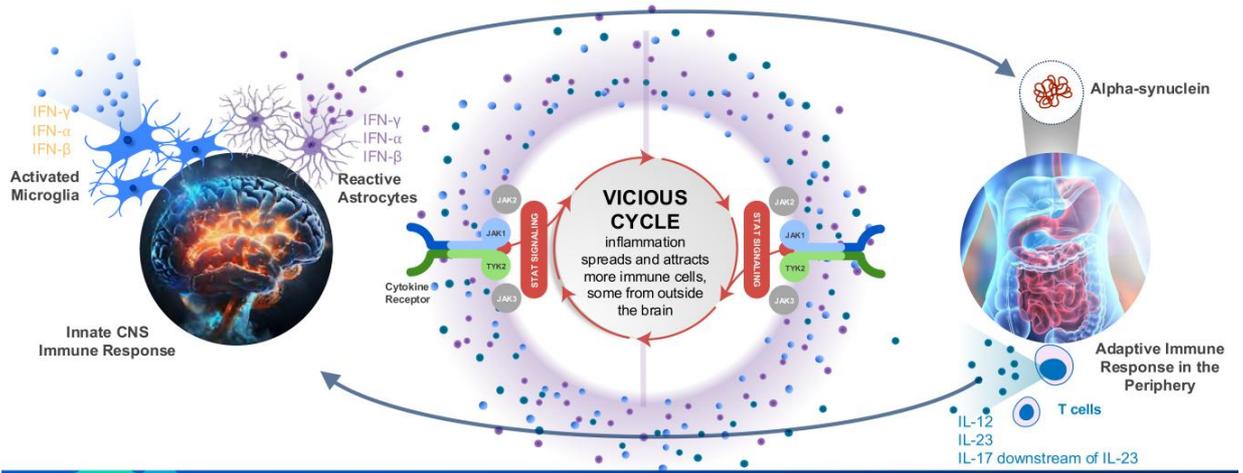


- Biohaven conducted analysis using Komodo Health database (over 320 million patients since 2012) examining treatment with anti-TNF or anti-IL17 and incidence of PD
- Millions of patients over 8+ years of dosing captured key epidemiologic confirmation of the neuroinflammatory hypothesis
- Results support rationale for the effectiveness of BHV-8000 in treating PD

Treatment	PD Events	Person-years	Rate (per 100 person-years)	Adjusted IRR (95% CI)	P-value
Anti-TNF or Anti-IL-17 exposure	2,957	393,114	<b>0.66</b>	0.77 (0.74 – 0.80)	<0.0001
No Treatment	50,562	5,328,307	0.95		
Anti-TNF exposure	2,471	371,867	<b>0.66</b>	0.64 (0.52 – 0.80)	<0.0001
No Treatment	50,562	5,328,307	0.95		
Anti-IL-17 exposure	81	15,598	<b>0.52</b>	0.77 (0.78 – 0.81)	<0.0001
No Treatment	50,562	5,328,307	0.95		

IRR, incidence rate ratio; TNF, tumor necrosis factor.

# TYK2/JAK1 Signaling Fuels Inflammation Driving Disease Progression in Parkinson's Disease



**KEY POINT** BHV-8000 treats both central and peripheral immune dysregulation underpinning Parkinson's

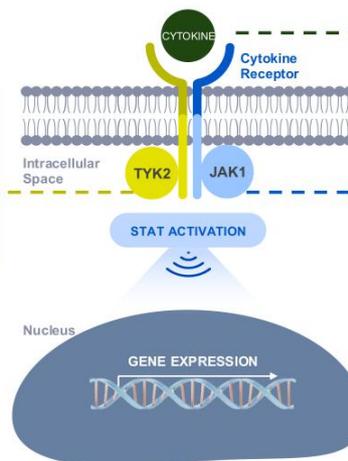
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# BHV-8000 Targets Both TYK2 and JAK1 to Control Immune Dysregulation in Parkinson's Disease

## JAK-STAT SIGNALING PATHWAY

### TYK2 PATHWAY (IL-12, IL-23, etc.)

- Activates cytotoxic CD8 T cells and Th17 CD4 cells (which produce IL-17A) in the periphery
- IL-17A causes glial cell activation, release of neurotoxins such as  $\text{TNF}\alpha$ , and disruption of the blood brain barrier<sup>3</sup>



## SHARED TYK2 AND JAK1 PATHWAY (IL-6, IFN $\alpha$ , IFN $\beta$ , etc.)

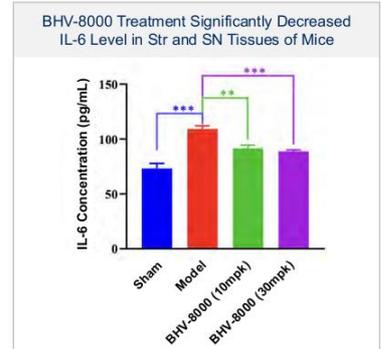
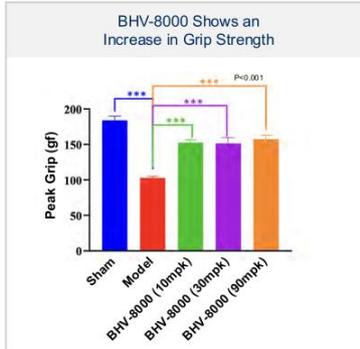
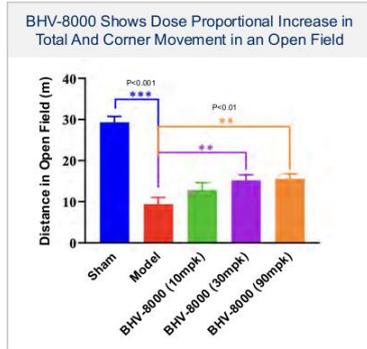
- Type-I IFN signaling is increased in post-mortem human PD brains<sup>1</sup>
- Type-I IFN modulates inflammatory response to  $\alpha$ -syn in the gut, potentiating pathology along the gut-brain axis<sup>2</sup>

## JAK1 PATHWAY (IL-4, IFN $\gamma$ , etc.)

- Activates CNS innate immune cells (microglia and astrocytes)
- Promotes T cell infiltration and upregulation of MHC II expression on glial cells and macrophages – exacerbating immune activation in the CNS<sup>4</sup>

1. Main, *Glia*, 2016; 2. Waters, *bioRxiv*, Accessed May 15, 2025. <https://www.biorxiv.org/content/10.1101/2024.05.05.592614v1>; 3. Chen, *Front Aging Neurosci.* 2020; 4. Hong, *J Neuroinflammation*, 2024

# BHV-8000: Efficacious in an AAV- $\alpha$ -synuclein Mouse Model of Parkinson's



## Phase 2/3 Study in Early Parkinson's Disease Initiated



POPULATION	Male and female adults living with early untreated PD
STUDY SIZE	550 participants randomized 1:1:1 (stratified by study site), 185 study sites across 13 countries (NA/EU)
TREATMENT	BHV-8000 10 mg or 20 mg or matching PBO PO once daily
TREATMENT DURATION	48-week double-blind treatment period. Completers to rollover into a 48-week extension study
KEY ENDPOINTS	<b>PRIMARY:</b> Time to qualifying worsening event on MDS-UPDRS Part II; <b>SECONDARY:</b> Change in MDS-UPDRS Part III, CGI-S, DaT-SPECT, PARCOMS composite scale, and Safety/tolerability

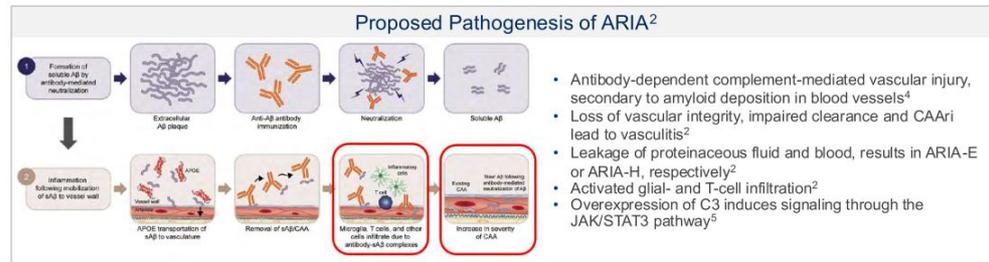
MDS-UPDRS, Movement Disorder Society – Unified Parkinson's Disease Rating Scale; CGI-S, Clinician Global Impression of Severity scale; PARCOMS, Parkinson's composite scale that includes most sensitive items from MDS-UPDRS and PDQ-39.



Time-to-event primary endpoint enables fast and focused trial

# BHV-8000: ARIA—A Potential Therapeutic Target for TYK2/JAK1 Inhibition

- ARIA events typically occur early after initiation of anti-amyloid mAb therapy.<sup>1</sup> The occurrence of ARIA can complicate the benefit-risk assessment in certain patient groups
- Reduction or elimination of ARIA should improve the uptake of anti-amyloid mAb therapies
- **Therapeutic hypothesis:**
  - TYK2/JAK1 inhibition reverses activated glial- and T-cell mediated pathology and general inflammation
  - Corticosteroids and other immunosuppressive drugs show benefit in treatment and reduce the risk for ARIA.<sup>1,2,3</sup> Generally, TYK2/JAK1 inhibition has a favorable benefit-risk profile over corticosteroids and other immunosuppressive drugs



<sup>1</sup>Cummings et al. *J Prev Alz Dis.* 2023;3(10):362-77; <sup>2</sup>Hampel et al. *Brain.* 2023;146:4414-24; <sup>3</sup>Regenhardt et al. *JAMA Neurol.* 2020 Oct;77(10):11-10; <sup>4</sup>Alzforum. 2023 <https://www.alzforum.org/news/conference-coverage/aria-inflammatory-reaction-vascular-amyloid>; <sup>5</sup>Yuan et al. *J Exp Clin Cancer Res.* 2020;39:PMCS956509

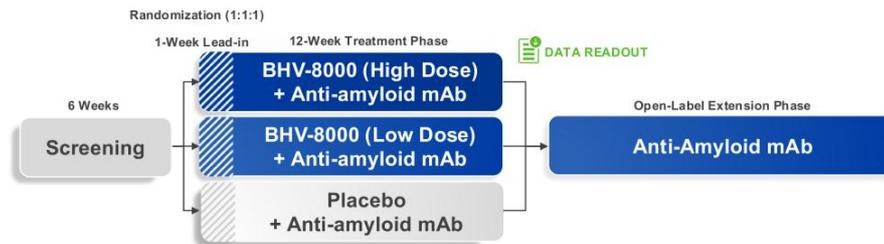
## BHV-8000: Incidence of ARIA-E With Anti-Amyloid Therapy

Anti-Amyloid mAb, (n)	Overall, % (n)	APOE4/4, % (n)	APOE4/-, % (n)	Non-carriers, % (n)
<b>EMERGE &amp; ENGAGE TRIALS<sup>1</sup></b>				
<b>Aducanumab<sup>2</sup></b> (1,029)	35.2 (362)	43.0 <sup>3</sup> (290/674)		20.3 (72/355)
<b>Placebo</b> (1,076)	2.7 (29)	2.2 <sup>3</sup> (16/742)		3.9 (13/334)
<b>CLARITY-AD<sup>4</sup></b>				
<b>Lecanemab</b> (898)	12.6 (113)	32.6 (46/141)	10.9 (52/479)	5.4 (15/278)
<b>Placebo</b> (897)	1.7 (15)	3.8 (5/133)	1.9 (9/478)	0.3 (1/286)
<b>TRAILBLAZER-ALZ<sup>5</sup></b>				
<b>Donanemab</b> (853)	24.0 (205)	40.6 (58/143)	22.8 (103/452)	15.7 (40/255)
<b>Placebo</b> (874)	18 (2.1)	3.4 (5/146)	1.9 (9/474)	0.8 (2/250)

- APOE4 carriers at increased risk for ARIA and accelerated progression of AD<sup>6,7</sup>
- Risk of ARIA can complicate the benefit-risk assessment of anti-amyloid mAbs, the only approved disease-modifying treatment for AD<sup>8</sup>

1. Salloway S, et al., JAMA Neurol. 2022;79(11):13-21. doi:10.1001/jama.2021.4161. 2. Results represent ARIA rates with aducanumab 10 mg/kg. 3. Represents ARIA-E rates with aducanumab (10 mg/kg) in APOE4 carriers (both hetero- and homo-zygotes). 4. van Dyck CH, et al., Lecanemab in early Alzheimer's disease. N Engl J Med. 2023;368(13):21. doi:10.1056/NEJMoa2212948. 5. Sims JR, et al., Donanemab in early symptomatic Alzheimer disease: the TRAILBLAZER-ALZ 2 randomized clinical trial. JAMA. 2023;330(6):512-27. doi:10.1001/jama.2023.13239. 6. Doran SJ, et al., Risk factors in developing amyloid related imaging abnormalities (ARIA) and clinical implications. Front Neurosci. 2024;18:1326784. doi:10.3389/fnins.2024.1326784. 7. Hunsberger HC., The role of APOE4 in Alzheimer's disease: strategies for future therapeutic interventions. Neuronal Signal. 2019;3(2):NS20180203. doi:10.1042/NS20180203. 8. Doran SJ, et al., Risk factors in developing amyloid related imaging abnormalities (ARIA) and clinical implications. Front Neurosci. 2024;18:1326784. doi:10.3389/fnins.2024.1326784.

## BHV-8000: Phase 2/3 Prevention of ARIA Study Design

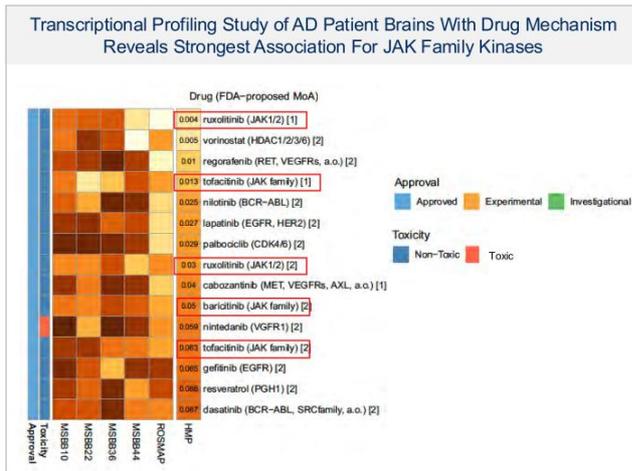


<b>DESIGN</b>	Randomized, double-blind, placebo-controlled trial
<b>POPULATION</b>	Male and female adults with early Alzheimer's disease who are APOE4 gene carriers
<b>SAMPLE SIZE</b>	450 participants (randomized 1:1:1 across 2 active and 1 placebo arm)
<b>TREATMENT</b>	BHV-8000 (high/low dose) vs. Placebo + anti-amyloid mAb
<b>TREATMENT DURATION</b>	1-week lead-in with BHV-8000 or Placebo; 12-week treatment period with BHV-8000 + anti-amyloid mAb; OLE with anti-amyloid mAb only
<b>ENDPOINTS</b>	Incidence of ARIA-E at Week 13; PK/PD; change in inflammatory and AD biomarkers, including brain amyloid

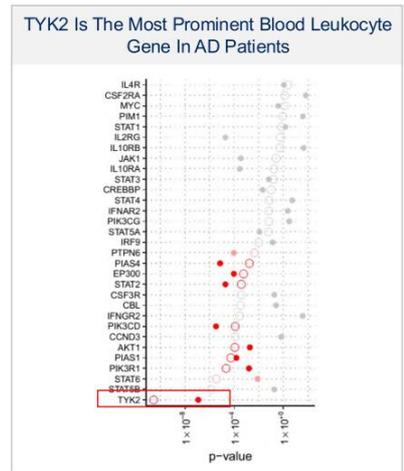
**KEY  
POINT**

Positive FDA feedback on novel prevention of ARIA indication, and on study design and clinical development plan

# BHV-8000: Patient-Derived Evidence of TYK2/JAK1 Signaling in AD

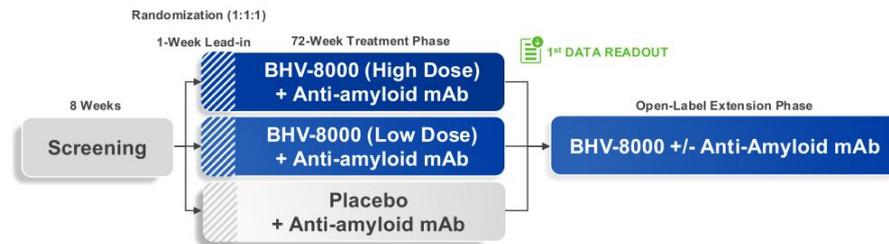


Rodriguez et al, *Nature Communications*. 2021 12:1033



Nevado-Holgado et al, *Cells*. 2019 May 8;8(5):425

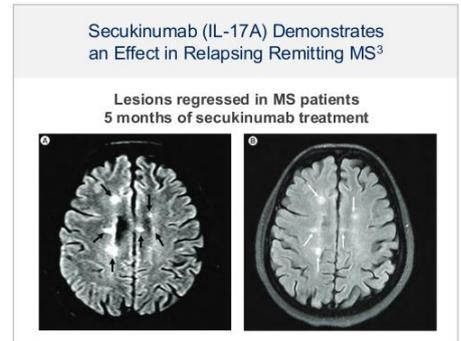
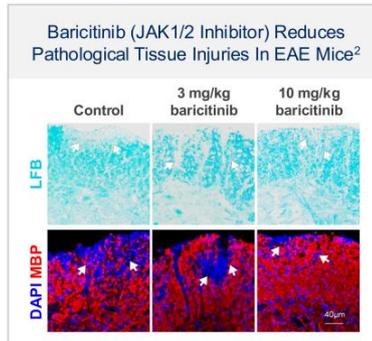
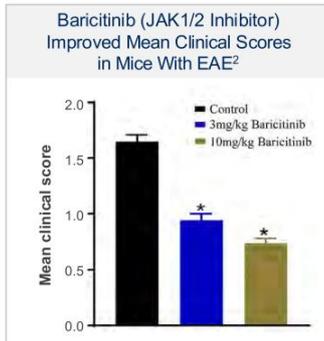
## BHV-8000: Phase 2/3 Disease-Modifying Therapy Study in Early AD



<b>DESIGN</b>	Randomized, double-blind, placebo-controlled trial
<b>POPULATION</b>	Male and female adults with early symptomatic Alzheimer's disease
<b>SAMPLE SIZE</b>	2,000 participants (randomized 1:1:1 across 2 active and 1 placebo arm)
<b>TREATMENT</b>	DBT Phase: BHV-8000 (high/low dose) vs. PBO + anti-amyloid mAb; OLE Phase: BHV-8000 +/- anti-amyloid mAb (IF amyloid PET "negative" can stop anti-amyloid mAb)
<b>TREATMENT DURATION</b>	1W lead-in with BHV-8000 or PBO; 72W DBT Phase; OLE Phase
<b>ENDPOINTS</b>	Primary: iADRS at W73; Secondary: CDR-SB, ADAS-Cog, MMSE, ADCS-iADL; Exploratory: Rates of ARIA, Change in inflammatory and AD biomarkers including brain amyloid / tau

# BHV-8000: TYK2/JAK1 Inhibition Is a Potential Treatment for Multiple Sclerosis

- **Genetic evidence:** Recent study found a protective genetic variation in the TYK2 gene that decreased signaling capacity in response to IL-12 and IL-23, reducing the function of TYK2, resulting in reduction in risk for developing MS<sup>1</sup>
- **Nonclinical data:** Suggests JAK/STAT pathway regulates differentiation and function of Th1 and Th17 cells which are essential for development of experimental autoimmune encephalomyelitis (EAE)<sup>2</sup>
- **Clinical data:** Supports the presence of abnormal immune activation in MS patients<sup>3</sup>



## BHV-8000: Phase 2 Imaging POC Study in Relapsing Multiple Sclerosis



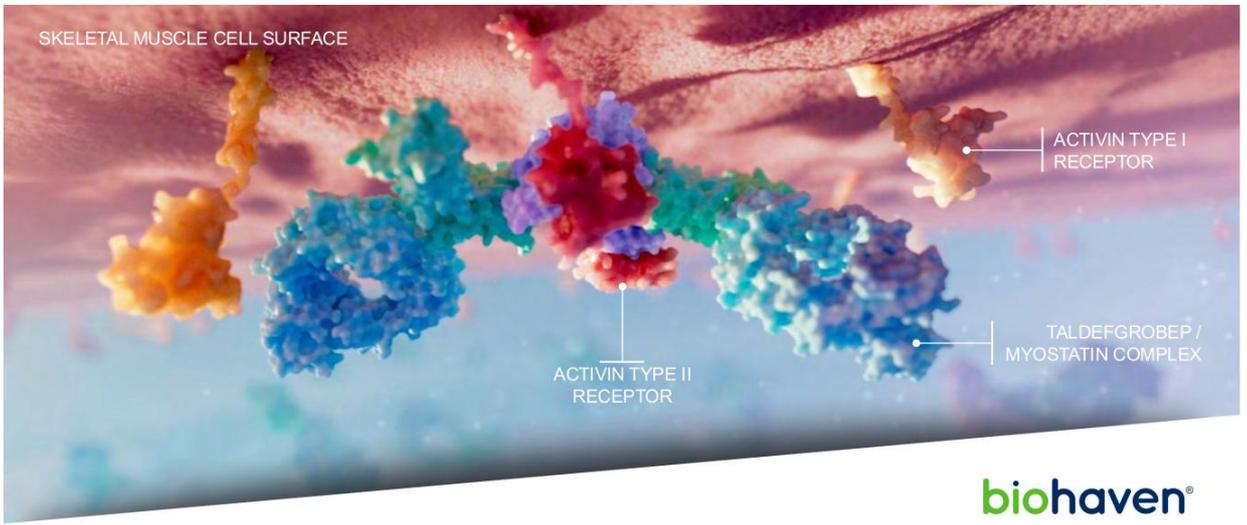
<b>DESIGN</b>	Randomized, double-blind, placebo-controlled Phase 2 imaging proof-of-concept study
<b>POPULATION</b>	Adults with relapsing multiple sclerosis (RMS)
<b>SAMPLE SIZE</b>	140 participants (randomized 2:2:1)
<b>TREATMENT</b>	BHV-8000 low dose or high dose versus placebo
<b>TREATMENT DURATION</b>	12-week double-blind phase followed by open label study
<b>ENDPOINTS</b>	Cumulative number of new gadolinium (Gd)-enhancing T1 lesions, total number of Gd-enhancing T1 lesions, number of new or enlarging T2 lesions, change in phase rim lesions, PK/PD

Preliminary clinical trial design

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## Myostatin Platform

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Taldefgrobep Alfa for Obesity

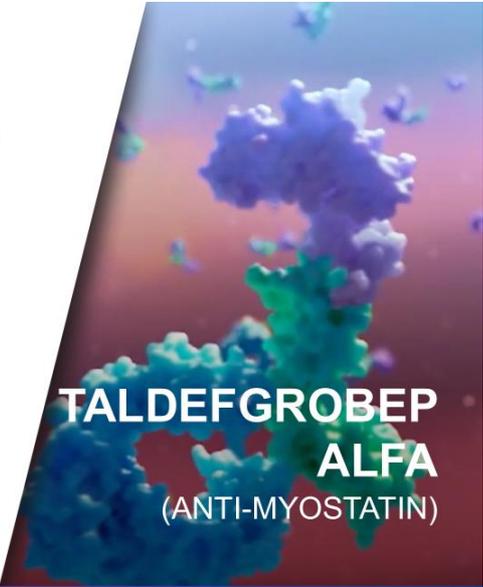
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### Differentiated Pharmacology Key to Optimizing Benefit in Overweight and Obesity

- Taldefgrobep-myostatin complex competitively inhibits multiple key ligands from signaling through Activin II receptors (ActRII)
- Unique MOA leads to direct beneficial effects on both muscle and adipose tissues
- Safety profile established in diverse clinical populations (N >700) well-suited to overweight and obesity indication

### Paradigm Shift to Improving Quality of Weight Loss

- Ability to lower total body weight by reducing fat mass while preserving lean muscle mass
- Use as monotherapy or in combination with Nutrient-Stimulated Hormone (NuSH)-based therapies, i.e., GLP-1 receptor agonists
- Weekly SC administration via off-the-shelf autoinjector, with potential for extended dosing intervals



**TALDEFGROBEP  
ALFA**  
(ANTI-MYOSTATIN)

**KEY  
UPDATE**

Phase 2 study in obesity planned for 2H 2025

## Optimal Management of Obesity Remains a Critical Unmet Medical Need

- By 2030, 1 billion people worldwide will be living with obesity, including 50% of American adults<sup>1</sup>
- Obesity is a disease of excess and/or abnormal adipose tissue, not excess mass
- Incretin mimetics have revolutionized management of obesity, but present liabilities
  - Up to 40% of total body weight loss is lean mass<sup>2</sup>
  - Gastrointestinal side effects<sup>3</sup>
  - Reduced bone mass<sup>4</sup>
  - Two-thirds stop GLP-1 therapy within 1 year<sup>5</sup>
  - Two-thirds of lost body weight returns within 1 year of stopping GLP-1 therapy<sup>5,6</sup>

1 <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2022>; Accessed 9-JAN-2025.  
 2. Wilding JPH et al, *N Engl J Med*. 2021;384(11):989-1002. 3. Wilding, et al, *Diabetes Obes Metab*. 2022; 24(8):1553-64. doi: 10.1111/dom.14725 4. Hansen MS, et al., *eClinicalMedicine*. 2024;72:102624 5. Scientific American. What happens when you quit Ozempic or Wegovy? APR 2024.  
<https://www.scientificamerican.com/article/you-quit-ozempic-or-wegovy-what-happens-next/> Accessed 9-JAN-2025. 6. Shiriza MV, Et al., *Diabetes Metab Syndr Obes*. 2017;10:403-12. 7. UpToDate. Overweight and obesity in adults: health consequences. <https://www.uptodate.com/contents/overweight-and-obesity-in-adults-health-consequences>. Accessed 9-JAN-2025.

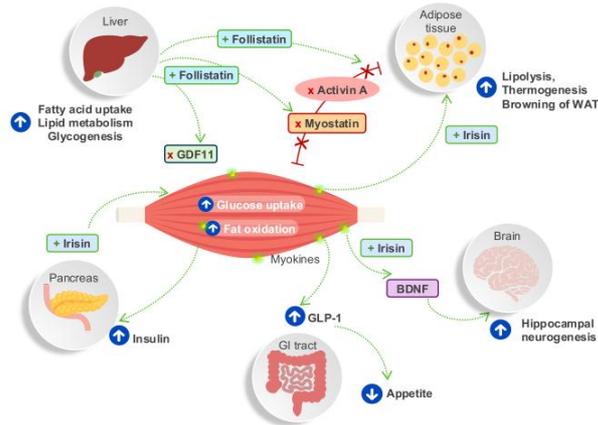


# Taldefgrobep Alfa: Novel MOA Optimizes Metabolic and Body Composition Change Important to those with Obesity

**LOW MUSCLE MASS** is associated with age-related cognitive decline<sup>2</sup> and increase in all-cause mortality<sup>3</sup>

**HIGH MUSCLE MASS** is associated with improvements in overall health and wellness

**MYOKINES** are important in the regulation of fat metabolism, inflammation, appetite, glucose control, bone density, and basal metabolic rate<sup>1</sup>



**HIGH ADIPOSE MASS** increases TGF- $\beta$  ligands, leads to insulin resistance, and is a multifactorial driver of the morbidity of obesity

**TALDEFGROBEP ALFA** targets TGF- $\beta$  ligands that signal through Activin II receptors including myostatin, GDF-11, and Activin A.<sup>3-4</sup> Inhibition of 3 ligands and ActRIIB optimizes muscle growth.<sup>5</sup>

1. Illustration adapted from Severinsen et al. *Endocr Rev.* 2020 Aug 1;41(4):594–609. 2. Daghlas et al. *BMJ Med.* 2023;2(1):e000354. 3. Lee et al. *Exp Biol Med.* 2018;243:1275-85. 4. Chen et al. *Life Metabolism.* 2024. 5. Latres, E., Mastaitis, J., Fury, W. et al. *Nat Comm* 8, 15153 (2017). MSTN, myostatin; GDF11, growth differentiation factor 11; BDNF, brain-derived neurotrophic factor.

KEY  
POINT

Taldefgrobep alfa inhibits negative regulators of skeletal muscle and adipose tissue improving body composition and resulting in metabolic changes important to overall health and wellness

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# Taldefgrobep Has Direct Effects on Muscle and Fat — Optimizing Quality of Weight Loss



**Taldefgrobep alfa**  
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**BINDS**

active myostatin (GDF-8), GDF-11

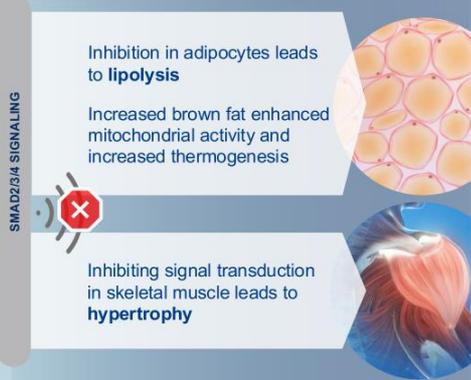
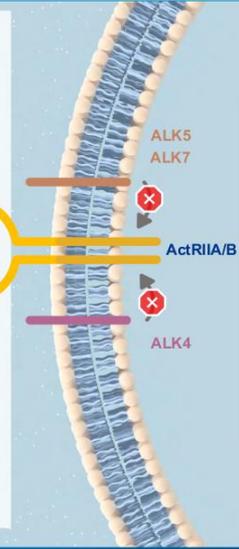
**FORMS COMPLEX**

that attaches to ActRIIA/B prevents ActRII binding (ALK4,5,7)

**INHIBITS**

ActRIIA/B signaling by key ligands including Activin A

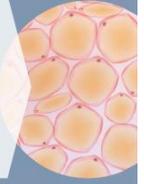
CYTOKINE INHIBITORS OF MUSCLE GROWTH THROUGH ActRIIB



Inhibition in adipocytes leads to **lipolysis**

Increased brown fat enhanced mitochondrial activity and increased thermogenesis

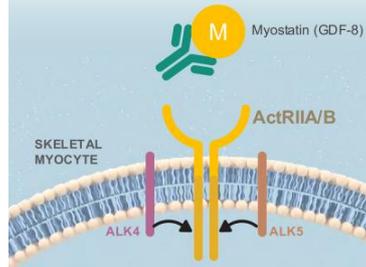
Inhibiting signal transduction in skeletal muscle leads to **hypertrophy**



## Taldefgrobep's Differentiated Approach Balances Efficacy and Safety

**Apitegromab (SRK439)/GYM329**  
Scholar Rock/Roche

**TARGETS** pro- and latent myostatin

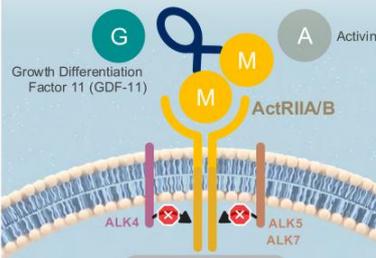


Targeting myostatin alone results in sub-optimal improvements in body composition and total body weight<sup>1</sup>

1. Fulham M, et al. ObesityWeek 2024. Poster 524.  
2. Garito, *Diabetes Obes Metab*. 2018; 3. Heymsfield, *JAMA Network Open*. 2021.

**Taldefgrobep Alfa**  
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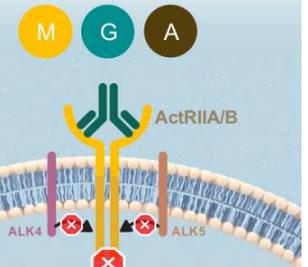
**BINDS** active myostatin (GDF-8), GDF-11  
**COMPLEX** attaches to ActRII  
**INHIBITS** ActRIIA/B signaling



ActRII signaling inhibits muscle growth and suppresses lipolysis

**Bimagrumab**  
Versanis-Lilly

**BLOCKS** only ActRIIB signaling (all ligands) with very high affinity



Very tight and extended ActRII binding is associated with poor tolerability (high rates of muscle complaints and diarrhea)<sup>2,3</sup>

# Taldefgrobep: Highly Favorable and Differentiated Profile Within the “Myostatin Pharmacologic Class”



## Pure Myostatin Agent

- Inhibits latent myostatin
- No direct ActRIIB receptor effects, so activity limited to PK of drug (limited PK/PD)
- Claims better safety due to selectivity
- Likely associated with decreased efficacy in muscle and adipose
- Requires IV infusion



## Dual Myostatin Clearance and Activin Receptor Inhibition

- Binds active myostatin (pM), GDF-11 (pM) and Activin A (nM)
- Superior muscle growth to myostatin inhibition alone
- Accesses Activin A pharmacology
- Long lived T-alfa/myostatin complex reversibly binds ActRIIA/B inhibiting receptor signal transduction
- Low rates of AEs
- Favorable SC dosing



## Activin Receptor Inhibitor

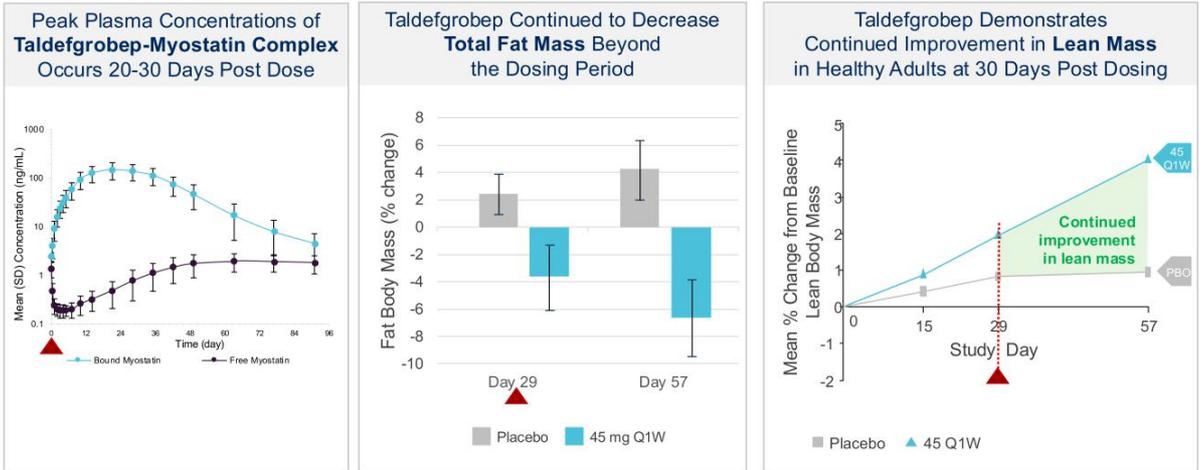
- Tight binding to and inhibition of ActRIIB receptors
- Superior muscle growth to myostatin inhibition alone
- Accesses Activin A pharmacology
- Long off-rate and tight binding results in **muscle spasms, fatigue, and diarrhea**
- Potent receptor inhibition results in lower FSH
- Requires IV infusion

AE, adverse event; FSH, follicle stimulating hormone; SC, subcutaneous; IV, intravenous; PK, pharmacokinetics; PD, pharmacodynamics.

**KEY  
POINT**

Taldefgrobep alfa potentially offers optimized efficacy, safety, and ease of use

# Taldefgrobep Improves Body Composition in Non-Obese Adults with Potential for Monthly Dosing in Obesity

Muntoni F, et al. *Neuro/ Ther.* 2024 Feb;13(1):183-219.

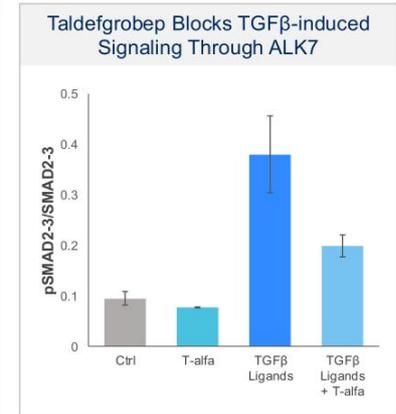
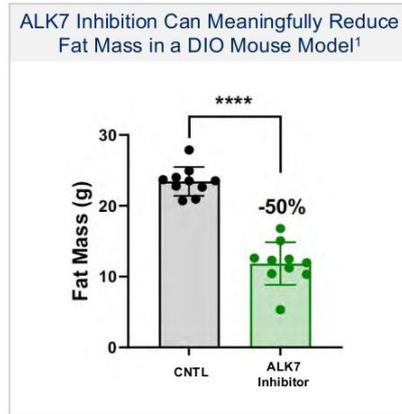
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 Last dose  
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## Taldefgrobep Stimulates Lipolysis and Decreases Fat Mass

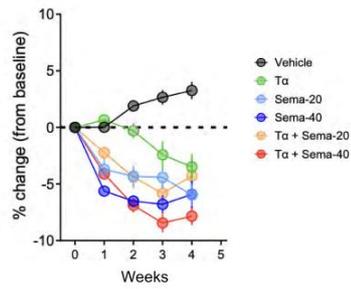
- ALK7 activation blunts  $\beta$ -adrenoreceptor-mediated lipolysis and lipid oxidation in people with obesity<sup>1</sup>
- Reduction in ALK7 signaling can reduce fat mass in preclinical models<sup>2</sup>
- Taldefgrobep complex blocks ALK7-mediated SMAD2/3 signaling in adipocytes leading to increased lipolysis and a reduction in fat mass



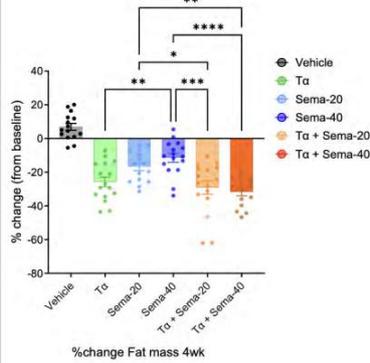
1. Guo. *Elife* 2014. 2. Ngai. *Keystone Symposia on Obesity and Adipose Tissue*, Poster, 2025

# Taldefgrobep: Shows Greater Effect in Combination With Semaglutide than Semaglutide Alone in DIO Mice

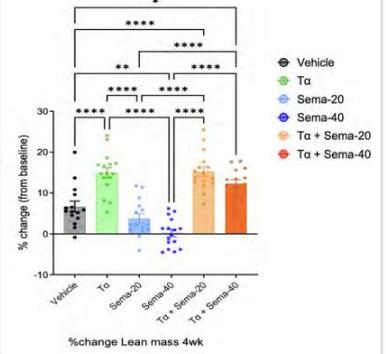
T-alfa Shows Weight Loss, and Combination with Semaglutide Shows **Higher Reduction in Body Weight** Than Semaglutide Alone



T-alfa and Combination Show **Greater Reduction in Fat Mass** Than Semaglutide Alone



T-alfa and Combination Show **Greater Increases in Lean Mass** Than Semaglutide Alone



Tα, taldefgrobep alfa; DIO, diet induced obesity.  
 \* <math>\le 0.05</math>, \*\* <math>\le 0.01</math>, \*\*\* <math>< 0.001</math> and \*\*\*\* <math>< 0.0001</math>.

## Taldefgrobep Monotherapy Offers Attractive Differentiation; but Also Potential for Combination With NuSH Therapies to Improve Quality of Weight Loss

### FURTHER REDUCE

- ✓ Total body weight
- ✓ Total body fat
- ✓ Visceral adipose tissue
- ✓ Subcutaneous adipose tissue
- ✓ Hepatic fat
- ✓ Intramuscular fat
- ✓ HbA1c
- ✓ BP

**Augment beneficial effects of NuSH therapies**

**Address limitations of NuSH therapies**

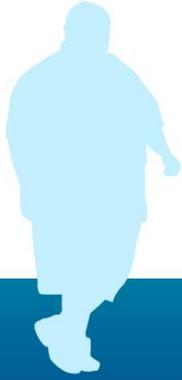
### MITIGATE AGAINST

- ✓ Excess loss of lean mass
- ✓ Excess loss of bone mass
- ✓ Rapid weight rebound following interruption of dosing with NuSH therapies



NuSH Therapies, Nutrient-stimulating hormone therapies.

## Populations That Can Benefit From Taldefgrobep + NuSH Combination



**People living with  
extreme obesity  
— BMI  $\geq$ 40**



**People living with  
overweight and obesity  
+ comorbid T2DM**

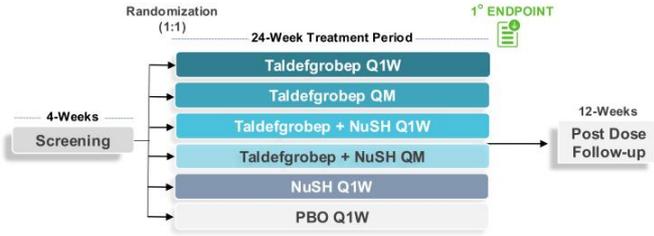


**Males living with  
overweight and  
obesity +/- T2DM**



**Older individuals**

# Taldefgrobep Phase 2 Combination Therapy Study in Overweight and Obesity



<b>DESIGN</b>	Randomized, double-blind, placebo-controlled dose-ranging trial
<b>POPULATION</b>	Male and female adults (18 – 75yo) living with overweight and obesity (BMI $\geq 27$ )
<b>SAMPLE SIZE</b>	Eligible participants randomized 1:1 (Sex [M/F] and BMI [ $<36$ , $\geq 36$ ])
<b>TREATMENT</b>	Taldefgrobep SC once-weekly or once-monthly +/- NuSH-based therapeutic vs PBO
<b>TREATMENT DURATION</b>	24-week double-blind treatment period followed by 12-week post dose follow-up
<b>ENDPOINTS</b>	<b>Primary Endpoint:</b> Change in Total Body Weight (TBW) <b>Secondary Endpoints:</b> Lean Mass, Fat Mass, anthropometric measures, bone density, lipids, glycemic control, BP, PROs; PK/PD; safety/tolerability

## Design provides insight into key questions

- Impact of taldefgrobep monotherapy on body composition, TBW, metabolic endpoints in representative population
- Ability of taldefgrobep to provide additional benefits on top of NuSH therapies alone
- Ability of taldefgrobep to mitigate against reductions in lean mass associated with NuSH therapies

Preliminary design

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## Taldefgrobep Alfa for Spinal Muscular Atrophy (SMA)

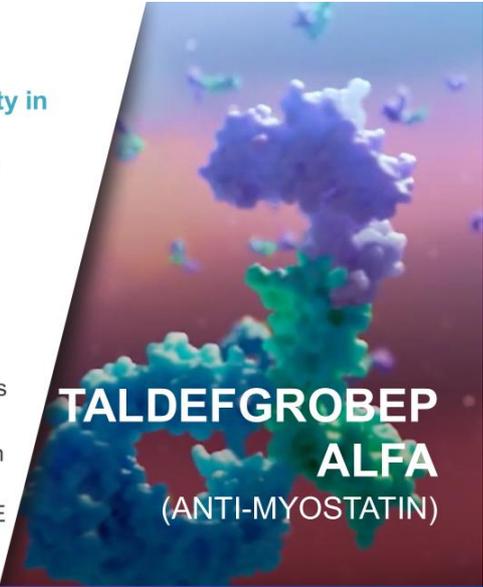
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### Differentiated Pharmacology Balancing Efficacy and Safety in SMA

- Taldefgrobep-myostatin complex competitively inhibits multiple key ligands from signaling through Activin II receptors (ActRII)
- Unique MOA leads to direct beneficial effects on both muscle and adipose tissues
- Safety profile established in diverse clinical populations (n >700)

### Phase 3 Data in Spinal Muscular Atrophy

- Clinically meaningful improvements in motor function at all timepoints
- Robust target engagement (myostatin reduction)
- Beneficial impacts on body composition parameters (fat mass, lean muscle mass and bone density)
- Well-tolerated with 97% of participants continuing into optional OLE



**TALDEFGROBEP  
ALFA**  
(ANTI-MYOSTATIN)

**KEY  
UPDATE**

FDA interaction planned to discuss SMA registrational path in 1H 2025

## High Unmet Need Still Remains For SMA

SOC treatments  
**target motor  
neurons**  
not muscle



Patients on SOC  
treatment continue  
to experience  
**significant  
muscle  
weakness,  
reduced  
functioning  
and decreased  
quality of life**<sup>1-7</sup>

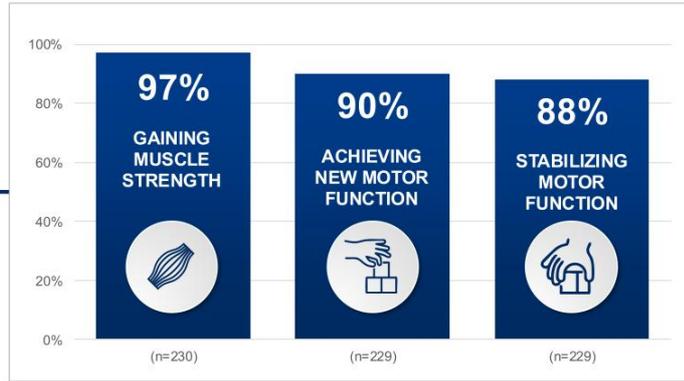
1. Mercuri E, et al. *Nat Rev Dis Primers*. 2022 Aug 4;8(1):52. 2. Day JW, et al. *BMC Pediatr*. 2022;22(1):632. 3. Darras BT, et al. *N Engl J Med*. 2021;385(5):427-435.  
4. Finkel RS, et al. *N Engl J Med*. 2017;377(18):1723-1732 5. Cure SMA. Accessed November 2024. <https://www.curesma.org/wp-content/uploads/2018/01/SMA-VoP-for-publication-1-22-2018.pdf>. 6. Darras BT, et al. *N Engl J Med*. 2021;385(5):427-435. 7. Finkel RS, et al. *N Engl J Med*. 2017;377(18):1723-1732.



**CALEB** Clinical trial  
Living with SMA participant on open  
label treatment

## 97% of Adults With SMA Hope New Therapies Will Help Them Gain Muscle Strength

“What are your most significant current unmet needs that you hope new therapies would address?”<sup>1</sup>



1. Cure SMA. Accessed November 2024. [https://www.curesma.org/wp-content/uploads/2024/06/9042024\\_State-of-SMA\\_vWeb.pdf](https://www.curesma.org/wp-content/uploads/2024/06/9042024_State-of-SMA_vWeb.pdf).

**KEY  
POINT**

Muscle-targeting therapy is needed on top of SOC treatment (SMN upregulation)

## Taldefgrobep Alfa: Well-Characterized Clinical Profile



### CLINICAL DEVELOPMENT

**>700 trial participants treated (adults and children) across 6 studies**

- Completed: 3 Phase 1 trials (SAD/MAD, SC BA, autoinjector BE); 1 Phase 1b/2 trial in DMD and 1 Phase 2/3 trial in DMD
- Ongoing: Phase 3 trial in SMA



### PHARMACOLOGY

**Demonstrated target engagement and increased muscle mass**

- Explored broad range of doses (4 mg to 180 mg SC QW) for up to 120 weeks of repeat dosing
- Demonstrated target engagement with dose-related free myostatin suppression
- Noted accumulation of drug-myostatin complex with sustained pharmacological activity beyond dosing period in healthy adults
- Demonstrated increased muscle in healthy adults, DMD and SMA



### SAFETY

**Safe and well-tolerated to date with differentiated profile**

- Low rates of SAEs, and few AEs leading to discontinuation
- Does not have AEs commonly reported in other drugs in the class (e.g., GI-related and muscle-related side effects)

## Taldefgrobep Alfa Achieved Robust Target Engagement

Free Myostatin Mean ng/mL, (SD)			
	Baseline	Week 12	Week 48
<b>Taldefgrobep alfa</b>	0.233 (0.118)	undetectable	undetectable
<b>Placebo</b>	0.259 (0.147)	0.267 (0.133)	0.255 (0.112)

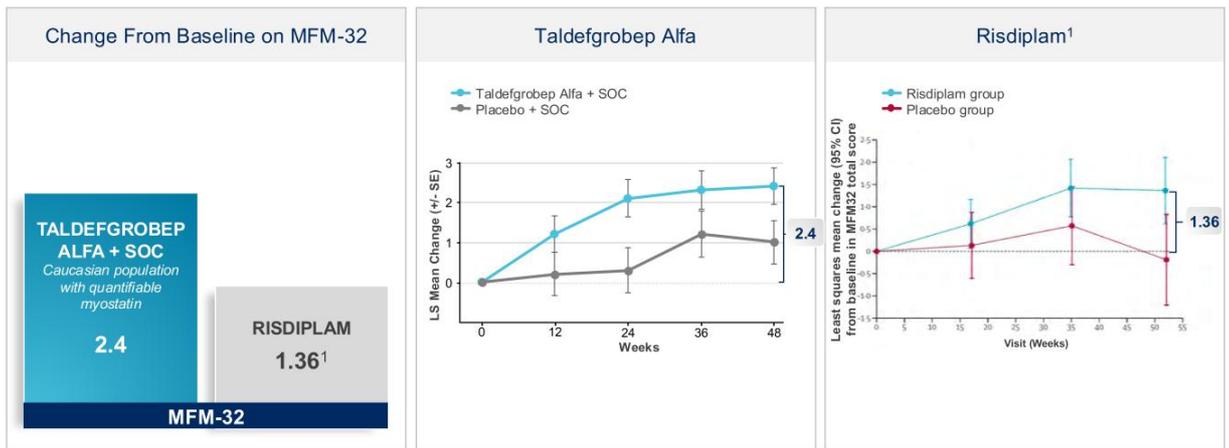
Myostatin measured by commercial ELISA kit with BLQ < 0.125 ng/mL.

**One third of taldefgrobep alfa participants had undetectable myostatin at baseline (pre-treatment)**

**KEY  
POINT**

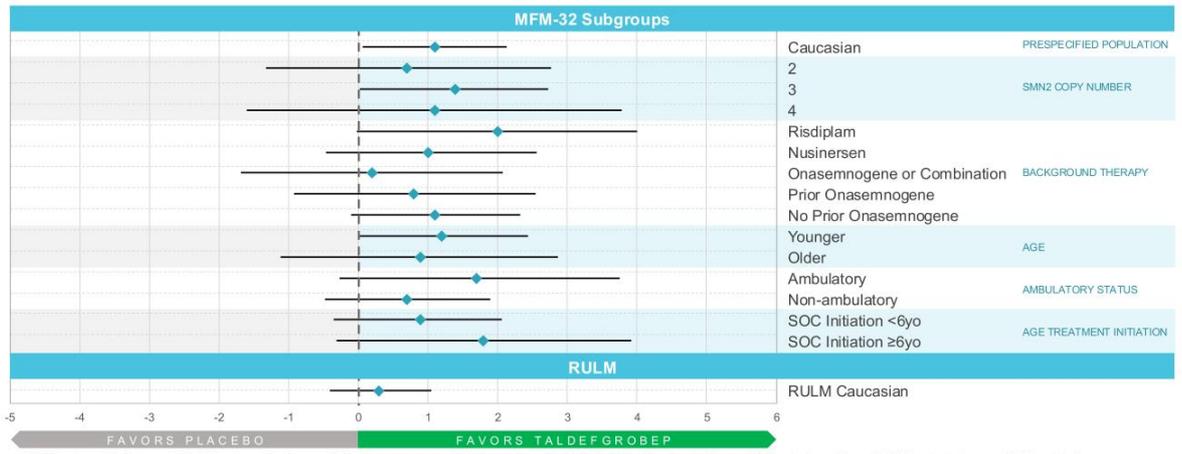
Taldefgrobep alfa reduced free myostatin levels below detection in myostatin-positive participants

# Taldefgrobep Alfa Treatment Effect on MFM-32 Is Additive to SOC



LS, least squares; MFM-32, 32-Item Motor Function Measure; SE, standard error; SOC, standard of care.  
 1. Mercuri E, et al. *Lancet Neurol*. 2022 Jan 21(1):42-52

# Treatment Difference Favors Taldefgrobep Alfa in Caucasian Population: MFM-32 Subgroups and RULM at Week 48



MFM-32 maximum attainable score: 100, RULM maximum attainable score: 37. All subgroups were prespecified in the overall population. MFM-32, 32-item Motor Function Measure; RULM, revised upper limb module; SMN, survival motor neuron; SOC, standard of care.

KEY  
POINT

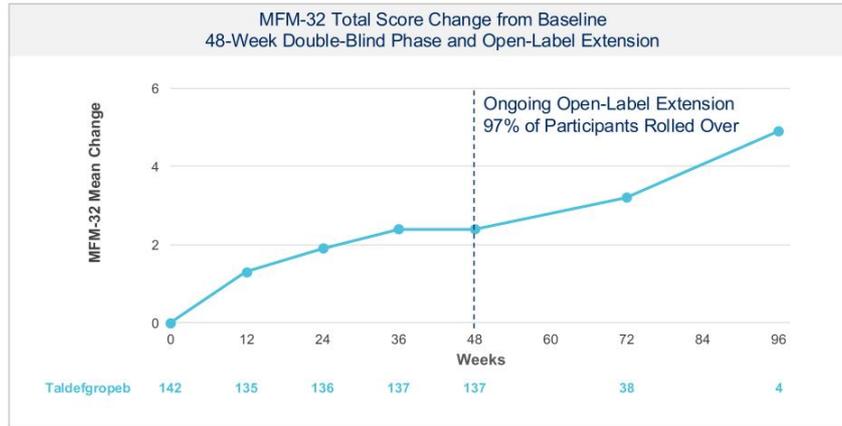
Results favored taldefgrobep alfa on the primary outcome in participant groups not enrolled in other studies

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# Taldefgrobep Alfa Clinically Meaningful Treatment Effect Continues to Increase After 1 Year of Treatment in Overall Population

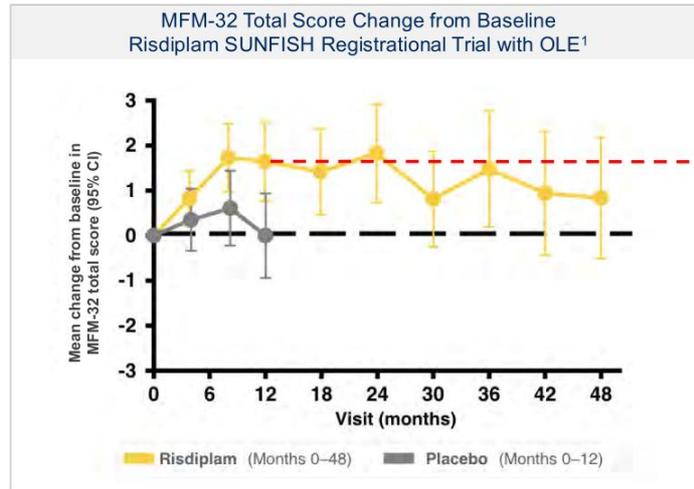
TALDEFGROBEP



**KEY  
POINT**

Supports treatment benefit in taldefgrobep alfa-treated participants vs expected MFM-32 trajectory

## MFM-32 Trajectory Expected to Decline on Stable SOC Treatment



MFM-32, 32-Item Motor Function Measure; CI, confidence interval; SOC, standard of care; OLE, open-label extension.  
 1. L. Servais, et al. Presented at: AAN; April 22-27, 2023; Boston, MA.

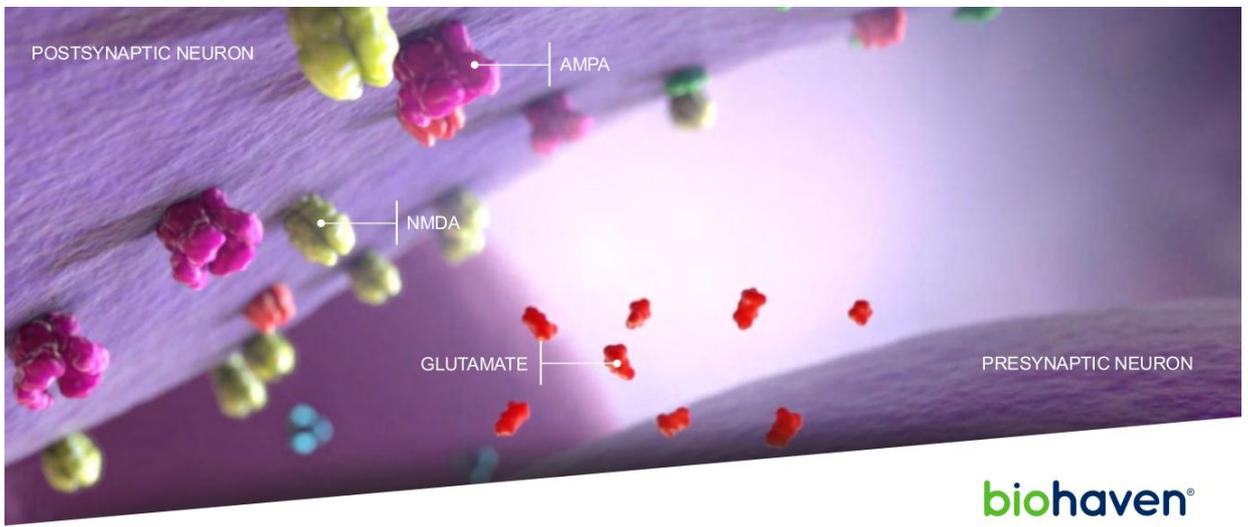
## Taldefgrobep Alfa Safe and Well-Tolerated in Phase 3 SMA Study: TEAEs Reported in $\geq 10\%$ of Participants Overall During DB Phase

	Placebo (n=73)	Taldefgrobep Alfa (n=143)	Overall (n=216)
	Participants with Event: n (%)	Participants with Event: n (%)	Participants with Event: n (%)
Upper respiratory tract infection	21 (28.8)	37 (25.9)	58 (26.9)
Pyrexia	21 (28.8)	27 (18.9)	48 (22.2)
Nasopharyngitis	19 (26.0)	23 (16.1)	42 (19.4)
Cough	9 (12.3)	23 (16.1)	32 (14.8)
Vomiting	9 (12.3)	22 (15.4)	31 (14.4)
Injection site erythema	4 (5.5)	26 (18.2)	30 (13.9)
Headache	9 (12.3)	20 (14.0)	29 (13.4)

DB, double-blind; SAE, serious adverse event; TEAE, treatment emergent adverse event.

### KEY POINTS

- All SAEs judged not related to study drug
- Low rate of TEAEs leading to discontinuation: 4 participants on taldefgrobep (2.8%); 1 on placebo (1.4%)



## Glutamate

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#### Significant Unmet Need in SCA With No Available Treatment

- Rare, relentlessly progressive, inherited neurodegenerative disease
- ~15,000 patients in US

#### US Priority Review of NDA With FDA Is Underway

- Completed mid-cycle review and inspections of HQ and clinical trial sites
- Preparing for Advisory Committee and late-cycle meetings
- PDUFA date 2H 2025

#### Efficacy and Safety Demonstrated Over 8 Years

- Study 206-RWE met prespecified primary endpoint (f-SARA at Year 3) in all SCA genotypes
- Additional confirmatory evidence from Study 206-RWE, Study 206 and Study 201

#### Biohaven Will Be Ready to Serve Patients Upon Anticipated Approval

- EAP currently expanding across multiple sites in the US due to patient demand
- Preparing for US commercial launch in 2H 2025 in event of approval



**TRORILUZOLE**  
GLUTAMATE  
MODULATOR

**BREAKING  
NEWS**

Troriluzole US NDA currently under priority review for SCA — 2H 2025

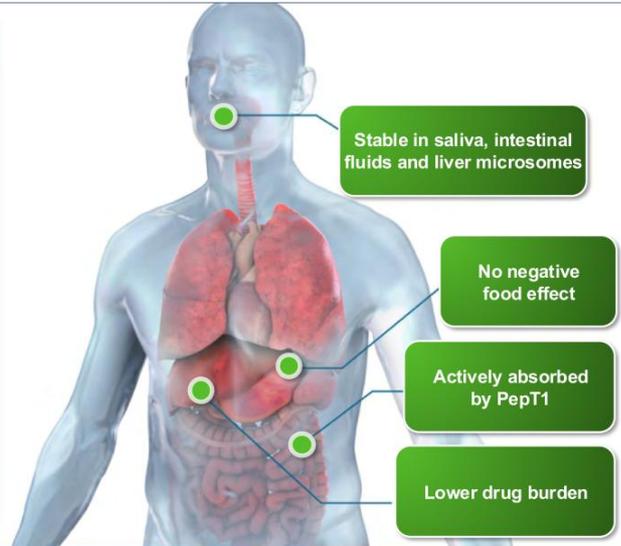
# Troriluzole Was Rationally Designed to Optimize Therapy

**TRORILUZOLE**

**Unique Properties**

- Third Generation Prodrug Selected from > 300 Synthesized Prodrug Candidates
- Molecular Weight 419.4 g/mol
- Molecular Formula  $C_{16}H_{19}F_3N_3O_2S \cdot HCl$

- ✓ Improved absorption
- ✓ Reduced drug burden
- ✓ Favorable safety profile
- ✓ Enhanced bioavailability
- ✓ Reduced first pass metabolism
- ✓ Once-daily dosing



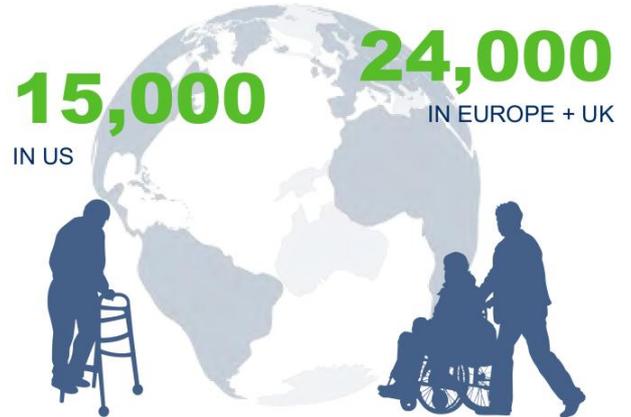
PepT1, peptide transporter 1.

## SCA: Rare Progressively Debilitating and Fatal Neurodegenerative Disorder with No Approved Treatment



- Autosomal dominant, progressive, neurodegenerative disease with multiple genotypes<sup>1-3</sup>
- Onset in early adulthood with symptoms leading to severe disability and premature death<sup>3</sup>
- High unmet need and no approved therapies<sup>1,2</sup>

### SCA Prevalence<sup>4</sup>



## f-SARA: Neurologist-Assessed Scale that Tracks SCA Disease Progression

- Measures 4 core functional items that are clinically meaningful and reflect hallmark symptoms of SCA5
- Individual items rated 0–4 with total score range 0–16
- Generally increases (worsens) 0.5 points annually
- Developed with FDA input
- Psychometric and qualitative validation performed according to FDA guidance<sup>5,6</sup>



**KEY  
POINT**

f-SARA is an approvable endpoint in SCA

# Troriluzole Restores Glutamate Homeostasis and Delays Disease Progression Across SCA Genotypes



## Strong Mechanistic Rationale

Preclinical and clinical evidence for role of glutamate in SCA



## Clinically Meaningful Effect on f-SARA

Clear evidence for troriluzole benefit in SCA



## Impact on Disease Progression

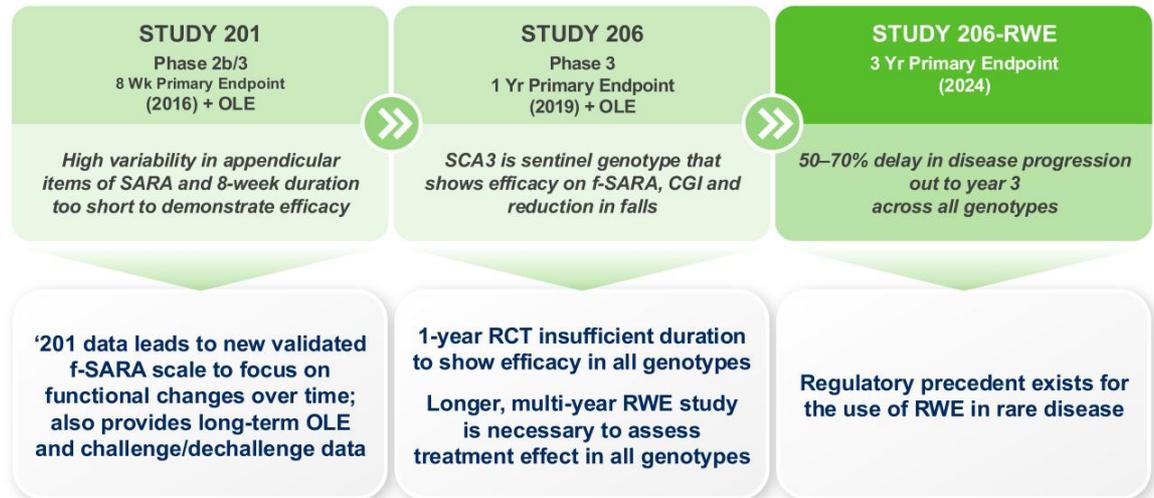
Observed across the 8-year SCA development program



## Reduction in Falls

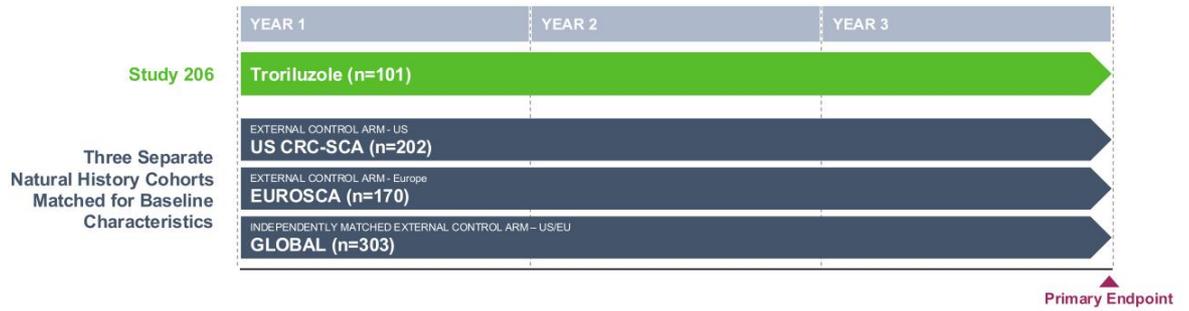
Falling is cardinal feature of SCAs leading to injury and reduced QoL

## SCA is Slowly Progressive Disease with Multiple Genotypes: Requires Multi-Year Follow-up to Assess Efficacy Across Genotypes



# RWE Study Was Designed With FDA Input & Following RWE Guidance

## 3-year real-world evidence protocol with external control using propensity score matching



**PRIMARY ENDPOINT**

f-SARA Change from baseline at 3 years in troriluzole-treated subjects vs untreated subjects from US Natural History control (CRC-SCA)

**SECONDARY ENDPOINTS**

**f-SARA Change from Baseline:**

- at 2- and 1-years vs US Natural History external control (CRC-SCA)
- at 3-, 2-, and 1-years vs EU Natural History external control (EUROSCA)
- at 3-, 2-, and 1-years vs Global, US and EU Natural History external control (CRC-SCA and EUROSCA)

## RWE Study Designed With FDA Feedback to Reduce Bias

Biohaven Proposal	FDA Feedback	BHV4157-206-RWE Protocol
Analyze new data from subjects completing 3-years of treatment	Follow Industry Guidance for RWE*	 Regulatory precedent for NDA approval based on RWE and external control for analysis of 3-year endpoint. Inclusion of new 3-year completers nearly doubles the sample size and thus increases power and precision as these data were not previously available
Submit SAP for FDA review	Submit both Protocol and SAP for FDA review prior to database lock	 Submitted Protocol and SAP to FDA with prespecified endpoints and analysis plan based on FDA input ahead of database lock; <b>Biohaven adopted all feedback proposed by the FDA</b>
Use composite scale as primary outcome measure	Use f-SARA as primary outcome measure	 f-SARA used as primary outcome measure; a reliable and validated scale to measure clinically meaningful change in function in SCA; designed with FDA input that is objective and minimizes effort dependence
Use global SCA Natural History cohorts as external control	Use US SCA Natural History cohort as external control for primary analysis	 Minimizes potential for bias by ensuring the Biohaven trial & US SCA Natural History study conducted by same sites/investigators, evaluating similar scales, over similar time period, with same population, on same standard of care treatment
Use MAIC analysis as primary	Use Propensity Score Matching (PSM) for primary analysis	 Minimizes potential for confounding bias by balancing baseline characteristics between treatment group and external control; Used in other NDAs leveraging RWE**
Genetic risk factors not included in matching	Match populations based on trinucleotide repeat length for primary analysis	 Minimizes potential for bias by further matching treatment group and external control based on additional genetic factors associated with disease burden

\*Guidance for Industry Considerations for the Use of Real-World Data and Real-World Evidence to Support Regulatory Decision Making for Drug and Biological Products <https://www.fda.gov/media/171667/download>

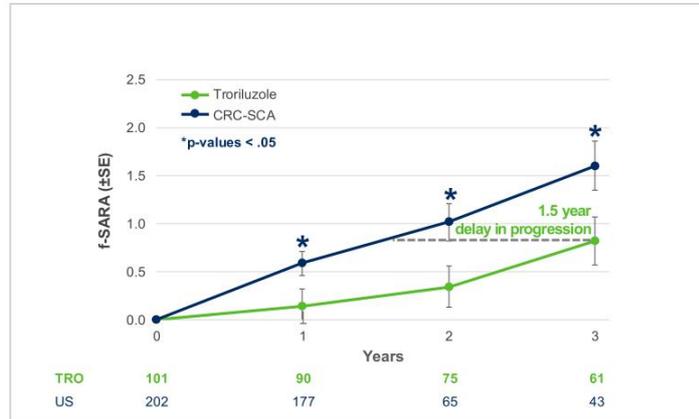
\*\*Lynch DR, et. al. Propensity matched comparison of omaveloxolone treatment to Friedreich ataxia natural history data. Ann Clin Transl Neurol. 2024 Jan;11(1):4-16

## Demographic and Baseline Characteristics

	BHV4157-206	CRC-SCA	EUROSCA
n	105	446	358
Age (years), n	105	434	358
mean (SD)	47.6 (13.1)	51.6 (13.8)	47.3 (12.7)
median (range)	49.0 (18, 73)	52.0 (0, 89)	47 (18, 84)
Sex, n	105	446	358
Male (%)	47 (45)	200 (45)	171 (48)
Female (%)	58 (55)	246 (55)	187 (52)
Age at symptom onset (years)			
mean (SD)	37.7 (12.4)	41.2 (13.9)	36.7 (11.8)
median (range)	38 (10, 71)	41 (0, 76)	37 (7, 76)
Genotype (%)			
SCA1	15 (14)	66 (15)	102 (29)
SCA2	31 (30)	94 (21)	141 (39)
SCA3	41 (39)	153 (34)	115 (32)
SCA6	6 (6)	95 (21)	0
SCA7	5 (5)	5 (1)	0
SCA8	3 (3)	19 (4)	0
SCA10	3 (3)	6 (1)	0
Multiple	1 (1)	3 (1)	0
f-SARA			
mean (SD)	4.95 (1.6)	3.97 (3.5)	5.03 (4.1)
median (range)	4.00 (2,10)	3.00 (0,16)	4.00 (0,16)

Full Analysis Set

# Trotiluzole vs Matched US Natural History External Control Shows Slowing of Disease Progression out to Year 3



CRC-SCA, Clinical Research Consortium for SCA; EUROSACA, European registry of SCA; f-SARA, Functional Scale for the Assessment and Rating of Ataxia; LSM, least squares mean; PSM, Propensity Score Matching



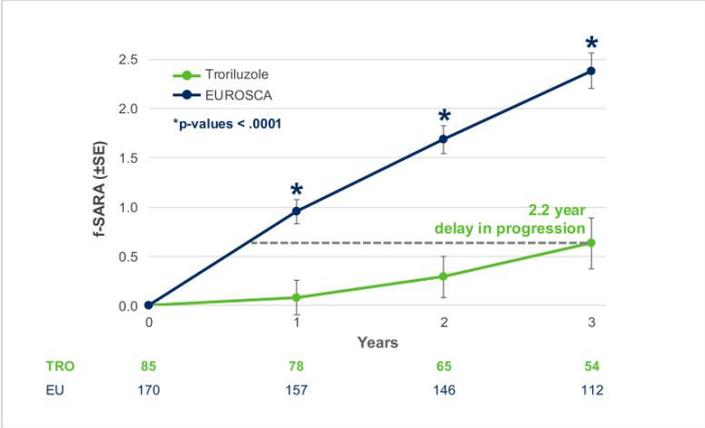
## Trotiluzole reduced SCA disease progression by 50%



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# Troriluzole vs Independent Matched EU Natural History

## External Control Shows Slowing of Disease Progression out to Year 3

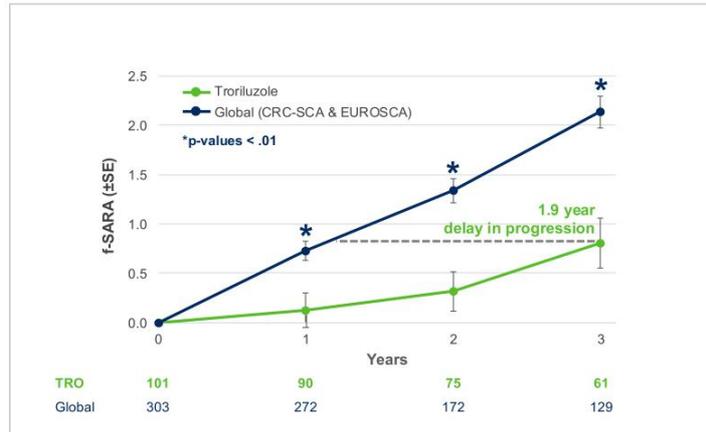


CRC-SCA, Clinical Research Consortium for SCA; EUROSCA, European registry of SCA; f-SARA, Functional Scale for the Assessment and Rating of Ataxia; LSM, least squares mean; PSM, Propensity Score Matching

**KEY POINT** Troriluzole reduced SCA disease progression by 70%

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# Troriluzole vs Matched Global Natural History External Control Shows Slowing of Disease Progression out to Year 3



CRC-SCA, Clinical Research Consortium for SCA; EUROSCA, European registry of SCA; f-SARA, Functional Scale for the Assessment and Rating of Ataxia; LSM, least squares mean; PSM, Propensity Score Matching



## Troriluzole reduced SCA disease progression by 60%



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# Troriluzole Met 9 Prespecified Consecutive Hierarchical Endpoints Demonstrating Robust and Durable Treatment Benefit Over 3 Years

		f-SARA at Year	p-value
	<b>US External Control (CRC-SCA)</b>	3	<0.05
		2	<0.05
		1	<0.05
	<b>Europe External Control (EUROSCA)</b>	3	<0.0001
		2	<0.0001
		1	<0.0001
	<b>Global External Control (CRC+EURO)</b>	3	<0.0001
		2	<0.0001
		1	<0.003

CRC-SCA, Clinical Research Consortium for SCA; EUROSCA, European registry of SCA; f-SARA, Functional Scale for the Assessment and Rating of Ataxia; Global, CRC-SCA & EUROSCA.

## Untreated SCA Patients Have Higher Likelihood of Significant Worsening

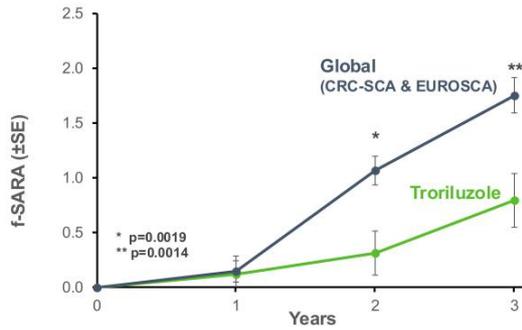
	Odds Ratio of f-SARA $\geq$ 2-Point Worsening in Untreated	p-value
US External Control vs Troriluzole*	2.4	0.0359
EU External Control vs Troriluzole	6.1	<0.0001
Global External Control vs Troriluzole	4.1	<0.0001

\*Prespecified

**KEY  
POINT**

f-SARA  $\geq$ 2-point change at 3 years represents a clearly defined worsening of SCA disease

## Anchoring Analysis Confirms Need for 3 Year Study to Overcome Heterogeneity in SCA Progression Patterns



Troriluzole (n)	101	90	75	61
Global (n)	273	273	162	129

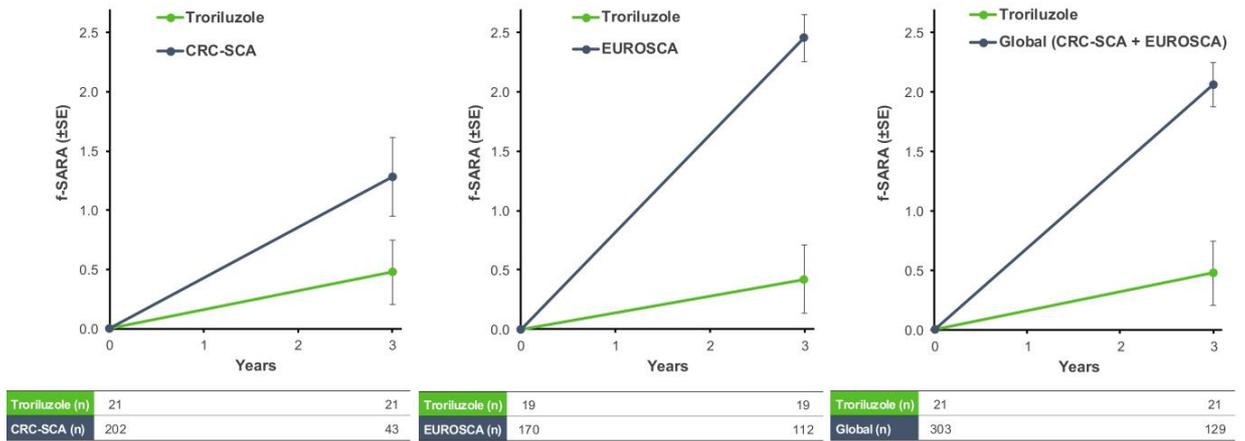
- External control was anchored to Study 206 placebo progression rate over 1-year using PSM
- Anchored analysis shows efficacy at Years 2 and 3 consistent with primary results from Study 206-RWE
- Addresses any potential bias introduced by differences in progression rates between RWE and Study 206 patients
- Supports reliability and interpretability of using external control arm in assessing troriluzole

CRC-SCA, Clinical Research Consortium for SCA; EUROSCA, European registry of SCA; f-SARA, Functional Scale for the Assessment and Rating of Ataxia; PSM, Propensity Score Matching.

**KEY  
POINT**

Anchoring analysis shows RWE findings are independent and highly consistent with 1-year RCT (Study 206) and closely reflects potential results of a 3 Year RCT study

## New Data From Subjects Completing 3 Years of Treatment Was Consistent With Primary Results in Each External Control Arm



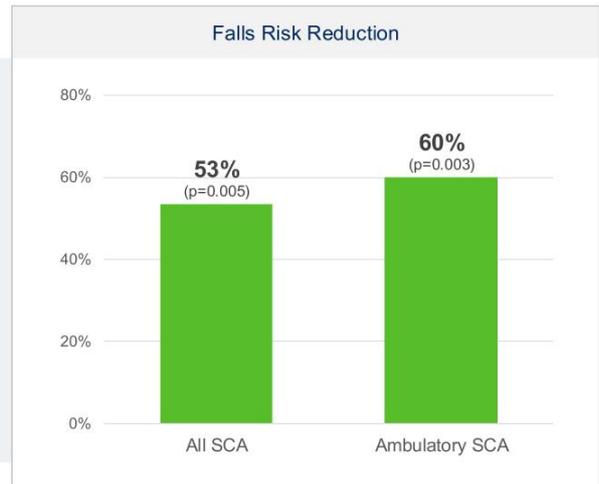
CRC-SCA, Clinical Research Consortium for SCA; EUROSCA, European registry of SCA; f-SARA, Functional Scale for the Assessment and Rating of Ataxia.

## Troriluzole Substantially Reduced Fall Risk in Double-Blind Phase



### Burden of Falls in SCA<sup>9-10</sup>

- Most SCA patients (74–84%) report falling in the preceding 12 months
- Falling is associated with a high rate of injury (74%)
- Frequent fallers report more fall-related injuries
- Fall frequency decreases when patients become wheelchair dependent or immobile

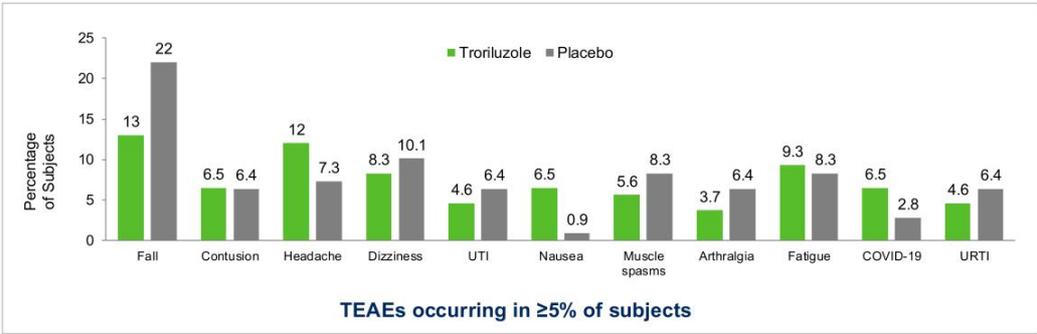


\* Study BHV4157-206 double-blind phase results; Falls were captured in Study BHV4157-206 as adverse events if reported as "worsening falls" or if the fall resulted in an injury. For the analysis, a generalized linear model was fit using a Poisson family model with a log link function.

\*\* Ambulatory SCA is defined as All SCA subjects who could ambulate without constant assistance (scoring 1 or 2 on the gait item of the f-SARA) at baseline

# Troriluzole Was Well-Tolerated in Clinical Trials

	Troriluzole N=108	Placebo N=109
Serious TEAE	6 (5.6)	8 (7.3)
Severe TEAE	3 (2.8)	8 (7.3)
TEAE Leading to Discontinuation	5 (4.6)	5 (4.6)



Study BHV4157-206 double-blind phase results; falls were captured as adverse events if reported as "worsening falls" or if the fall resulted in an injury.

# Troriluzole Demonstrates Compelling Treatment Effect and Meaningful Delay in SCA Disease Progression

## Clear Impact on Disease Progression



- 50–70% slowing of disease progression, representing 1.5–2.2 years delay in disease progression over 3-year RWE Study
- Multiple sensitivity analyses confirm reliability and interpretability of study results

## Consistent Treatment Effect Over Three Studies



- Efficacy data from Studies 201, 206 and RWE
- 53% risk reduction in falls

## Strong Safety/Tolerability Profile of Troriluzole



- Well-characterized safety profile of troriluzole assures a positive benefit-risk profile for SCA
- Studied in over 2,000 subjects across 8 years

**KEY  
POINT**

NDA under Priority Review with anticipated approval and commercialization in 4Q 2025

## SCA Represents a Significant Commercial Opportunity



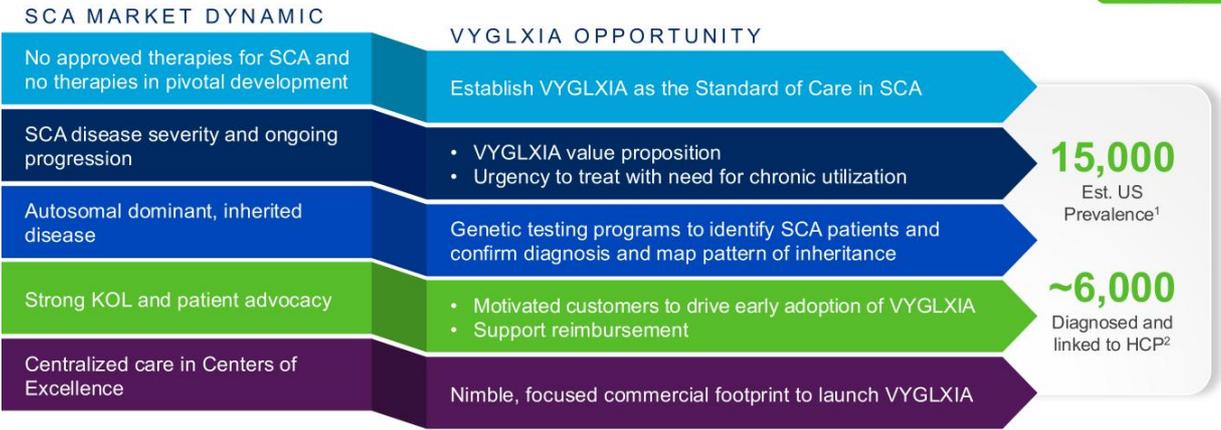
- 6,000 diagnosed US patients
- No currently approved SCA treatments
- Availability of genetic testing and advent of approved treatment will facilitate diagnosis
- Engaged, connected SCA patient community
- Strong patient advocacy support
- KOLs, HCPs and key centers treating SCA have been identified

1. Ruano L, Melo C, Silva MC, Coutinho P. The global epidemiology of hereditary ataxia and spastic paraplegia: a systematic review of prevalence studies. *Neuroepidemiology*. 2014;42(3):174-83. 2. National Ataxia Foundation Website: <https://www.ataxia.org/what-is-ataxia/>, <https://www.ataxia.org/neurologists-and-specialty-clinics/>, <https://www.ataxia.org/orc-sca/>. 3. Source: Patients filtered from LAAD claims data between April 2016 – Mar. 2021 purchased from IQVIA.

4. Data on File based on claims data purchased from IQVIA.

# Existing SCA Market Dynamics Creates Opportunities for VYGLXIA® and Biohaven

VYGLXIA®



1. Ruano L, et al. *Neuroepidemiology*, 2014;42(3):174-83. 2. Data on File based on claims data purchased from IQVIA.

**KEY POINT**

- VYGLXIA® name conditionally accepted by the FDA pending product approval
- VYGLXIA® would be the first and only approved treatment for SCA

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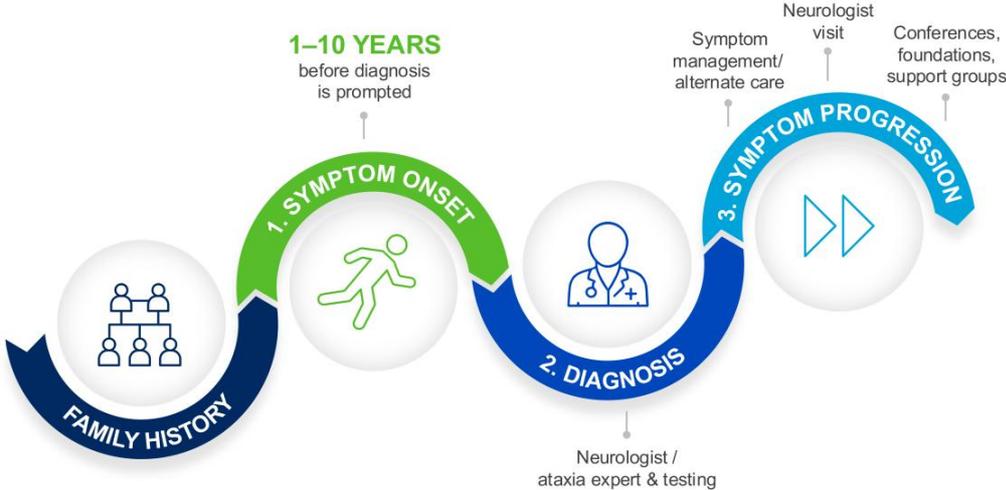
**SCA Launch Priorities**

- 01** Identify patients, drive early diagnosis
- 02** Establish VYGLXIA® as SOC in SCA
- 03** Create access and reimbursement
- 04** Ensure ongoing treatment

**KEY POINT** SCA launch relies on identifying patients and driving diagnosis

# Driving Patient Identification and Diagnosis Are Critical to Launch Success and Long-Term Growth

VYGLXIA®



Source: SCA Patient Journey Market Research. Conducted at NAF 2017 by Burke Institute. Updated: April 5, 2017

# SCA Centralized Treatment Allows for Targeted and Efficient Commercialization Plan

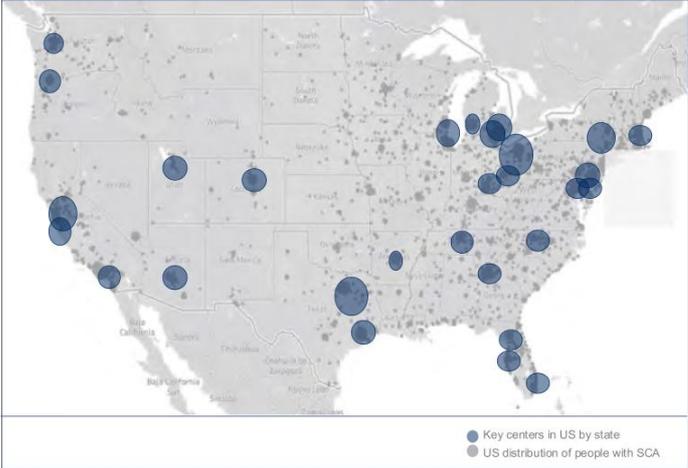
VYGLXIA®

### SCA treatment at key centers

121 KOLs, 22 NAF Ataxia Centers of Excellence and 73 additional Movement Disorder and Ataxia Centers have been identified and manage many patients<sup>1,2</sup>

### Experienced, efficient commercial team

- Proven track record in successful rare disease launches
- Planning to deploy dedicated SCA FTEs to drive a focused and rapid US launch



1. National Ataxia Foundation. Accessed May 12, 2025. <https://www.ataxia.org/neurologists-and-specialty-clinics/>. 2. Data on File based on claims data purchased from IQVIA.

## VYGLXIA® in SCA Represents a Significant Commercial Opportunity

### Readily identifiable patients will drive initial uptake



- High-volume ataxia experts and people with SCA interested or involved in clinical research programs/registries
- People already diagnosed with SCA and their families

### Biohaven's HUB will facilitate access to VYGLXIA®



- HUB will be a central point of contact for the SCA community
- Strive to ensure all SCA patients will have access to VYGLXIA®

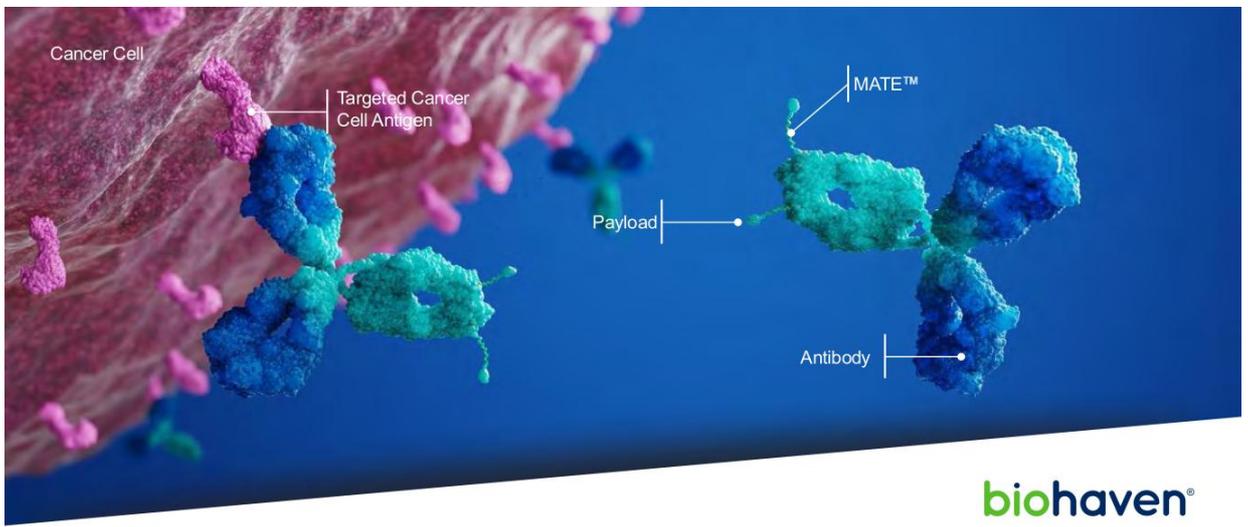
### Patient ID and early diagnosis fuel long-term growth



- Focused initiatives that drive patient ID and early diagnosis strategy are critical
- Targeted commercialization plan includes experienced rare disease leaders



If approved, the Biohaven team will be prepared to serve people living with SCA



## Oncology: Next-Generation ADCs

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# Biohaven's Innovative Technologies Modernizing Next-Gen ADCs

ONCOLOGY

**NOVEL AND BISPECIFIC mAbs**  
Validated and emerging targets

**TOPOIX PROPRIETARY PAYLOAD**  
PD-1/PD-L1 synergy  
Broad target exclusivity

**MODERN ADC TECHNOLOGY, FLEXIBLE PLATFORM**

- ✓ Site-specific
- ✓ Irreversible
- ✓ Single-Step
- ✓ Native mAbs
- ✓ Multiple payload class

**STRATEGIC COLLABORATIONS**

**Merus**

**REGENERON**

**Yale**

**GeneQuantum Healthcare**  
启德医药

**EXPANDING CLINICAL STAGE ASSETS**

**BHV-1510** (Trop2 Topolx)  
Phase 1  
mono and anti-PD-1 combo

**BHV-1530** (FGFR3 Topolx)  
Phase 1

**BHV-1500** (CD30 MMAE)  
IND planned 2H 2026

**Merus**  
(undisclosed)

### **BHV-1510 Is a Highly Differentiated Trop2 ADC**

- Site-specific, highly stable conjugation-linker
- Topolx payload ideally positions for fast-to-market strategy with anti-PD-1 combo
- Remains competitive as fast-follower

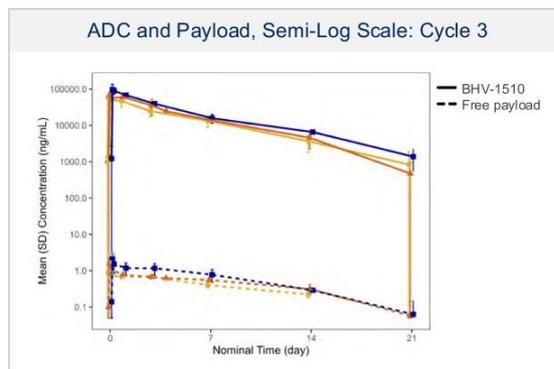
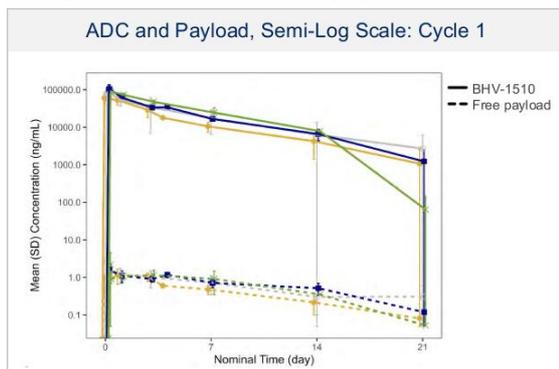
### **Emerging Clinical Data Shows Predicted Profile and Potential of Proprietary Topolx Payload**

- Clinical activity demonstrated as monotherapy and in combination with anti-PD-1 cemiplimab
- No interstitial lung disease (ILD) with Topolx observed in early cohorts
- Target exclusivity of Topolx payload for up to 18 ADCs



# BHV-1510: Favorable PK and Safety Profile With Very Low Free Payload

- Mean serum exposure of BHV-1510 increased with increasing doses
- Very low levels of serum free payload, demonstrating high ADC stability



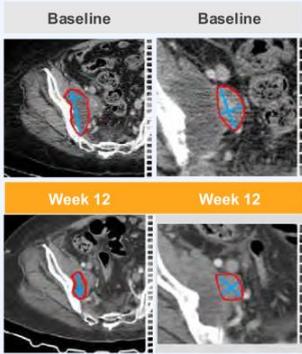
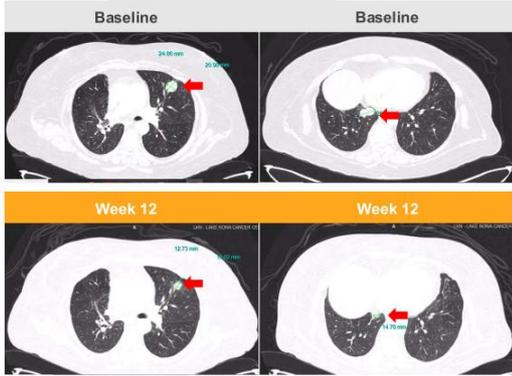
**KEY POINT**

High ADC stability with payload to ADC ratio <1%

# Monotherapy Shows PRs in Patients Failing Standard Therapies

### Case: 72 y/o with EGFRwt NSCLC

Prior therapies include carboplatin and paclitaxel, pembrolizumab then pemetrexed and carboplatin



### Case: 60 y/o female with endometrial cancer

Prior therapies included dostarlimab, carboplatin and paclitaxel

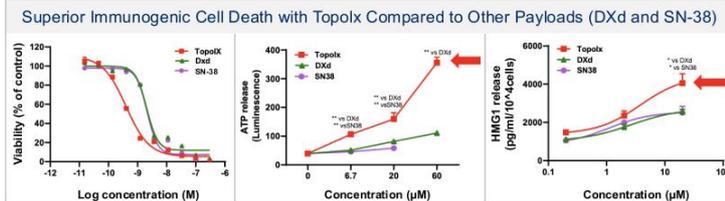
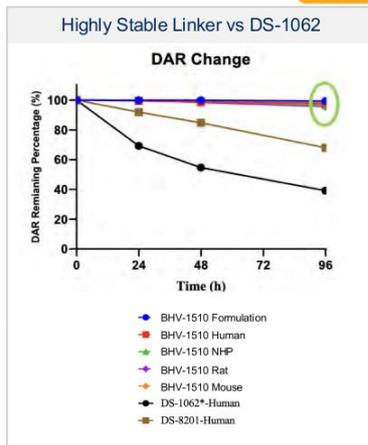
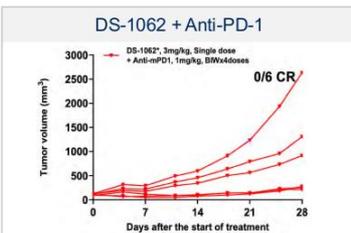
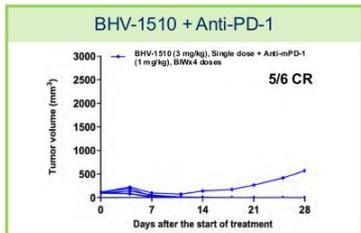


## BHV-1510 Combination With Anti-PD-1

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# BHV-1510+Anti-PD-1: Syngeneic Models Suggest Superior to DS-1062

ONCOLOGY



DS-1062, datopotamab deruxtecan, AACR 2023 Annual Meeting, abstract 1549

**KEY POINTS**

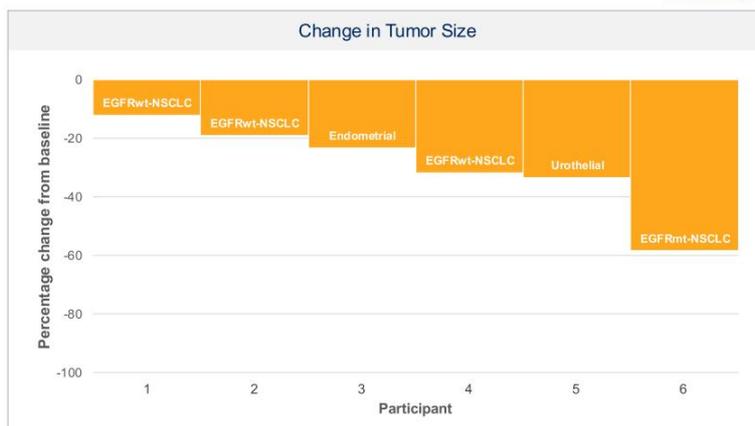
- Preclinical profile of BHV-1510 positions it for superiority in ADC therapy with anti-PD-1
- Landscape open for Trop2 combinations with safer more efficacious ADC

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# BHV-1510 + Cemiplimab: Preliminary Activity Observed With Tumor Reduction Seen in First 6 Patients Treated

ONCOLOGY

- Encouraging preliminary efficacy with tumor reductions seen on first scan for all patients
- Partial responses starting at lowest dose tested
- Clinical activity demonstrated in patients failing standard of care therapies. Majority with prior anti PD1/PL1 agents
- Responses seen in patients with brain metastasis
- Combination well tolerated; no DLTs or ILD in initial cohorts



EGFR: Epidermal Growth Factor Receptor, WT: Wild type, MT: Mutant, NSCLC: Non-Small Cell Lung Cancer

## KEY POINTS

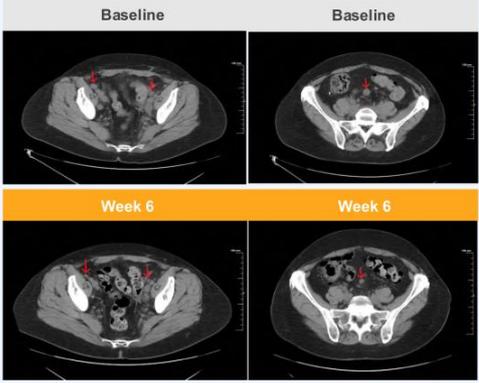
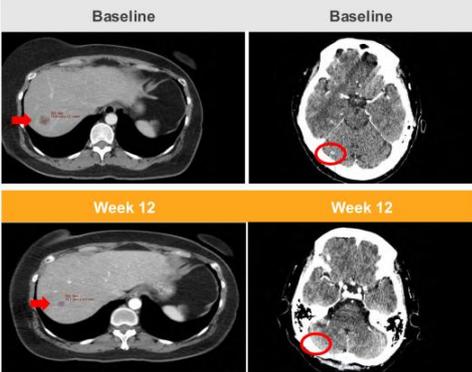
- Early data suggests synergy with an anti-PD1, with a favorable safety profile
- Potential to move to early lines of therapy in tumors like urothelial, NSCLC and endometrial carcinoma

# Partial Response in Patients Failing SOC Therapy Including Targeted Therapy and Immunotherapy

**Case: 57 y/o female with EGFRmt NSCLC and Brain Metastasis**

Confirmed PR (58% reduction) at 12 weeks after 1510+cemiplimab combo

- Prior therapies included cisplatin and pemetrexed chemotherapy
- Failed two EGFR targeting therapies including EGFR-MET bispecific amivantamab-vmjw and investigational EGFR-HER2 inhibitor



Red arrows: tumor metastasis

**Case: 53 y/o with urothelial cancer**

PR (33% reduction) at 6 weeks after 1510+cemiplimab combo

- Prior therapies included cisplatin and gemcitabine chemotherapy
- Enfortumab Vedotin and pembrolizumab for metastatic disease.

## BHV-1510: Tumor Reduction Seen in Difficult to Treat Tumors, in Patients Progressing on Standard and Approved Therapies

ONCOLOGY

- Clinical activity seen across doses starting at the lowest dose
- As monotherapy partial response seen in tumor types (SCLC, Endometrial, NSCLC) in patients that are heavily pretreated and have progressed on standard of care therapies
- Patients on treatment with durable clinical benefit, several at 6 months and beyond
- Tumor reductions seen in first 6/6 evaluable patients treated with cemiplimab combination; PRs in urothelial and NSCLC patients
- Favorable preliminary safety profile
  - No payload-associated ILD, low GI toxicity like diarrhea, and low hematological toxicity
  - Main toxicity observed is on-target Trop2 ADC class mucositis; an expected and manageable effect
  - Combination with cemiplimab well tolerated with no DLTs to date in initial cohorts

Prelim data from ongoing study. Data cut off May 2, 2025

**KEY  
POINTS**

Preliminary efficacy and tolerability of BHV-1510, incorporating the novel Topolx payload and highly stable linker, indicate potential for use in earlier treatment settings across various cancers

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BHV-1530

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### Novel FGFR3 mAb With Proprietary Topolx Payload

- Only FGFR3 directed ADC in clinic
- Site-specific conjugation with favorable nonclinical tox profile

### FGFR3 Is a Validated Target With Limited Competition

- No current FGFR3 ADCs approved or in advanced development Core opportunity in FGFR3-altered metastatic urothelial cancer
  - Only 1 Tyrosine Kinase Inhibitor approved
  - TKI toxicity due to Pan FGFR inhibition
- Potential extension into other FGFR3-driven solid tumors

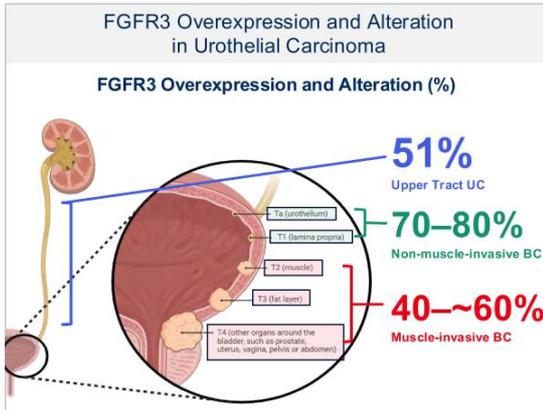
### Synergistic Efficacy With Checkpoint Inhibitors *In Vivo*

Anti-PD-L1 combination showed synergy similar to BHV-1510



**BHV-1530**  
CLINIC-READY  
FGFR3 ADC

# FGFR3 Is a Promising Therapeutic Target in Several Tumors



HSCC, Head and Neck Squamous Cell Carcinoma.



~15% of HNSCC have FGFR3 mutations with overexpression noted in nearly half of oral and oropharyngeal cancers

FGFR3 expression in 38% of lung cancers suggests substantial overexpression within these types



5% of endometrial cancers have FGFR3 alterations, potentially indicating more widespread overexpression  
4% of cervical cancer cases exhibit the FGFR3-TACC3 fusion, which is associated with higher FGFR3 expression

~ 8% of glioblastomas show a FGFR3-TACC3 fusion, commonly linked to increased levels of FGFR3 protein



**KEY POINT**

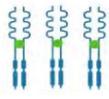
ADC and CPI combinations are emerging as a powerful strategy in urothelial cancer—offering the potential to drive deeper, more durable responses and shift the standard of care

# BHV-1530: Potential to Address Unmet Need in Metastatic Urothelial Cancer (mUC) and other FGFR3-Driven Tumors

**FGFR3 overexpression, mutation, or fusion leads to excessive pathway activation and increased tumorigenicity**



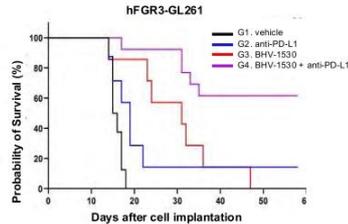
**FGFR3 mutation/fusion**  
~20% mUC



**FGFR3 overexpression**  
~35% mUC

- 62K new mUC cases, 14K deaths/year in US (2023)
- Multiple opportunities for BHV-1530 across therapy lines
- Synergistic CPI combinations in FGFR3+ biomarker-selected 1L
- Limited efficacy of current 2L options
- Several tumor types beyond mUC also driven by FGFR3

**BHV-1530 shows synergistic activity *in vivo* with anti-PD-L1 combination**



Group	% Increased Life Span (ILS)	Median Survival (days)
G1	-	15
G2	27%	19
G3	107%	31
G4	>300%	>63

# BHV-1530: Phase 1 Study in Advanced Tumors



<b>DESIGN</b>	Open label, dose escalation (Ph1)
<b>POPULATION</b>	Advanced tumors having failed SOC therapy
<b>SAMPLE SIZE</b>	95 patients
<b>TREATMENT</b>	BHV-1530
<b>TREATMENT DURATION</b>	Until disease progression or toxicity
<b>KEY ENDPOINTS</b>	Safety and tolerability, ORR, PFS, PK and ADA

ORR, Overall Response Rate; PFS, Progression Free Survival; ADA, Antidrug Antibody; BOIN, Bayesian Optimal Interval; RD, Recommended Dose.

BREAKING NEWS

First patient dosed in April 2025

157 | June 2025
Biohaven Investor Presentation
biohaven

# DAYS MATTER™

## POTENTIAL ROYALTIES

Pfizer will make royalty payments in low- to mid-teens% in respect of annual US net sales of rimegepant and zavegepant >\$5.25B, subject to annual cap (\$400M/year)<sup>1</sup>

CGRP

SHARES  
OUTSTANDING

102M<sup>2</sup>

CASH

~\$518M<sup>3</sup>

1. Cap reached if aggregate annual U.S. net sales of rimegepant and zavegepant amount to \$8.15B. Royalty payments would be in respect of years ended on or before 12/31/40. 2. As of May 9, 2025; excludes outstanding options. 3. As of April 30, 2025, and includes first tranche of Oberland deb (\$250m); Biohaven can draw additional \$150m upon FDA or EMA approval of toriluzole

# Key Milestones Anticipated in 2025–2026

 Milestone achieved

			1H 2025	2H 2025	2026
GLUTAMATE	Troiriluzole   BHV 4157	Spinocerebellar Ataxia	Completed Mid-cycle Review	PDUFA/Launch (if Approved)	
		Obsessive-Compulsive Disorder	Phase 3 Study #1 Topline		Phase 3 Study #2 Topline
MYOSTATIN	Taldefgrobep Alfa   BHV-2000	Spinal Muscular Atrophy	FDA Meeting		
		Obesity		Initiate Phase 2	
ION CHANNEL	Kv7 Activator   BHV-7000	Focal Epilepsy			Phase 3 Focal #1 Topline
		Major Depressive Disorder		Pivotal Topline	
	TRPM3 Antagonist   BHV-2100	Pain Disorders	Migraine POC Negative		
INFLAMMATION & IMMUNOLOGY	TYK2/JAK1 Inhibitor   BHV-8000 (brain-penetrant)	Parkinson's Disease (PD)	Initiated Phase 2/3		
	IgG Degradar   BHV-1300   BHV-1310	Common Disease (Graves', RA)	Completed Phase 1	Initiate Pivotal Graves Study	
		Rare Disease (Myasthenia Gravis)	Initiate Phase 1		Initiate MG study
	Gd-IgA1 Degradar   BHV-1400	IgA Nephropathy	Completed Phase 1		Initiate pivotal IgAN study
	β1AR AAb Degradar   BHV-1600	Peripartum Cardiomyopathy		Complete Phase 1	Initiate pivotal PPCM study
ONCOLOGY	Trop2 ADC +/- PD1   BHV-1510	Advanced or Metastatic Epithelial Tumors		Phase 1 Interim Data	
		Urothelial Cancer & Other Tumors	Initiated Phase 1		
	FGFR3 ADC   BHV-1530	Hodgkin Lymphoma	Regulatory Interaction		
	Undisclosed Targets	Merus and GeneQuantum Collaborations		Advance New ADCs	



DAYS  
MATTER™

biohaven®

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