

**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): May 26, 2026

**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 May 26, 2026, Biohaven Ltd. (the “Registrant”) issued a press release reporting new clinical data in epilepsy with opakalim. A copy of this press release is furnished herewith as Exhibit 99.1 to this Current Report and is incorporated herein by reference.

On May 27, 2026, the Registrant issued a press release reporting positive clinical biomarker and patient data. A copy of this press release is furnished herewith as Exhibit 99.2 to this Current Report and is incorporated herein by reference.

On May 27, 2026, the Registrant made a presentation (the “Presentation”) at its annual R&D Day held in conjunction with the Yale Innovation Summit at the Yale School of Management in New Haven, Connecticut. A copy of the Presentation is attached as Exhibit 99.3 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 Exhibits 99.1, 99.2 and 99.3 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>Press Release, Dated May 26, 2026, “Biohaven Reports New Clinical Data in Epilepsy with Opakalim, a Selective Kv7.2/7.3 Activator, Highlighting Seizure Control and Markedly Differentiated Tolerability Profile”</u>
99.2	<u>Press Release, Dated May 27, 2026, “Biohaven Reports Positive Clinical Biomarker and Patient Data: First MoDE and TRAP Extracellular Protein Degraders Achieve Deep, Rapid, Selective Lowering of Disease-Driving Antibodies in Graves’ Disease and IgA Nephropathy”</u>
99.3	<u>Investor Presentation, May 2026.</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: May 27, 2026

**Biohaven Ltd.**

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

**Biohaven Reports New Clinical Data in Epilepsy with Opakalim, a Selective Kv7.2/7.3 Activator, Highlighting Seizure Control and Markedly Differentiated Tolerability Profile**

- In a randomized, placebo-controlled, time-to-event trial in idiopathic generalized epilepsy (IGE), the median time to the second day with a generalized tonic-clonic seizure was 141 days in the opakalim 75 mg once-daily treatment group vs. 47 days in the placebo group, representing a 3-fold prolongation.
- In an ongoing open-label extension (OLE) study in focal epilepsy, an updated data analysis shows 54% of patients with focal epilepsy on opakalim 75 mg once-daily achieved a  $\geq 50\%$  reduction in seizure frequency over any consecutive six months of open-label treatment compared to pre-randomization baseline.
- A six-month update of opakalim compassionate use treatment in a Kv7-activation dependent patient with KCNQ2-Developmental and Epileptic Encephalopathy (KCNQ2-DEE) confirms clinical stability and ongoing seizure control. Overnight EEG at 6-months demonstrated a 50% reduction in seizure counts relative to pre-opakalim baseline.
- Opakalim has been well-tolerated across all studies (1000+ subjects to date) with a low incidence of adverse events (AEs) comparing favorably with approved and investigational antiseizure medicines.
  - In the IGE study, the opakalim group reported no cases of somnolence, dizziness, fatigue, or memory impairment; and in the focal epilepsy OLE study, rates of these central nervous system (CNS) AEs were less than or equal to 5% each.
  - Opakalim's tolerability profile is markedly differentiated from that of other investigational Kv7 activators reporting double-digit rates of CNS AEs in OLE studies.
- On track to receive top-line results in 2H 2026 from the first of two pivotal Phase 2/3 randomized, double-blind, placebo-controlled studies in refractory focal epilepsy to support registration.

NEW HAVEN, Conn., May 26, 2026 /PRNewswire/ -- Biohaven Ltd. (NYSE: BHVN), a global clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of life-changing therapies to treat a broad range of rare and common diseases, today reported new data from its selective Kv7.2/7.3 channel activator program, currently in Phase 2/3 studies for the treatment of focal epilepsy, and will present additional updates at its annual R&D Day held in conjunction with the Yale Innovation Summit at the Yale School of Management in New Haven, Connecticut on May 27, 2026. Opakalim is distinguished from other investigational Kv7 activators by its selectivity for Kv7.2/7.3 and lack of GABA receptor activity. Opakalim offers potential for easy-to-use, once-daily, orally-administered treatment without the need for titration to control seizures, and without the burdensome central nervous system (CNS) side effects frequently reported with approved and investigational antiseizure medicines (ASMs).

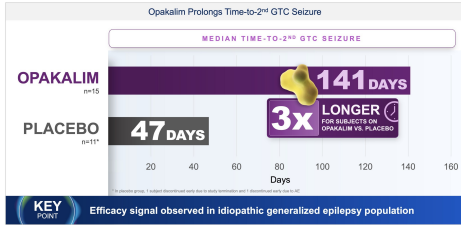


Figure 1: Opakalim 75 mg Once-Daily Prolongs Time-to-2nd Generalized Tonic-Clonic Seizure in Randomized, Double-blind, Placebo-Controlled, Time-to-Event Proof-of-Concept Trial in Idiopathic Generalized Epilepsy with Generalized Tonic-Clonic Seizures

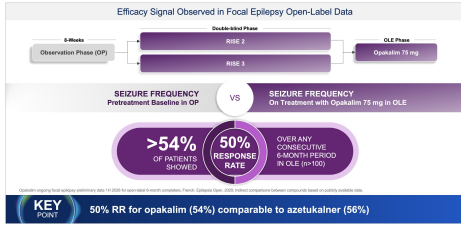


Figure 2: Updated Analysis From the Ongoing Open-Label Extension Study in Focal Epilepsy Shows 54% of Patients on Opakalim 75 mg Once-Daily Achieved a  $\geq 50\%$  Reduction in Seizure Frequency Compared to Pre-Randomization Baseline

Exceptional Tolerability Observed in Focal Epilepsy Open-Label Data

Preferred Term	Opakalim 50 mg	Opakalim 75 mg	Opakalim Pooled
Headache	4.5%	6.4%	5.7%
Nasopharyngitis	4.5%	6.4%	5.7%
Seizure	5.3%	3.7%	4.3%
Dizziness	3.0%	5.0%	4.3%
Fatigue	3.0%	4.1%	3.7%
Fall	2.3%	4.8%	3.7%
Upper Respiratory Tract Infection	3.0%	4.1%	3.7%
Back Pain	3.8%	3.2%	3.4%
Insomnia	5.3%	2.3%	3.4%
Nausea	3.8%	2.8%	3.1%
Diarrhea	6.0%	1.4%	3.1%

KEY POINT: Low incidence, majority mild and spontaneously resolved

Figure 3: Updated Safety Data From the Ongoing Open-Label Extension Study in Focal Epilepsy Demonstrates Opakalim Is Well-Tolerated With a Markedly Lower Incidence of Adverse Events Compared to Approved and Investigational Antiseizure Medicines.

The R&D Day presentation will showcase new and updated clinical data from: 1) a randomized, double-blind, placebo-controlled proof-of-concept study in idiopathic generalized epilepsy (IGE); 2) an ongoing

focal epilepsy open-label extension (OLE) study; and 3) a six-month clinical update for a pediatric patient with KCNQ2 Developmental and Epileptic Encephalopathy (KCNQ2-DEE). Together, these emerging data reinforce opakalim's target engagement, differentiated profile and potential to address the unmet need for novel, effective, and well-tolerated ASMs.

Jason Lerner, M.D., Medical Director, Research & Development and Epilepsy Development Lead at Biohaven, commented, "The opakalim data across IGE, focal epilepsy and KCNQ2-DEE are consistent and compelling. What stands out is not just that opakalim controls seizures — it's that it does so without the burdensome side effects that compromise quality of life and adherence for people with epilepsy. Dizziness, somnolence, fatigue, and memory impairment are reported in meaningful proportions of patients on existing and investigational ASMs. Opakalim's zero rates of somnolence, dizziness, fatigue, and memory impairment in our small IGE proof-of-concept study, and single-digit rates of CNS adverse events in our focal epilepsy program suggest that selective Kv7.2/7.3 activation is a fundamentally different and cleaner mechanism. I believe opakalim can offer people with epilepsy real seizure control without asking them to compromise their quality of life."

#### **Efficacy Signal in Highly Treatment-resistant IGE Population**

Biohaven to present results from a randomized, double-blind, placebo-controlled, time-to-event proof-of-concept study evaluating opakalim 75 mg once-daily in subjects with IGE with intractable GTC seizures (NCT06425159). The study's prespecified primary outcome measure was defined as the time to the second day with a GTC seizure during the 24-week double-blind treatment period. The study enrolled a total of 27 subjects (15 in the opakalim arm and 12 in the placebo arm). Formal statistical testing is not provided, as this proof-of-concept study was closed prior to reaching the study's prespecified sample size, due to enrollment challenges and strategic portfolio prioritization. The observed efficacy and tolerability signals are consistent with opakalim's mechanism and broader clinical dataset.

#### **Key Findings:**

- Median time to second GTC seizure during the 24-week double-blind treatment period: 141 days on opakalim vs. 47 days on placebo, a 3-fold prolongation of time to second seizure event (Figure 1).
- 33% of opakalim-treated subjects completed the 24-week double-blind phase without a second GTC seizure vs. 0% of placebo subjects.
- 20% of opakalim-treated subjects completed the 24-week double-blind phase seizure-free vs. 0% of placebo subjects.
- Opakalim was well-tolerated with remarkably low rates of nervous system adverse events (AEs) including somnolence, dizziness, and fatigue — AEs that collectively occur in more than one-third of patients on competitor investigational Kv7 activator in long-term studies, and at even higher rates with approved ASMs.

#### **Efficacy Signal and Differentiated Safety Profile in Focal Epilepsy OLE**

Biohaven to also report updates from its focal epilepsy program, including a recent data analysis from the ongoing open-label extension study of opakalim in subjects with refractory focal epilepsy (NCT06443463). As of 1H 2026, the double-blind study completion rates were 95%; and rollover rates in the optional open-label extension were 95%, reflecting subject and investigator confidence in opakalim.

#### **Key Findings:**

- In the opakalim 75 mg once-daily, six-month completers cohort (n>100), 54% of subjects achieved a  $\geq 50\%$  reduction in seizure frequency over any consecutive six months of OLE treatment compared to pretreatment baseline prior to randomization (Figure 2). This result is on par with the  $\geq 50\%$  responder rate reported for the investigational Kv7 activator azetukalner (56%), but opakalim achieves this comparable level of seizure control with a substantially lower burden of CNS AEs, including markedly lower rates of dizziness, somnolence, fatigue, and memory impairment.
- The AE profile was favorable and consistent with prior data, with a markedly lower incidence of AEs compared to approved and investigational ASMs (Figure 3). For example, in opakalim-treated subjects (75 mg), dizziness was reported in only 5.0% of subjects. By contrast, published long-term data from a competitor's Kv7 activator shows its open-label extension study reported dizziness in 25%, somnolence in 17%, memory impairment in 11%, and falls in 15% of subjects. These data suggest opakalim's selective Kv7.2/7.3 activation without GABA effects may translate into a meaningfully cleaner CNS tolerability profile than other ASMs.

#### Clinical Stability and Ongoing Seizure Control in Kv7-Dependent KCNQ2-DEE Patient

Biohaven to further provide a six-month update for the 9 year-old boy with refractory epilepsy due to KCNQ2-DEE being treated with compassionate use opakalim. The patient had a history of daily tonic seizures despite three concurrent ASMs, including a first-generation Kv7 activator, with prior attempts to taper first-generation Kv7 resulting in status epilepticus, ICU admission, and developmental regression. Following compassionate use authorization under a single-patient IND approved by the FDA, he was transitioned to opakalim at exposures calibrated to match the 75 mg dose being studied in the pivotal focal epilepsy trials.

#### Key Finding:

- Now at the six-month mark, the patient remains clinically stable. Overnight EEG at six-months demonstrated a 50% reduction in seizure counts relative to pre-opakalim baseline. Opakalim has been well-tolerated over the six-month treatment period.

Biohaven is on track to announce in 2H 2026 top-line results from the first of two pivotal Phase 2/3 randomized, double-blind, placebo-controlled studies in refractory focal epilepsy to support registration.

#### About Opakalim

Opakalim (BHV-7000) is Biohaven's next-generation, selective Kv7.2/7.3 potassium channel activator that targets a clinically validated mechanism of action for the treatment of epilepsy. Opakalim is differentiated from both first- and second-generation Kv7 activators by its selectivity: it preferentially activates the Kv7.2/7.3 heteromeric channels that are the predominant regulators of neuronal excitability, with substantially less activity at GABA receptors. This selectivity profile is hypothesized to underlie opakalim's favorable tolerability, including the low rates of somnolence, dizziness, and fatigue observed in clinical studies to date. Opakalim has been studied in more than 1,000 subjects across multiple clinical trials, consistently demonstrating a favorable tolerability profile. Biohaven is currently conducting two Phase 2/3 randomized, double-blind, placebo-controlled studies (NCT06132893 and NCT06309966) comparing the efficacy of opakalim to placebo as an adjunctive therapy for refractory focal onset epilepsy, as well as an open-label extension study (NCT06443463) to evaluate the long-term efficacy and safety of opakalim.

**About Biohaven**

Biohaven is a biopharmaceutical company focused on the discovery, development, and commercialization of life-changing treatments in key therapeutic areas, including immunology, neuroscience, and oncology. Biohaven is advancing its innovative portfolio of therapeutics, leveraging its proven drug development experience and multiple proprietary drug development platforms. Biohaven's extensive clinical and preclinical programs include Kv7 ion channel modulation for epilepsy; MoDE™ and TRAP™ extracellular protein degradation for immunological diseases; and myostatin inhibition for neuromuscular and metabolic diseases, including obesity. For more information, visit [www.biohavenpharma.com](http://www.biohavenpharma.com).

**Forward-Looking Statements**

This news release includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The use of certain words, including "continue", "plan", "will", "believe", "may", "expect", "potentially", "groundbreaking" 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 development candidates, 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, including the studies of opakalim; the timing of planned interactions and filings with the FDA; the timing and outcome of expected regulatory filings; complying with applicable US regulatory requirements; the potential commercialization of Biohaven's product candidates; and the effectiveness and safety of Biohaven's product candidates. Additional important factors to be considered in connection with forward-looking statements are described in Biohaven'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". The forward-looking statements are made as of the date of this news release, and Biohaven does not undertake any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

MoDE and TRAP are trademarks of Biohaven Therapeutics Ltd.

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**Biohaven Reports Positive Clinical Biomarker and Patient Data: First MoDE and TRAP Extracellular Protein Degraders Achieve Deep, Rapid, Selective Lowering of Disease-Driving Antibodies in Graves' Disease and IgA Nephropathy**

- BHV-1300 demonstrated deep, rapid, and sustained lowering of pathogenic TSHR autoantibodies (TSHR-IgG1) in patients with Graves' hyperthyroidism receiving 1000 mg SC weekly, with mean reductions in TSHR-IgG1 exceeding >80% over the 12-week study.
  - Participants with Graves' overt hyperthyroidism, confirmed by elevated baseline thyroid tests despite being treated with anti-thyroid drug therapy (ATD), experienced normalization of thyroid hormones within weeks; T4 normalization occurring at a median of 3 weeks and T3 at a median of 5 weeks after the first administration of BHV-1300.
  - These preliminary patient data from an ongoing Phase 1b study highlight deep lowering of TSHR-IgG1 with BHV-1300 as a potentially disease-modifying approach to Graves' disease.
- BHV-1400 achieved rapid, deep, selective, and sustained lowering of Gd-IgA1 in patients with IgA nephropathy (IgAN), differentiating Biohaven's leading TRAP degrader from the complement and BAFF/APRIL inhibitor competition.
  - Participants with IgAN administered BHV-1400 showed a rapid, > 60% mean reduction of Gd-IgA1 within hours, and a 70% mean reduction of within the first one-month of dosing. Observed reductions in Gd-IgA1 were deeper than has been reported with BAFF/APRIL inhibitors, APRIL-inhibitors, and CD38 inhibitors at these early time points.
  - Preliminary observations also demonstrated an increase in eGFR, decrease in spot UPCR, and a decrease in hematuria with one month or less of dosing.
  - BHV-1400 brings precision immunology to the treatment landscape of IgAN as it was rationally designed to selectively remove galactose-deficient IgA1 (Gd-IgA1), the pathogenic antibody driver of the disease while sparing healthy antibodies IgA, IgG, IgE, and IgM.
  - Designed to target the disease driver while preserving healthy immunoglobulins, the complement system, and cell-mediated and humoral immunity, BHV-1400 offers a differentiated approach to current immunosuppressive therapies approved or in development.
- Both BHV-1300 and BHV-1400 continue to demonstrate the paradigm shifting potential of its extracellular degrader platform to target pathogenic antibodies causing disease. BHV-1300 and BHV-1400 show a differentiated safety profile with no clinically significant increases in cholesterol, decreases in albumin, or increases in ALT, AST, or bilirubin. Most AEs were mild and self-resolving, there were no drug discontinuations throughout the patient studies, and no serious or severe AEs.
- Pivotal Phase 3 trials in Graves' Disease and IgA Nephropathy to initiate in the coming weeks by mid-2026. Both trials use a patient friendly, simple to self-administer autoinjector for BHV-1300 and BHV-1400.

**NEW HAVEN, Conn., May 27, 2026 /PRNewswire/** – Biohaven Ltd. (NYSE: BHVN) (“Biohaven”) a global clinical-stage biopharmaceutical company focused on the discovery, development and commercialization of life-changing therapies with the potential to transform autoimmune diseases today reported compelling results regarding its proprietary extracellular MoDE™ (BHV-1300) and TRAP™ (BHV-1400) degrader platform. The new patient data from its BHV-1300 MoDE degrader for Graves' disease and BHV-1400 TRAP degrader for IgA nephropathy is being presented today at Biohaven's R&D and Analyst Day as part of the 2026 Yale Innovation Summit at the Yale School of Management in New Haven, Connecticut.

Tova Gardin, M.D., Chief Translational Officer of Biohaven, commented, "These new data in patients with Graves' disease and IgAN bridge scientific insights and Phase 1 findings – including pharmacodynamics and safety – to advance the programs into the upcoming Phase 3 studies planned for this summer. We continue to make good on our promise to translate the best of immunoscience into meaningful solutions for patients. Through focused innovation and execution, we have advanced the first MoDE and TRAP extracellular protein degraders, demonstrated their ability to rapidly and deeply reduce the antibodies that drive disease, and are encouraged by the biomarker data as well as early improvements in clinical outcomes noted by patients and investigators. As we enter pivotal trials in 2026 and continue to innovate with breakthrough science and precision tools, these data represent just the beginning of the impact we plan to deliver with our Biohaven proprietary extracellular degrader platform."

Dr. Coric continued, "Additionally, our first-in-class FGFR3-directed ADC, BHV-1530, continues dose escalation with no dose-limiting toxicities observed to date, and we have begun an expansion cohort in advanced endometrial cancer with our next-generation TROP-2 directed ADC BHV-1510 in combination with Libtayo. We are also excited about progress with our TYK2/JAK1 inhibitor for early Parkinson's disease and continue to advance enrollment in this trial. Finally, our thought leadership in neurology was on display last month at AAN, where we notably delivered a total of 5 oral presentations and posters highlighting our differentiated neuroscience and immunoscience portfolio. Though our approach has been marked by a disciplined and careful management of resources, we are pleased with progress achieved in recent months and look forward to sharing more detailed and robust updates across our portfolio at our annual R&D Day at the Yale Innovation Summit on May 27, 2026 in New Haven, Connecticut."

*Key Highlights from the Phase 1b Graves' Disease Patient Experience with BHV-1300:*

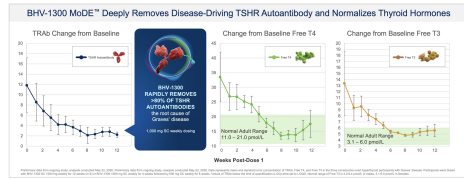
- Weekly administration of BHV-1300 1000 mg achieved mean reductions of pathogenic TSHR-IgG1 of >80% by week 12 in patients with Graves' hyperthyroidism (see Figure 1), a deeper reduction in pathogenic TSHR-IgG1 than has been demonstrated with the FcRn inhibitor competition.
- Patients with elevated thyroid hormones experienced a normalization of free T4 at a median of 3 weeks and a normalization of free T3 within a median of 5 weeks (see Figure 2). Patients reported improvements in classic symptoms of hyperthyroidism including palpitations, fatigue, diarrhea, diaphoresis, tremor, and mood.
- BHV-1300 has been safe and well-tolerated through 12 weeks of dosing. Most AE's have been mild and self-resolving, there have been no drug-discontinuations, and no serious or severe AEs. There have been no clinically significant increases in cholesterol, decreases in albumin, or increases in ALT, AST or bilirubin. Critically, BHV-1300 preserved IgG3 and demonstrated no clinically significant reductions in IgG3, IgA, IgE, or IgM relative to baseline, maintaining the immune protection that FcRn inhibitors — which lower all IgG subclasses including IgG3 — have not demonstrated.

Malini Gupta, M.D., ECNU, FACE, Director of G2Endo- Endocrinology in Memphis, the 2025 AACE Thyroid Chair and investigator in the BHV-1300 study, commented, "We are excited by these initial data in patients with Graves' disease, which demonstrate BHV-1300's ability to profoundly reduce TSHR autoantibodies and to normalize thyroid function in patients who have limited options today." Dr. Gupta added, "The strong link between TSHR-IgG1 lowering and clinical response positions BHV-1300 as a potential first-and-best-in-class therapy for Graves' disease. We see substantial unmet need in this population with no current disease modifying therapy and are excited for our patients to participate in the BHV-1300 pivotal Phase 3 study this year."

The positive Phase 1b results in patients with Graves' disease who were hyperthyroid despite concurrent treatment with ATDs build on the observed dose-response relationship of BHV-1300 and literature that suggests deeper TSHR-IgG1 reductions are known to drive meaningfully higher efficacy compared to more

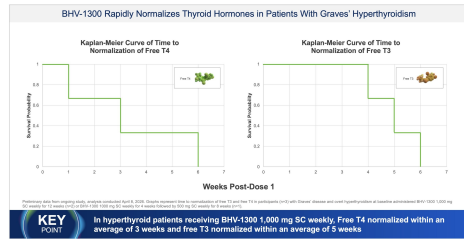
modest lowering. Additional biomarker and pharmacokinetic data (n=8) regarding Graves' patients who were and were not hyperthyroid at baseline will be presented at the Biohaven R&D Day and will be available on the company's website. Based upon the pharmacokinetic and biomarker results with BHV-1300 in this Phase 1b study, Biohaven is advancing to a pivotal trial in Graves' disease in the coming weeks. The planned study design is a double-blind placebo-controlled study in adults with Graves' hyperthyroidism evaluating normalization of T3, T4, and TSH at 26 weeks absent an antithyroid drug.

**Figure 1:** BHV-1300 rapidly and robustly reduced TSHR autoantibodies and normalized free T4 and free T3 in consecutively treated hyperthyroid patients (n=3) who were already on ATDs



BHV-1300 MoDE™ Deeply Removes Disease-Driving TSHR Autoantibody and Normalizes Thyroid Hormones

**Figure 2:** Time to normalization of thyroid hormones after treatment with BHV-1300 in consecutively treated patients (n=3) with hyperthyroidism at baseline despite concurrent use of antithyroid drugs.



BHV-1300 Rapidly Normalizes Thyroid Hormones in Patients With Graves' Hyperthyroidism

*Key Highlights from the Phase 1b IgA Nephropathy Disease Patient Experience with BHV-1400:*

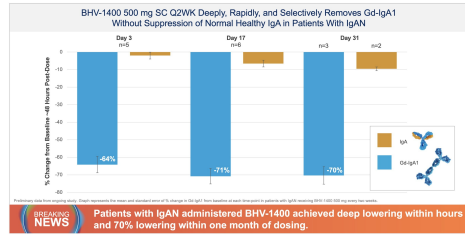
- Administration of BHV-1400, the Company's first TRAP, galactose-deficient IgA1 (Gd-IgA1) TRAP degrader for the treatment of IgA nephropathy (IgAN) achieved deep, rapid, and sustained mean reductions of pathogenic Gd-IgA1 of >60% within 48 hours of subcutaneous administration and 70% within the one month of dosing in patients with IgAN (see Figure 3). These reductions

are deeper than those demonstrated by BAFF-APRIL inhibitors, APRIL inhibitors, and CD38 inhibitors at this early time point.

- Reductions in Gd-IgA1 were associated with resolution of hematuria, decreases in spot UPCR, and increases in eGFR (see Figures 4-6). Participants also subjectively reported improvements in fatigue.
- BHV-1400 has been safe and well-tolerated throughout one month of dosing. Most AE's have been mild and self-resolving, there have been no drug-discontinuations, and no serious or severe AEs. There have been no clinically significant increases in ALT, AST or bilirubin, and no clinically significant reductions in other immunoglobulins relative to baseline.
- Effects were selective, with no clinically significant reductions observed in other immunoglobulins: IgA, IgG, IgE, or IgM.

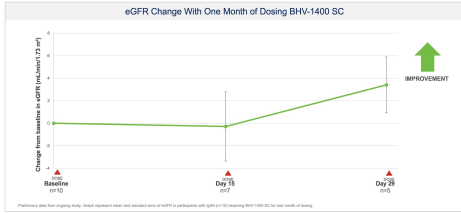
Dr. Jonathan Barratt, the Mayer Professor of Renal Medicine at University of Leicester and leading expert in the treatment of IgAN, commented on the new Phase 1b patient data, "These new data, which include data from my own patients, represent the next frontier of innovation for patients with IgA nephropathy. Currently approved treatments broadly suppress the immune system, and disease recurs upon their cessation, necessitating long term, potentially life long, treatment. There is a need for rapid acting and safe and rapid therapies that can be utilized throughout a patient's lifetime. The data I presented today show consistency between Phase 1 healthy subjects and patients with IgAN in BHV-1400's ability to deeply remove pathogenic Gd-IgA1. This reduction in Gd-IgA1 is associated with an immediate impact on patient outcomes rapidly without immunosuppression. I remain excited about BHV-1400, based on the Phase 1 patient data, as it rapidly and specifically targeted the fundamental abnormality in IgA nephropathy while sparing the rest of the immune system. It has the potential to take away the major driver for immune complex formation while leaving other antibodies unaffected, which means it potentially has efficacy with unrivaled safety."

**Figure 3:** BHV-1400 rapidly and robustly reduced Gd-IgA1 in patient with IgAN.



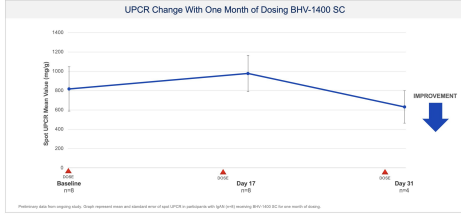
BHV-1400 500 mg SC Q2WK Deeply, Rapidly, and Selectively Removes Gd-IgA1 Without Suppression of Normal Healthy IgA in Patients With IgAN

**Figure 4:** Associated changes to eGFR in IgAN patients administered one month of treatment with BHV-1400.



eGFR Change With One Month of Dosing BHV-1400 SC

**Figure 5:** Associated changes to UPCR in IgAN patients administered one month of treatment with BHV-1400.



UPCR Change With One Month of Dosing BHV-1400 SC

**About Graves' Disease**

Graves' disease is the most common cause of hyperthyroidism, driven by autoantibodies stimulating the TSH receptor. A relapsing and remitting condition, Graves' disease affects 1% of the global population.

Driven by an autoantibody (TSHR-IgG1) that binds the TSH receptor, Graves' disease causes multi-organ symptoms and is complicated by associated TSHR-IgG1 driven conditions: thyroid eye disease, neonatal Graves' disease, and pretibial myxedema. Current treatment options are limited to thyroid organ removal or ablation or anti-thyroid drugs, none of which target the underlying autoantibody driving the disease. Standard ATDs do not target the underlying driver of disease and leave patients still symptomatic and at risk for development of thyroid eye disease and pretibial myxedema. Among patients with Graves' disease recently exposed to antithyroid drugs, 93% report multiple ongoing symptoms, with 72% reporting five or more persistent symptoms. With no new FDA approved therapy in over seventy years, there is a high unmet need for a novel therapy targeting the root cause of disease.

Biohaven's Lead MoDE degrader, BHV-1300, is poised to advance into its pivotal trial in Graves' disease mid-2026.

The presentation slides from Biohaven's R&D Day for the TRAP and MoDE degraders and its other platforms will be available on the Events and Presentations page of the Biohaven website just prior to their presentations.

**About BHV-1300**

BHV-1300, first MoDE, is a small molecule, extracellular IgG degrader, rationally designed to leverage the body's natural hepatic clearance mechanisms to selectively target and remove IgG1, IgG2, and IgG4, the underlying cause of many immune-mediated diseases. BHV-1300 is mechanistically differentiated from FcRn inhibitors in multiple important ways: first, it selectively targets the disease-causing IgG subclasses (IgG1, IgG2, IgG4) while sparing IgG3, which mediates protection against bacteria, viruses, and parasites and which has not been demonstrated with FcRn inhibitors; second, as a small molecule, BHV-1300 does not interact with FcRn and therefore does not accelerate the clearance of co-administered Fc-containing biologic therapies — a meaningful clinical limitation of the FcRn inhibitor class; third, it avoids the off-target effects of cholesterol elevation, albumin reduction, and headache associated with first-generation FcRn inhibitors; and fourth, it is delivered in a convenient self-administered autoinjector.

**About IgA Nephropathy**

IgA nephropathy is the leading cause of glomerular disease globally and is commonly diagnosed in individuals in their second and third decades of life, with most individuals progressing to renal failure over the ensuing 10-15 years. As a disease of the immune system, IgA nephropathy frequently returns even after renal transplant. While the 2021 Kidney Disease Improving Global Outcomes (KDIGO) treatment guidelines recommended only standard chronic kidney disease treatments, the 2025 guidelines emphasize the importance of treating the underlying immune disease by removing aberrant forms of IgA. "Galactose deficient IgA1 is the fundamental abnormality in IgA nephropathy," Dr. Barratt explained, "It's a group of IgA molecules that have changes to the sugars on the IgA1 hinge region that fundamentally change the way this antibody behaves. It promotes immune complex formation and it's these immune complexes that cause glomerular injury and damage and promote loss of kidney function."

**About BHV-1400**

BHV-1400, Biohaven's lead TRAP extracellular degrader, rapidly and selectively removes Gd-IgA1, the fundamental abnormality in IgA nephropathy, without adversely affecting any other immunoglobulins or components of protective immunity. BHV-1400's precision approach is differentiated from all existing and investigational therapies for IgAN: complement inhibitors, BAFF/APRIL inhibitors and non-selective inhibitors of IgA all suppress immunity. BHV-1400 has been safe and well-tolerated across the ongoing Phase 1b study in IgAN patients. Most adverse events (AEs) were mild and self-resolving, there were no discontinuations due to AEs related to study drug, and there were no serious or severe AEs related to drug. There were no clinically significant increases in ALT, AST or bilirubin, no clinically significant reductions in albumin and no clinically significant increases in cholesterol relative to placebo over the one month dosing period. There were no clinically significant reductions in other immunoglobulins including IgG, IgA, IgE, or IgM relative to baseline.

**About Biohaven**

Biohaven is a biopharmaceutical company focused on the discovery, development, and commercialization of life-changing treatments in key therapeutic areas, including immunology, neuroscience, and oncology. The Company is advancing its innovative portfolio of therapeutics, leveraging its proven drug development experience and multiple proprietary drug development platforms. Biohaven's extensive clinical and preclinical programs include Kv7 ion channel modulation for epilepsy; MoDE and TRAP extracellular protein

degradation for immunological diseases; and myostatin inhibition for neuromuscular and metabolic diseases, including obesity. For more information, visit [www.biohavenpharma.com](http://www.biohavenpharma.com).

#### Forward-Looking Statements

This news release includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The use of certain words, including "continue", "plan", "will", "believe", "may", "expect", "potentially", "groundbreaking" 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 to and potential marketing approval and commercialization of development candidates, 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, including the studies of BHV-1300 and BHV-1400; the timing of planned interactions and filings with the FDA; the timing and outcome of expected regulatory filings; complying with applicable US regulatory requirements; the potential commercialization of Biohaven's product candidates; and the effectiveness and safety of Biohaven's product candidates. Additional important factors to be considered in connection with forward-looking statements are described in Biohaven'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". The forward-looking statements are made as of the date of this news release, and Biohaven does not undertake any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

MoDE and TRAP are trademarks of Biohaven Therapeutics Ltd.

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BHVN  
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NYSE

**Biohaven R&D Day**

May 27, 2026

**DAYS  
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## 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 (including those for our taldefgrobep alfa, opakalim, BHV-2100, BHV-8000, BHV-8100, BHV-1300, BHV-1310, BHV-1400, BHV-1510, BHV-1530 and BHV-1600 development programs), the timing of and the availability of data from our clinical trials, the timing of 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-1955, BHV-8200, BHV-2110, BHV-1490, BHV-1420, BHV-1440, BHV-6500 and BHV-1500. The use of certain words, including "continue", "plan", "will", "believe", "may", "expect", "anticipate" "potential first-in-class" 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 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 resubmission of our new drug application for tririluzole for SCA; the timing and outcome of expected regulatory filings; Biohaven's compliance with applicable U.S. regulatory requirements; the potential commercialization of Biohaven's product candidates; 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.

# WELCOME

**Vlad Coric, M.D.**  
*Chairman and Chief Executive Officer*

**biohaven**<sup>®</sup>



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NYSE

**INNOVATION**

**Novel, paradigm-shifting science**

Potential paradigm shifting therapies from discovery to ongoing clinical trials

**EXECUTION**

**>6 clinical-stage trials in 2026**

Milestones on track

**VALUE**

**Targeting unmet patient needs and addressable markets**

each with blockbuster potential

**biohaven**<sup>®</sup>  
**DAYS MATTER**<sup>™</sup>

**biohaven®**  
DAYS MATTER™

**INNOVATION**  
*in* **ACTION**

**BHV-1400**  
TRAP™ degrader  
First Gd-IgA1 target  
IgA nephropathy  
**First Gd-IgA1 degrader**

**BHV-1300**  
MoDE™ degrader  
First IgG degrader  
Graves' disease  
**First IgG degrader**

**BHV-8000**  
First TYK2/JAK1 inhibitor  
Brain-penetrant  
Parkinson's disease  
**Novel brain-penetrant TYK2/JAK1**

**Ion Channels**  
**BHV-7000**  
**Opakalim**  
Selective Kv7 activator  
Paradigm tolerability  
**Potential paradigm shifting Kv7 activator**

**Novel myostatin-activin**  
**Obesity**  
**BHV-2000**  
**Taldefgrobep**  
Myostatin/activin  
High-quality weight loss  
Obesity

**Next-Gen Discovery Targets**  
Degraders for diabetes, IgG4 diseases and emerging targets  
**Innovative next-gen molecules**

**BHV-1955**  
Potential first-in-clinic  
Nasal oxytocin  
Tinnitus targets

**Oncology**  
**BHV-1530**  
First FGFR3 ADC  
Unique Topoix payload  
Oncology  
**First FGFR3 ADC**

**First-in-clinic brain-penetrant PKM2**  
**BHV-8100**  
PKM2 activator  
Brain-penetrant  
Neurodegenerative disease

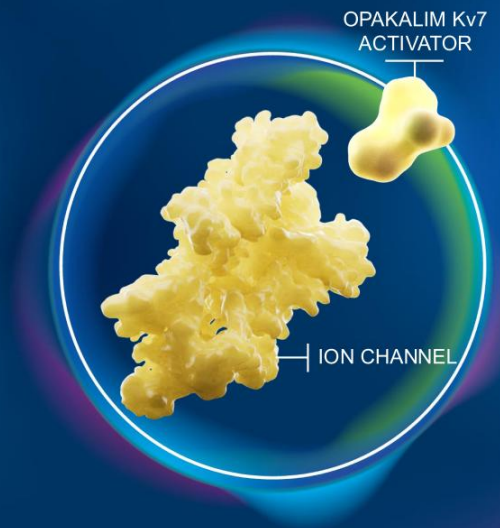
**Troriluzole SCA**  
Continued advocacy  
Days Matter™  
SCA patients  
**Pursuing first therapy for SCA**



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ION CHANNEL: OPAKALIM  
SELECTIVE Kv7 ACTIVATOR

Revolutionizing  
Epilepsy Treatment  
With a Modern Kv7  
Activator





**Matthias Koepf, MD, PhD**  
*Professor of Neurology  
University College London*



**Jason Lerner, MD**  
*Medical Director*



**Steven Dworetzky, PhD**  
*Senior Vice President,  
Kv7, Strategy & Development*

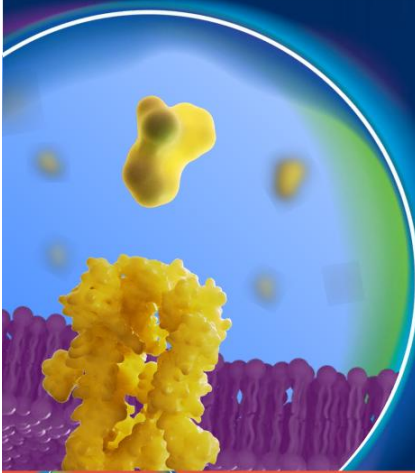


Ion Channel



# An Epilepsy Treatment Designed With Patients and Physicians in Mind

Kv7



Opakalim offers potential for easy-to-use, once-daily treatment with no titration to control seizures without the burdensome side effects frequently reported with approved ASMs and those in development

Selectively activates Kv7.2/7.3 channels—a validated MOA for treating epilepsy—without impacting GABA receptors

Exhibits preliminary efficacy signals in focal epilepsy OLE, KCNQ2-DEE and now idiopathic generalized epilepsy

Demonstrates exceptional safety profile with low rates of CNS adverse events across all trials (1000+ subjects)

**BREAKING  
NEWS**

Recent clinical data updates reinforce efficacy and differentiated tolerability

9 | May 27, 2026

Biohaven R&D Day

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Idiopathic Generalized  
Epilepsy (IGE)



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**Matthias Koepf, MD, PhD**

*Professor of Neurology  
University College London*

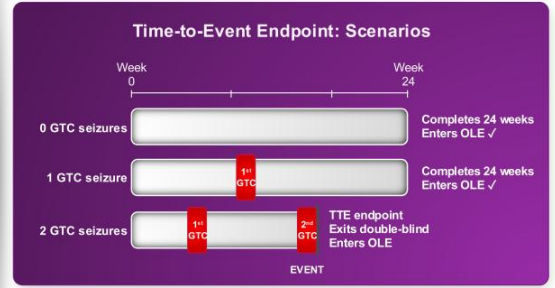
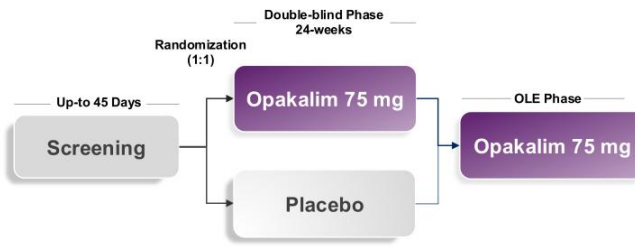


## Opakalim: Selective Kv7 Activation for IGE

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# Idiopathic Generalized Epilepsy Time-to-Event Study Design

Kv7



## KEY STUDY DETAILS

**Study Design:** Randomized, double-blind, placebo-controlled, event-driven trial  
**Endpoint: Primary** - Time-to-event (Event = 2<sup>nd</sup> day with GTC seizure); **Secondary** - GTC seizure freedom  
**Population:** Subjects 18-75 with IGE and intractable GTC seizures  
**Key Entry Criteria:** 3 GTC seizures within the historic 16-week seizure assessment period

Study terminated early due to enrollment and strategic portfolio prioritization; GTC: generalized tonic-clonic; IGE: idiopathic generalized epilepsy; TTE: time-to-event

## Demographics and Baseline Disease Characteristics

Kv7

	Opakalim 75 mg n=15	Placebo n=12*
Age (mean)	37	43
Sex (% female)	73%	83%
Region (% US)	47%	25%
BMI (mean)	27	28
Number of epilepsy treatments at screening		
1 to 2	60%	67%
3 to 4	40%	33%
Number of previous and current ASMs		
≤ 6	11 (73%)	10 (83%)
> 6	4 (27%)	2 (17%)
Age at IGE diagnosis (mean)	14	13
Years since IGE diagnosis (mean)	23	30

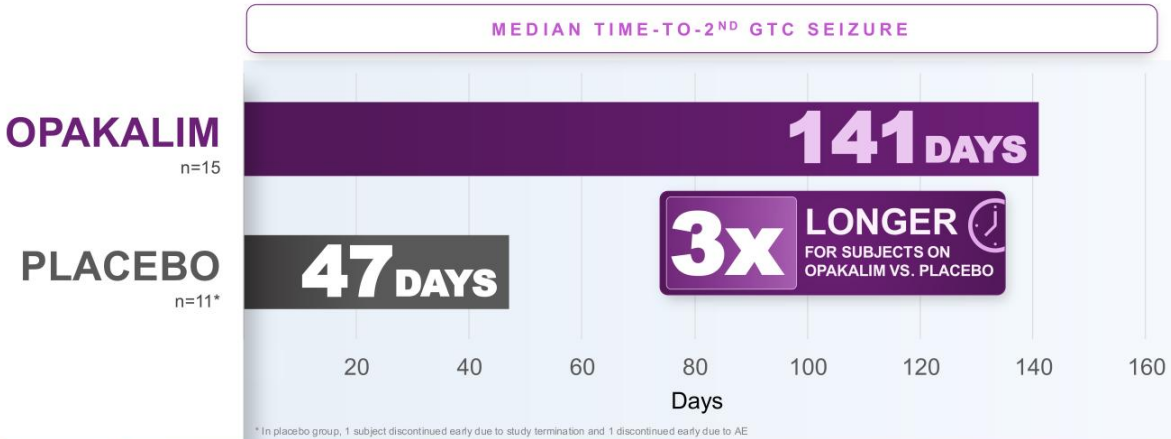
\* In placebo group, 1 subject did not have post-dose efficacy data



Highly treatment-resistant idiopathic generalized epilepsy population

# Opakalim Prolongs Time-to-2<sup>nd</sup> GTC Seizure

Kv7

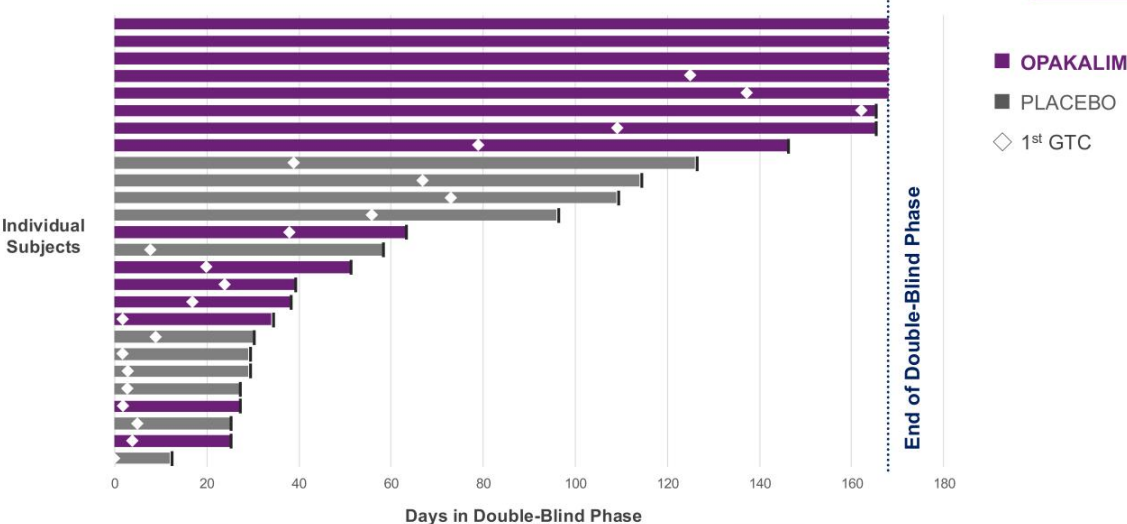


**KEY POINT** Efficacy signal observed in idiopathic generalized epilepsy population

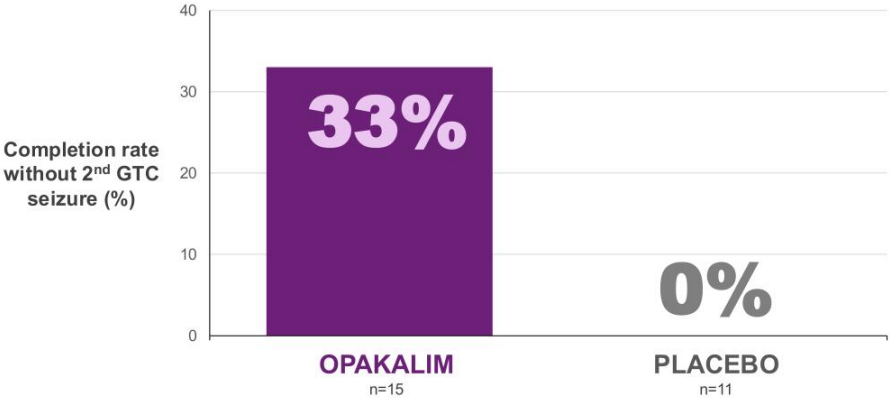
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# Opakalim Prolongs Time-to-2<sup>nd</sup> GTC Seizure & Time in Double-Blind

Kv7



# One-Third of Opakalim-Treated Subjects Completed Six-Month Double-Blind Phase Without 2<sup>nd</sup> GTC



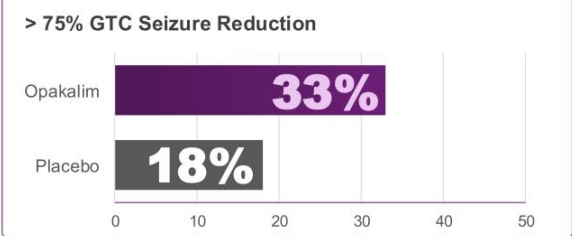
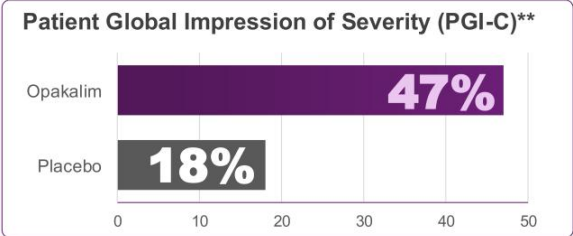
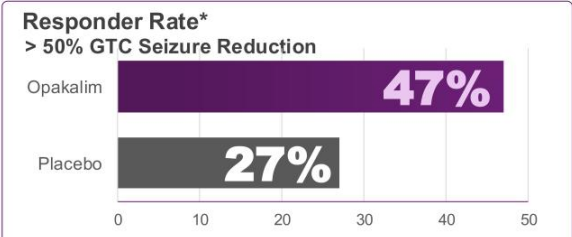
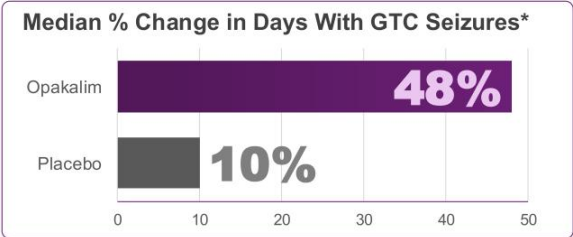
\* In placebo group, 1 subject discontinued early due to study termination and 1 discontinued early due to AE

# 20% of Opakalim-Treated Subjects Completed Six-Month Double-Blind Phase Seizure Free



\* In placebo group, 1 subject discontinued early due to study termination and 1 discontinued early due to AE

# Opakalim-Treated Subjects Showed Improvements on Seizure and Patient Reported Outcomes

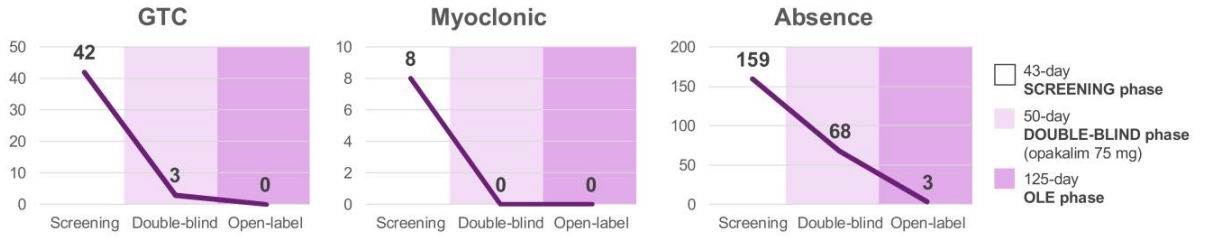


\*28-day adjusted. \*\*PGI-C – based on last assessment in double-blind phase

## Promising Case of Broad-Spectrum Generalized Seizure Efficacy



*Our patient has very difficult-to-treat IGE, since entering the opakalim trial she has experienced reduction in all seizure types.*



*In terms of tolerability, she continues to do very well, with no adverse events.*

Opakalim IGE Double-Blind Phase topline data, 1H 2026



- 50% of subjects with myoclonic seizures became myoclonic seizure free on opakalim
- 33% of subjects with absence seizures became absence seizure free on opakalim

# Opakalim Exhibits Low Rates of Nervous System Adverse Events

Kv7

Preferred Term	Opakalim (n=15) n (%)	Placebo (n=12) n (%)
Generalized tonic-clonic seizure	1 (6.7)	0
Headache	1 (6.7)	2 (16.7)
Hypotonia	1 (6.7)	0
Paraesthesia	1 (6.7)	0
Presyncope	1 (6.7)	0
Coordination abnormal	0	1 (8.3)
Dysarthria	0	1 (8.3)
Dysgeusia	0	1 (8.3)

Opakalim IGE Double-Blind Phase topline data, 1H 2026

 **No somnolence, dizziness, or fatigue**

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**Jason Lerner, MD**  
*Medical Director*

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# Opakalim: Selective Kv7 Activation for Epilepsy

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# Promising Case Reports in Idiopathic Generalized Epilepsy

## CASE STUDY #1 • IMPROVED QUALITY OF LIFE

Able to  
**travel**

**Comfortable traveling from Louisiana to California to attend a wedding**

*33 F | Intractable GTC seizures | Almost daily seizures at baseline | Does not travel*

### RESPONSE TO OPAKALIM

Decreased GTC seizure frequency with **seizure-free periods lasting weeks** and no side effects

### ABLE TO TRAVEL

Traveled to California with her husband, attended a wedding and returned to Louisiana without having a single seizure

## CASE STUDY #2 • SEIZURE FREEDOM

**425+**  
DAYS  
seizure free

**Reduced risk of mortality and epilepsy-related comorbidities**

*60 F | Intractable GTC seizures since age 16 | Frequent seizures at baseline (7 GTC seizures in 30-day screening phase) | Pulmonary and CV comorbidities*

### RESPONSE TO OPAKALIM

Seizure free in double-blind phase and open-label phase for total of 425+ consecutive days

### REDUCED RISK OF MORTALITY DUE TO SUDEP

SUDEP-3 Inventory score at baseline **was 3/4 and is now 0/4** on treatment with opakalim indicating reduced risk of SUDEP

Sudden  
Unexpected  
Death in  
Epilepsy

- Uncontrolled seizures are a major risk factor
- SUDEP-3 Inventory: validated tool to predict and quantify risk of SUDEP. For each point on the SUDEP-3, odds of SUDEP increase by 180%

Tarighati Rasekhi. Epilepsia. 2021.


# Opakalim Demonstrates Antiseizure Efficacy With Favorable Tolerability in Idiopathic Generalized Epilepsy

**SEIZURE FREEDOM**



**20%**  
on opakalim completed  
24-week double-blind phase  
**seizure free**

**COMPLETERS**



**33%**  
on opakalim completed  
24-week double blind phase  
**without 2<sup>nd</sup>  
GTC seizure**

**TIME-TO-EVENT**



On opakalim

**3x**  
longer to 2<sup>nd</sup>  
GTC seizure


**TOLERABILITY**



Well-tolerated

**No somnolence,  
dizziness, or  
fatigue**

**SAFETY**



Potentially  
reduced risk of  
mortality due to  
**SUDEP**

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KCNQ2-DEE



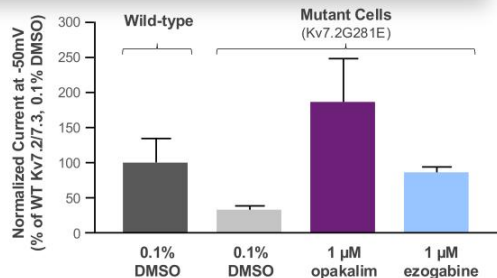
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# Efficacy Signal Demonstrated in KCNQ2-DEE

9-year-old boy with

- Refractory KCNQ2-DEE
- Kv7 activation-dependence

- Heterozygous for Kv7.2 G281E mutation
- Daily tonic seizures at baseline despite 3 ASMs including 1<sup>st</sup> gen Kv7 activator
- Prior attempts to taper 1<sup>st</sup> gen Kv7 activator resulted in **status epilepticus, ICU admission and developmental regression**



Olson. AAN 2026. Poster #P10 11-002; Equivalent exposures to 75 mg dose in pivotal focal epilepsy studies

**KEY POINT** Successfully transitioned from 1<sup>st</sup> gen Kv7 to opakalim and stable for 6+ months

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Focal Epilepsy



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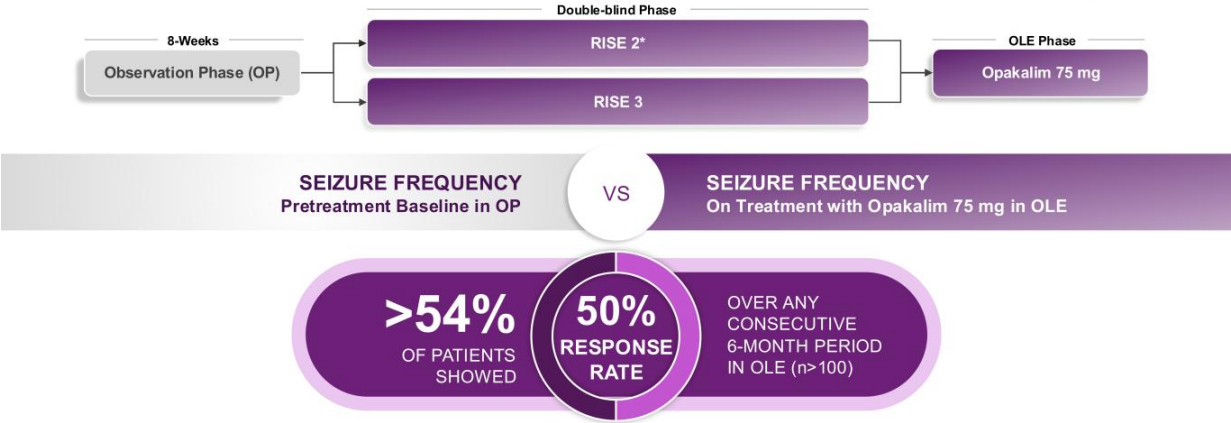
# High Retention and Rollover in Opakalim Focal Epilepsy Trials

**Double-Blind Completion Rate ~95%**

**Rollover Rate to OLE ~95%**

**>200 subjects in OLE for >6 months**

# Efficacy Signal Observed in Focal Epilepsy Open-Label Data



\* RISE 2 Part B: opakalim 75 mg  
Opakalim ongoing focal epilepsy preliminary data 1H 2026 for open-label 6-month completers; French, Epilepsia Open, 2025; Indirect comparisons between compounds based on publicly available data.

**KEY POINT** 50% RR for opakalim (54%) comparable to azetukalner (56%)

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# Exceptional Tolerability Observed in Focal Epilepsy Open-Label Data

Kv7

Preferred Term	Opakalim 50 mg	Opakalim 75 mg	Opakalim Pooled
Headache	4.5%	6.4%	5.7%
Nasopharyngitis	4.5%	6.4%	5.7%
Seizure	5.3%	3.7%	4.3%
Dizziness	3.0%	5.0%	4.3%
Fatigue	3.0%	4.1%	3.7%
Fall	2.3%	4.6%	3.7%
Upper Respiratory Tract Infection	3.0%	4.1%	3.7%
Back Pain	3.8%	3.2%	3.4%
Insomnia	5.3%	2.3%	3.4%
Nausea	3.8%	2.8%	3.1%
Diarrhea	6.0%	1.4%	3.1%

Adverse events reported in ≥3% of pooled participants, opakalim ongoing focal epilepsy open-label preliminary data 1H 2026



**KEY POINT**

**Low incidence, majority mild and spontaneously resolved**



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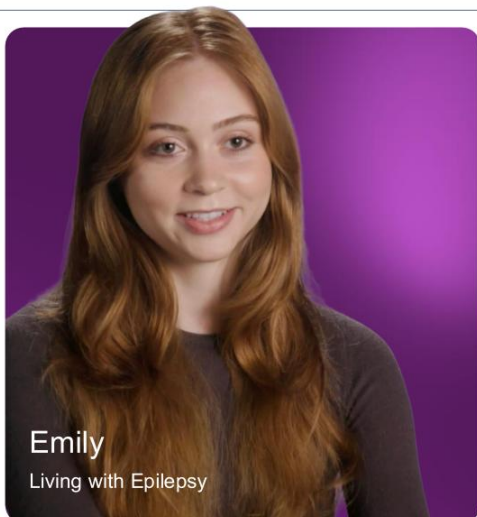
The Opportunity  
for Opakalim  
in Focal Epilepsy



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# High Unmet Need Remains for Novel, Well-tolerated and Effective Antiseizure Medicines

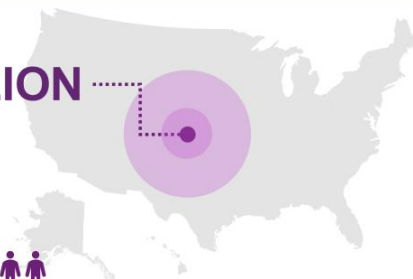
Kv7



PREVALENCE<sup>1</sup>

**3.5 MILLION**

people with epilepsy (PWE) in the US



REFRACTORY<sup>2</sup>

**UP TO 40%**

of PWE continue to have seizures despite treatment

HEALTHCARE SPENDING<sup>3</sup>

**\$24.5 BILLION**

annual spending in the US (direct costs)

1. [www.cdc.gov/mmwr/volumes/66/wr/mm6631a1.htm](http://www.cdc.gov/mmwr/volumes/66/wr/mm6631a1.htm). 2. French. *Epilepsia*. 2007. 3. [www.cdc.gov/epilepsy/data-research/facts-stats/index.html#:~:text=Health%20care%20spending](http://www.cdc.gov/epilepsy/data-research/facts-stats/index.html#:~:text=Health%20care%20spending)

# High Unmet Need Remains for Novel, Well-tolerated and Effective Antiseizure Medicines

Kv7

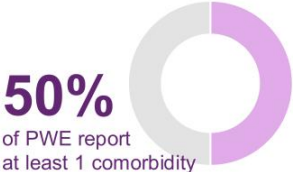
## ADVERSE EVENTS<sup>1</sup>



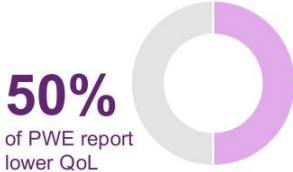
## ADHERENCE<sup>2</sup>



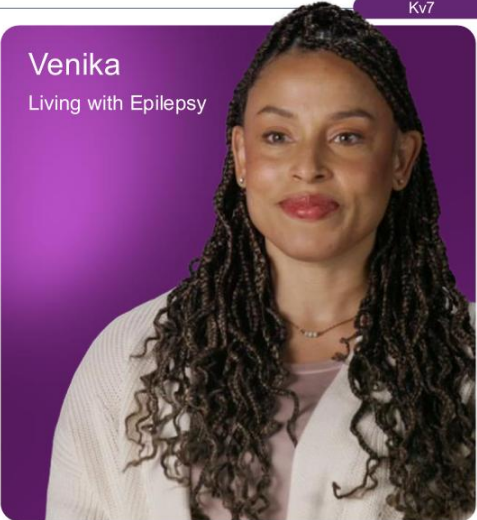
## COMORBIDITIES<sup>3</sup>



## QUALITY OF LIFE<sup>4</sup>



Venika  
Living with Epilepsy



1. Baker. Epilepsia. 1997. 2. Donahue. Neurol Clin Pract. 2025. 3. Bosak. Epilepsy & Behavior. 2025. 4. Strzelczyk. Epilepsy & Behavior. 2023.

# Similar Populations in Opakalim and Azetukalner Focal Epilepsy Trials

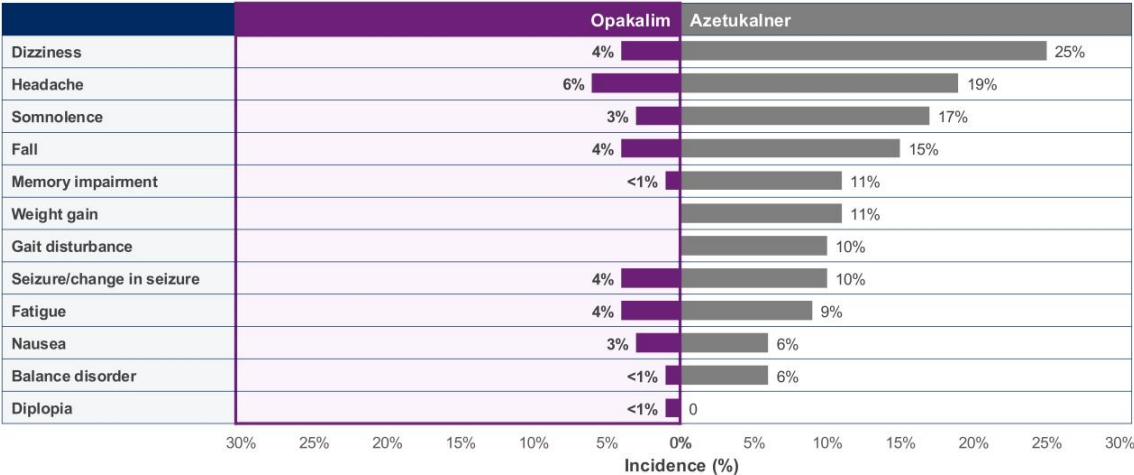
Kv7

	Opakalim	Azetukalner
n	328	374
Age (mean)	39	40
Sex	50.4% F	50.8% F
BMI (mean)	25.97	26.8
Baseline Seizure Frequency (median)	13.00	12.75
<b># of concomitant ASMs</b>		
1	11.4%	10.2%
2	36.5%	38.5%
3	50.7%	51.3%
# of ASMs tried and discontinued (median)	4	5

Opakalim (all doses) ongoing focal epilepsy open-label preliminary data 1H 2026; Azetukalner (all doses) data from Phase 3 X-TOLE 2 Study: Topline Results, March 9, 2026, xenonpharma.com

# Opakalim Demonstrates Favorable Tolerability vs. Azetukalner in Focal Epilepsy Open-Label Trials

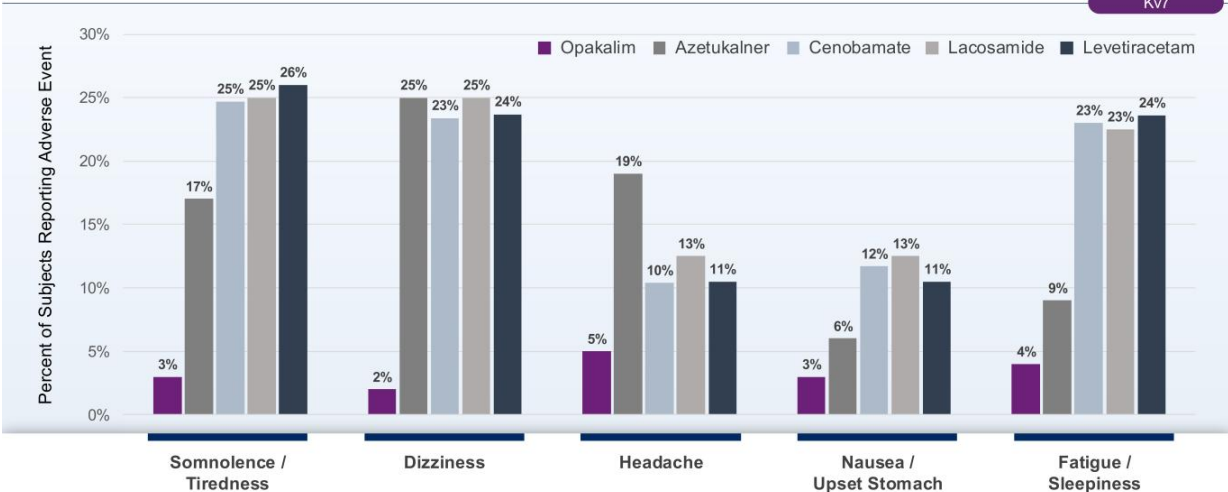
Kv7



Opakalim ongoing focal epilepsy open-label preliminary data 1H 2026; percentages rounded to the nearest whole percent; Azetukalner focal epilepsy data from Open Label Study – French. AES 2025. Poster #3.356.

# Opakalim Demonstrates Favorable Tolerability vs. Approved and Investigational ASMs

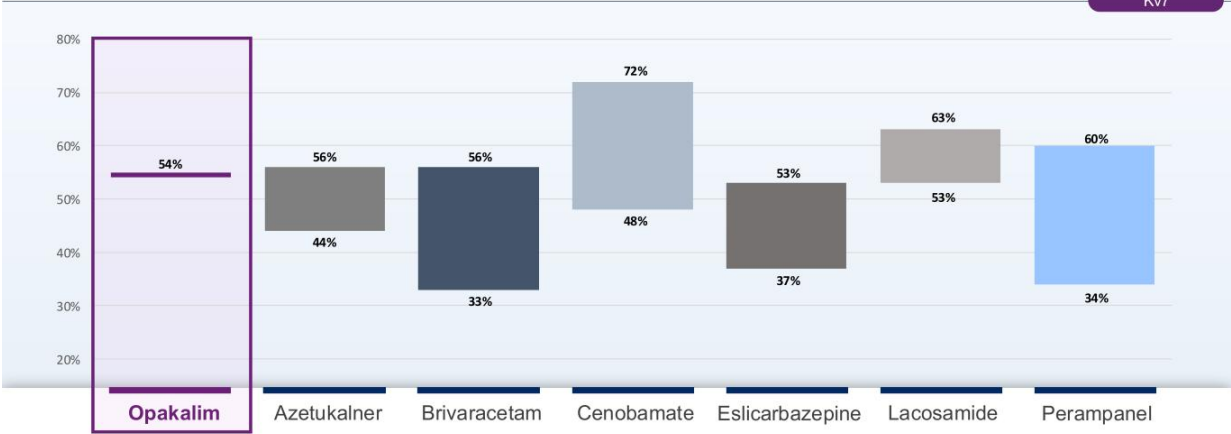
Kv7



Opakalim ongoing focal epilepsy open-label preliminary data 1H 2026; Azetukalner data from Open Label Study – French. AES 2025. Poster #3.356; Cenobamate, lacosamide and levetiracetam data from Winter. CNS Drugs. 2024.

# 50% Responder Rate in OLE Trials of Several Approved and Investigational ASMs

Kv7



Opakalim ongoing focal epilepsy open-label preliminary data 1H 2026; Hufnagel, Epilepsy Res. 2013; Halmész, Epilepsia. 2010; Strzelczyk, Epilepsia. 2021; Ben-Menachem, Epilepsy Res. 2021; O'Brien, Epilepsia. 2020; Klein, Neurology. 2022; Strzelczyk, Expert Rev Clin Pharmacol. 2015; Husain, Epilepsia. 2012; French, J. Epilepsia Open. 2025; Rektor, Epilepsia. 2020.

**KEY POINT** Opakalim OLE preliminary efficacy outcomes fall within reported range of responder rates for other ASMs in OLE trials

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# Opakalim Is Easy-to-Use With a Projected Favorable Tolerability Compared to Approved ASMs

Kv7

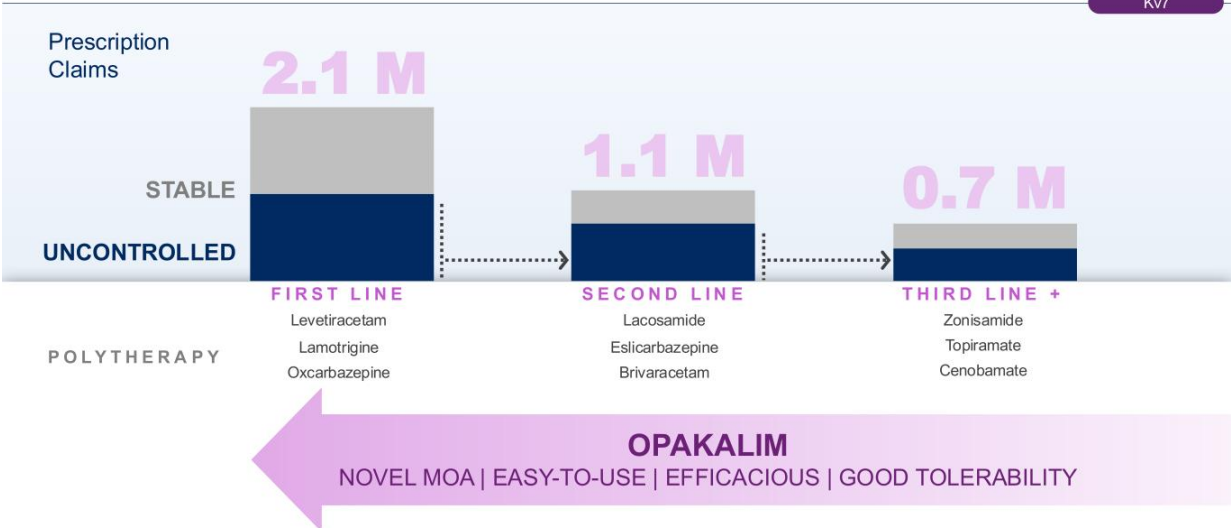
		No titration	Favorable CNS tolerability	Low neuropsychiatric AEs	Low metabolic / electrolyte AEs	Low SJS or DRESS risk
1	Lamotrigine	XX	✓	✓	✓	XX
	Levetiracetam	✓	✓	X	✓	~
	Oxcarbazepine	X	X	✓	X	X
2	Lacosamide	X	✓	✓	✓	✓
	Eslicarbazepine	X	X	✓	X	~
	Brivaracetam	~	X	X	✓	✓
3	Zonisamide	X	X	X	X	✓
	Cenobamate	XX	X	✓	✓	XX
	Topiramate	X	X	X	X	✓
Opakalim (Kv7)		✓	✓	✓	✓	✓

✓ Favorable    ~ Variable    X Unfavorable    XX Very Unfavorable

AE, Adverse Event; SJS, Stevens-Johnson Syndrome; DRESS, Drug Reaction with Eosinophilia and Systemic Symptoms

# Opakalim Offers Potential To Address Unmet Needs in Epilepsy with Attractive Attributes for Epileptologists and General Neurologists

Kv7



Forian claims data: diagnosis codes G400, G401, G402; prescribed ASM medications; dataset timeframe January 1, 2016 to June 30, 2022; US KOL Market Research 2026.



*If Opakalim tolerability seen in early studies is maintained, that would be a huge differentiator in clinical practice. That was the case with Keppra – it seemed to be as effective but so much better tolerated than other alternatives.*



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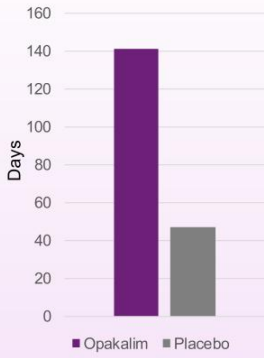
Epilepsy Summary



DAYS  
MATTER™

# Opakalim Continues To Demonstrate Encouraging Results in Epilepsy

Kv7

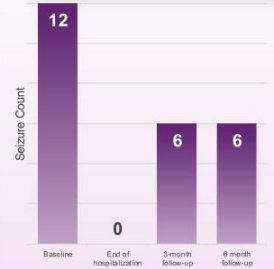


**54% of subjects showed 50% Responder Rate**

OVER ANY CONSECUTIVE 6-MONTHS (n>100)

Adverse Event	Opakalim
Headache	5.7%
Nasopharyngitis	5.7%
Seizure	4.3%
Dizziness	4.3%
Fatigue	3.7%
Fall	3.7%
Upper Respiratory Tract Infection	3.7%
Back Pain	3.4%
Insomnia	3.4%
Nausea	3.1%
Diarrhea	3.1%

**50% reduction in seizures**



## IGE RCT

Promising efficacy and safety data in IGE with generalized tonic-clonic seizures

## FOCAL EPILEPSY OLE

Efficacy signal observed in focal epilepsy OLE falls within reported range of 50% responder rates for other ASMs in OLE trials

## OPAKALIM 75 MG

Continues to be exceptionally well-tolerated in focal epilepsy OLE

## PATIENT WITH KCNQ2-DEE

Transitioned from 1<sup>st</sup> gen Kv7 to opakalim with clinical stability & ongoing seizure control for 6+ months



**Steven Dworetzky, PhD**  
*Senior Vice President,  
Kv7, Strategy & Development*

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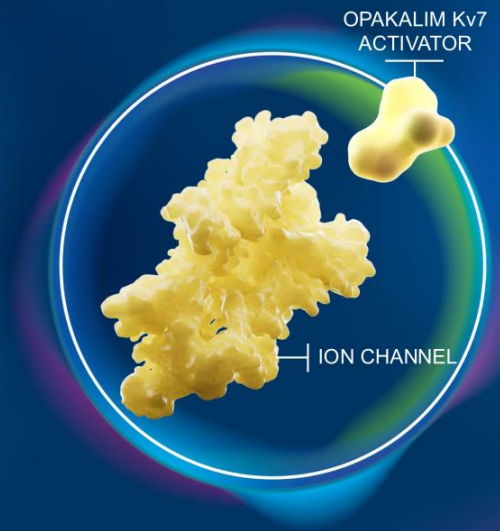
## Opakalim: Selective Kv7 Activation for Pain and Tinnitus

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# Kv7 Activation for the Treatment of Pain



# Inherited Erythromelalgia: Disease Model To Study Opakalim for the Treatment of Neuropathic Pain

**INHERITED DISEASE:** Caused by gain of function mutations in NaV1.7 channels<sup>1</sup> resulting in hyperexcitability of sensory neurons. Characterized by severe chronic neuropathic pain, episodic pain attacks, skin erythema and sleep disturbances.<sup>1</sup>

**GENETIC RESILIENCE MECHANISM:** Some individuals with IEM are resilient to pain compared to family members carrying the same mutation. Due to a second GoF mutation in the Kv7.2 or Kv7.3 genes, dampening neuronal hyperexcitability.<sup>2</sup>

**THERAPEUTIC HYPOTHESIS:** Increased excitability of sensory neurons is key to pathological pain. Kv7.2/7.3 channels control sensory dorsal root ganglion intrinsic excitability. **Opakalim targets neuronal excitability centrally and peripherally.**



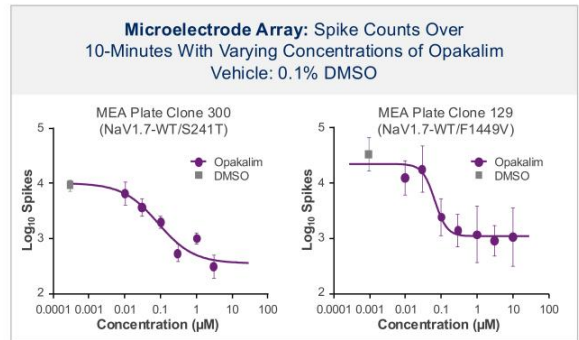
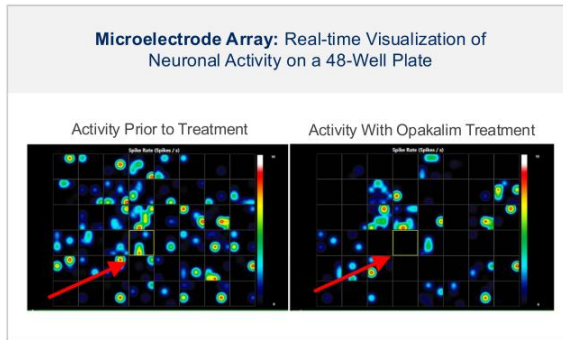
1. McDonnell. Brain. 2016. 2. Yuan. Brain Commun. 2021. 3. Davis. Arch Dermatol. 2000 (image). IEM inherited erythromelalgia; GoF gain of function.



**Human genetics validates Kv7 activation as a “protective” mechanism in IEM and provides rationale for Kv7 activation as a treatment for pain**

# Opakalim Treatment of iPSC-Derived Sensory Neurons From IEM Patients

- Data visualized as color heatmap corresponding to number of spikes detected for each electrode during the preceding second
- Evaluating spontaneous neuronal firing
- The well indicated by a red arrow was exposed to opakalim 1  $\mu\text{M}$



IASP 2024, Amsterdam, Netherlands 2024.



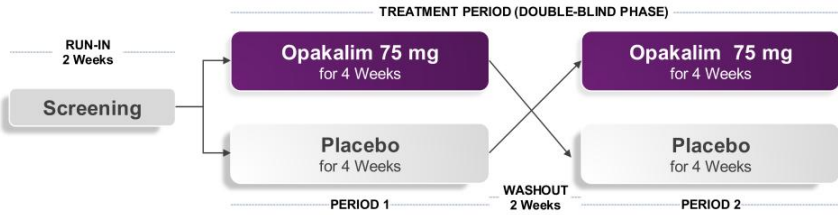
Opakalim reduces neuronal spike activity with sub-micromolar IC<sub>50</sub>s in a “pain in a dish model”

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# Pilot Translational Trial of Opakalim in Inherited Erythromelalgia



**KEY STUDY DETAILS**

**Study Design:** Randomized, double-blind, placebo-controlled, 2-way crossover design  
**Population:** Participants with IEM, with NaV 1.7 GoF mutations w/o concomitant Kv7 mutations  
**Sample size:** 5 Participants  
**Endpoints:** Area under the curve of pain; frequency, intensity, and duration of pain attacks

**BREAKING NEWS**

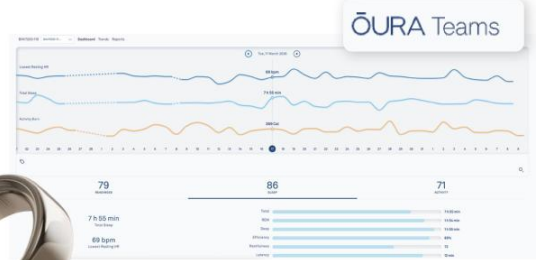
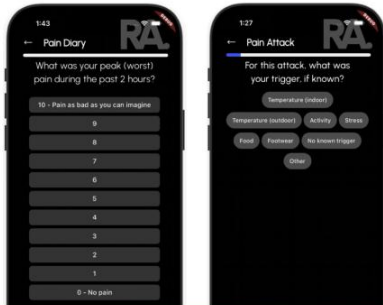
- Trial initiated in 1Q 2026
- Subjects enrolled in the trial were iPSC donors for the in vitro experiments

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# Leveraging Innovative Technologies To Monitor IEM Symptoms

## Research Ally Phone App

Systematically profiling fluctuating **PAIN** throughout the day



## Oura ring

Monitoring effects of improved pain management on **SLEEP**

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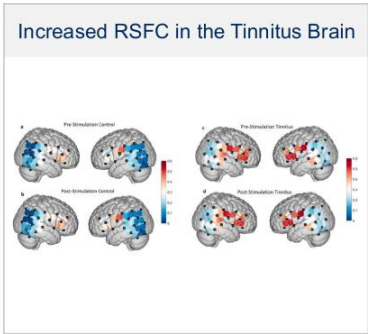
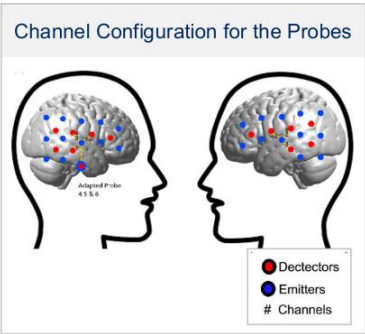
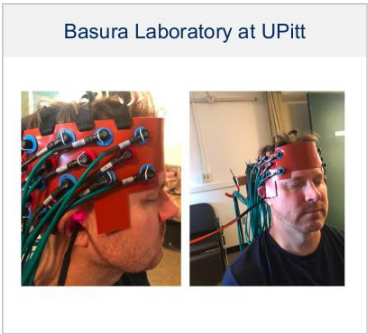
Kv7 Activation for the  
Treatment of Tinnitus



DAYS  
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# Investigator Sponsored Trial Planned To Test Opakalim for the Treatment of Tinnitus Using Functional Near-Infrared Spectroscopy (fNIRS)



RSFC, Resting-state functional connectivity; San Juan. Neuroreport. 2021.

**KEY POINT** fNIRS uses near-infrared light to measure hemoglobin & hemodynamic changes in brain regions – a validated proxy for neural activity ideal for tinnitus research

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# Panel

MODERATOR



**Tessa Romero**

*Equity Analyst*

J.P.Morgan

PANELISTS

**Aline Herlopian, MD**

*Neurologist and Associate Professor of Neurology  
Yale School of Medicine*

**Matthias Koepp, MD, PhD**

*Professor of Neurology  
University College London*

**Jason Lerner, MD**

*Medical Director  
Biohaven*

**Steven Dworetzky, PhD**

*Senior Vice President, Kv7, Strategy & Development  
Biohaven*

BHVN  
LISTED  
NYSE

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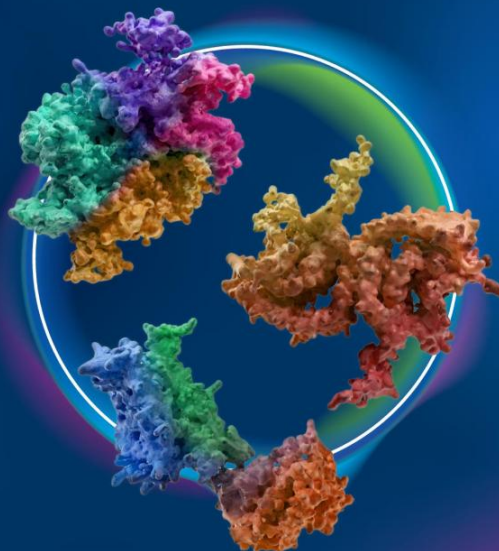
**NEXT-GENERATION CNS  
SMALL MOLECULES**

**BHV-8100:** Neurodegenerative  
and Retinal Diseases

**BHV-1955:** Tinnitus

**BHV-8200:** Parkinson's Disease

**BHV-2120:** Epilepsy, Pain





**Pierre Magistretti,  
MD, PhD**  
*Ibn Sina Distinguished Professor*



**Lawrence C. Newman,  
MD, FAHS, FAAN**  
*Director, Brain Health  
Atria Health and Research Institute*



**Bruce D. Car, DVM,  
PhD, DACVP**  
*Chief Scientific Officer*



**Bharat Awsare, MD**  
*Executive Medical Director*



Next-Gen Neuroscience Small Molecules





**Pierre Magistretti,  
MD, PhD**  
*Ibn Sina Distinguished Professor*

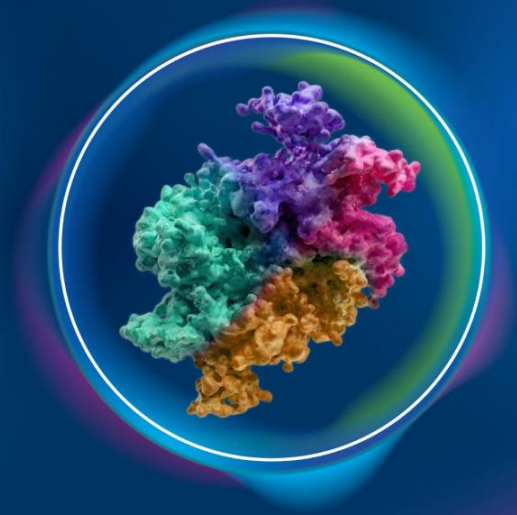


# BHV-8100: PKM2 Activator for Neurodegenerative and Retinal Diseases

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Disease Associated  
With Brain Metabolism  
and Aging



# The Brain Has Considerable Energetic Requirements

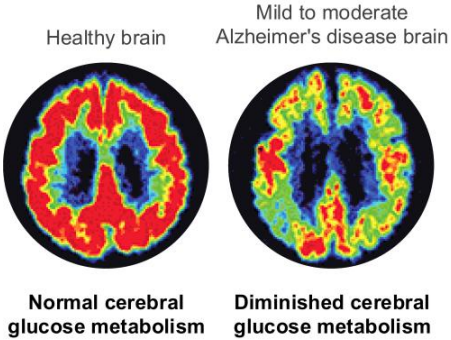
DISCOVERY





Louis Sokoloff

FDG-PET showing areas of cerebral glucose metabolism<sup>1</sup>



Source: Neurochemical Research, Vol. 24, No. 2, 1999, pp. 321-329  
1. Small, Proc Natl Acad Sci USA, 2000. Copyright 2013 National Academy of Sciences, U.S.A

## Techniques for Functional Brain Imaging

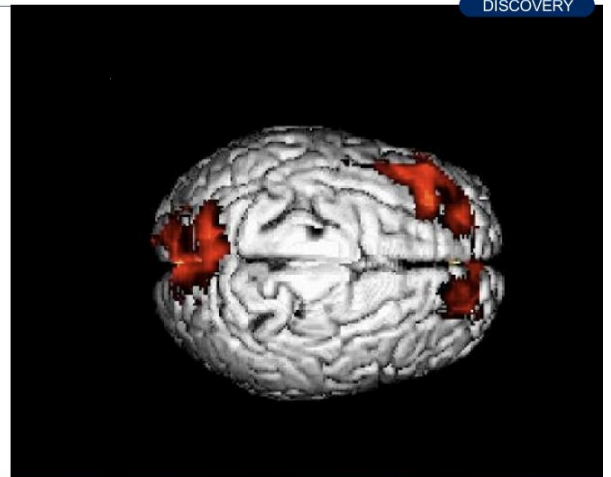
DISCOVERY

### Positron Emission Tomography (PET):

- $^{18}\text{F}$ -deoxyglucose
- $^{15}\text{O}_2$
- $\text{H}_2^{15}\text{O}_2$

### Functional MRI (fMRI):

- Change in the ratio of oxy-/deoxy hemoglobin



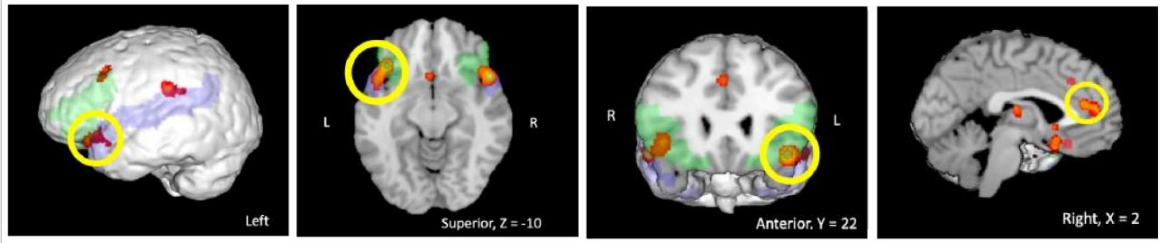
They detect signals related to energy consumption

# Brain Aging and Energy Metabolism

DISCOVERY

- Aging leads to **reduction in brain glucose utilization**, i.e., **brain hypometabolism**, as revealed by reduced FDG-PET signal<sup>1</sup>
- Clinical studies showed positive correlation between brain **glucose metabolism** measured with FDG-PET and **cognitive performances**<sup>2,3</sup>

Meta-Analysis Showing Frontal and Temporal Glucose Hypometabolic Clusters in Aging Individuals (21 Clinical Studies, Total 911 Participants)<sup>1</sup>

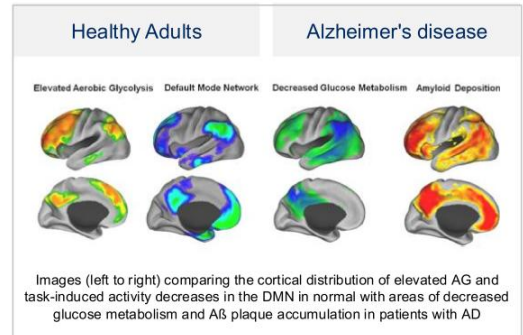
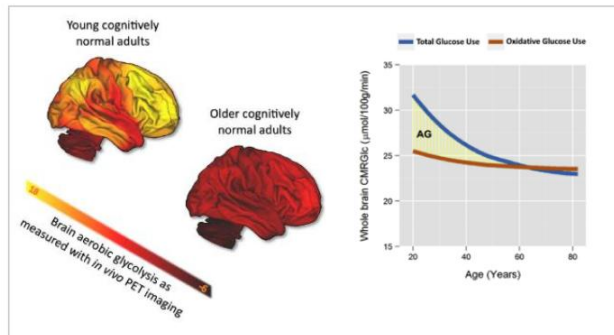


1. Deery. Human Brain Mapp, 2023. 2. Matthews. Alzheimer's Dement. 2021. 3. Matthews. Brain, 2021.

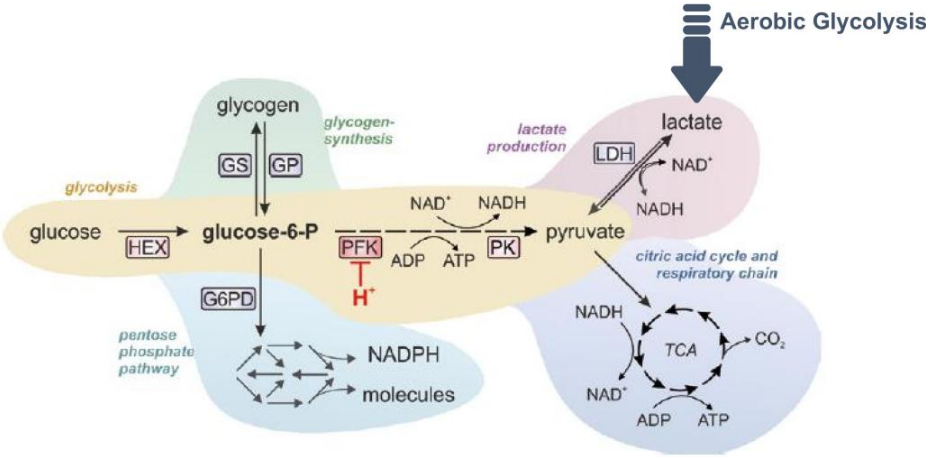
# Aerobic Glycolysis Is Reduced in the Aging Brain

DISCOVERY

- **Aerobic glycolysis**, the metabolic process of glucose primarily promoted by astrocytes in the brain, is reduced in the aging brain<sup>1</sup>
- Reduction of aerobic glycolysis is pronounced in frontal and temporal regions<sup>2</sup>



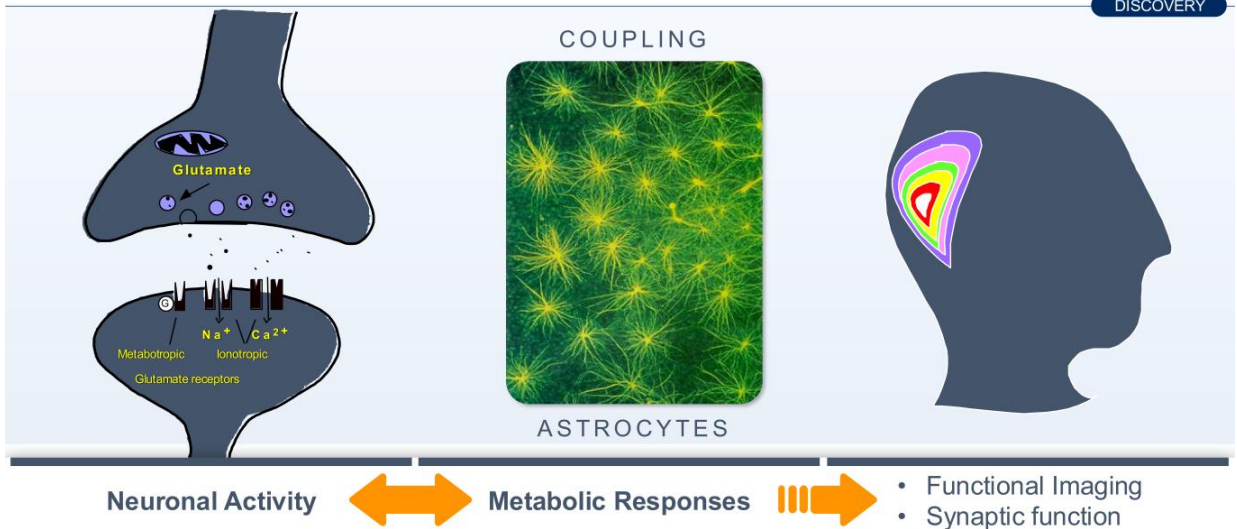
1. Goyal. Cell Metab. 2017. 2. Viassenko. Clin Transl Imaging. 2015.



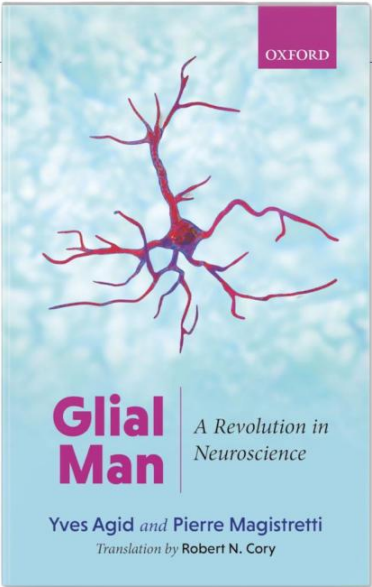
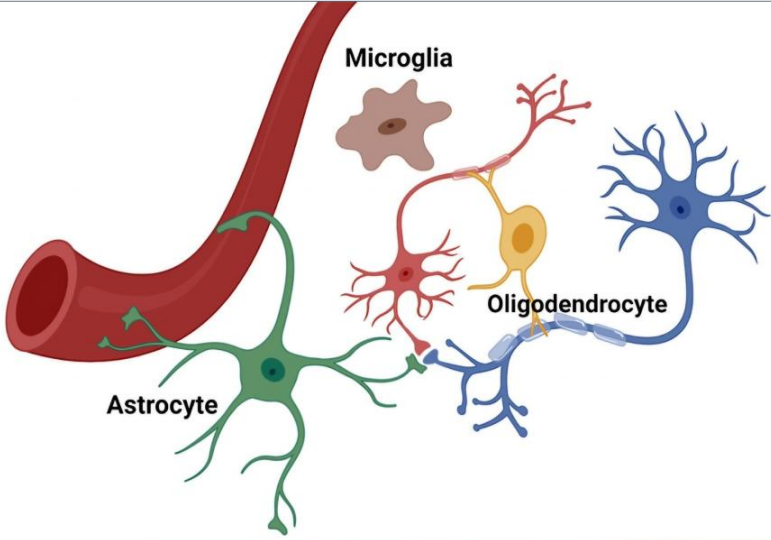
Source: Dietmer, 2017.

# Which Are the Cellular and Molecular Mechanisms Underlying the Coupling of Synaptic Activity With Metabolic Responses?

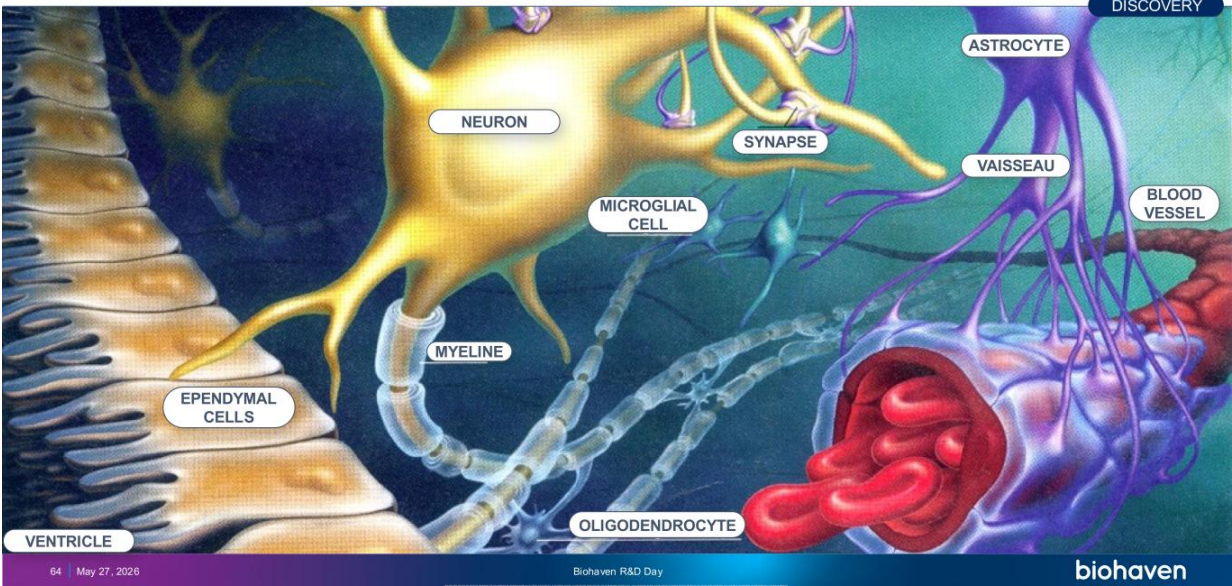
DISCOVERY



Glia: "Glue"

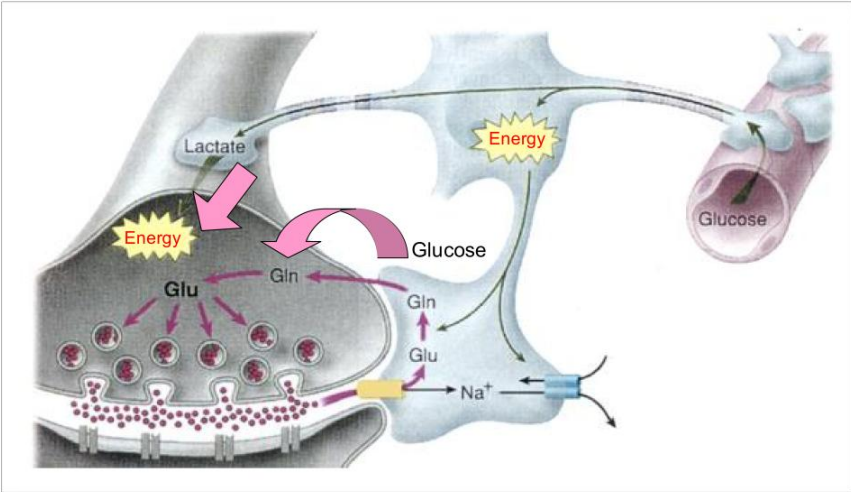


# Neuron – Astrocyte Relationship



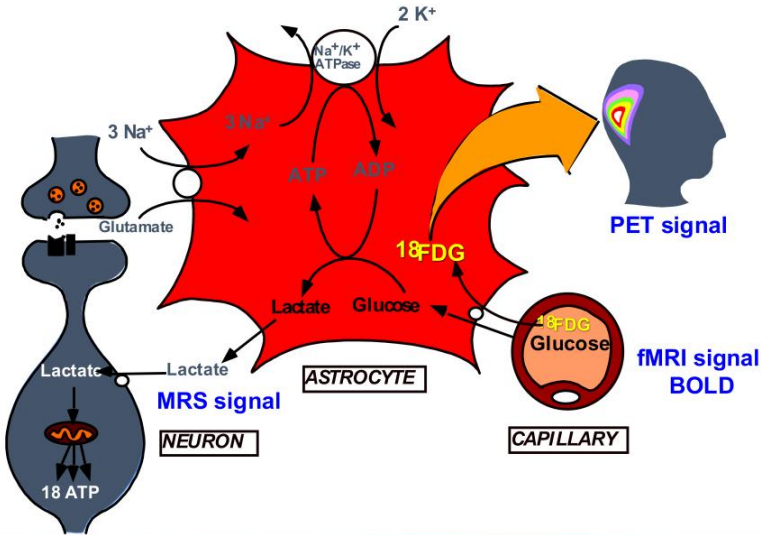
# The Astrocyte-Neuron Lactate Shuttle (ANLS)

DISCOVERY



Modified from Magistretti, Science, 1999.

# Role of Astrocytes in Brain Imaging Signals



## Maintaining Brain Energy Metabolism Is Key to Brain Health

**Normal Brain Energy Metabolism**  
=  
**Healthy brain**

Neurons are protected and resilient to insults such as oxidative stress and inflammation

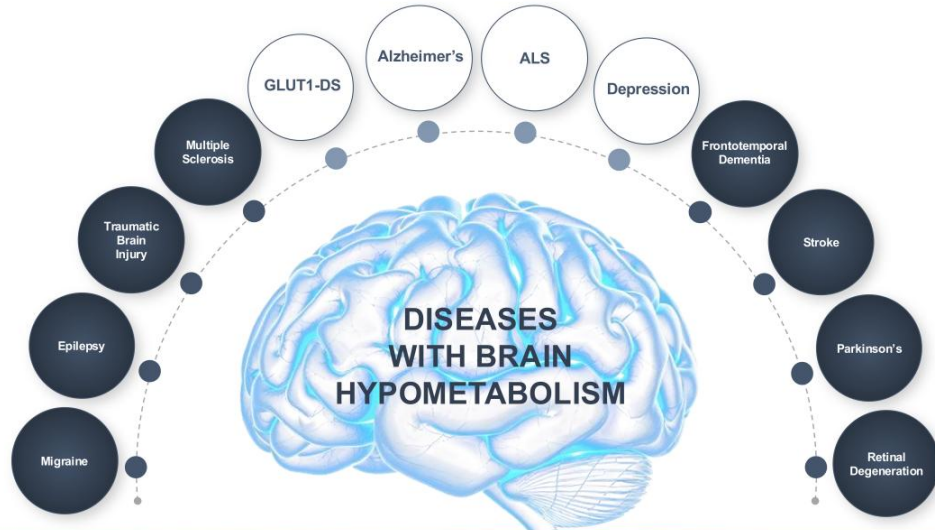
**Brain Hypometabolism**  
=  
**Pathological Brain**

Neurons are vulnerable to insults, leading to disease, aging and cognitive impairment



# Targeting Brain Hypometabolism as a Therapeutic Approach

DISCOVERY



## Targeting Hypometabolism as a Therapeutic Approach

---

DISCOVERY

- Astrocytes are the main providers of energy to neurons
- Targeting astrocytic metabolism is a viable therapeutic approach for maintaining cognitive function
- **BHV-8100 provides the first optimized, brain-penetrant clinical candidate and has entered Phase I in 2Q 2026**



**Bruce D. Car, DVM,  
PhD, DACVP**  
*Chief Scientific Officer*

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**Bharat Awsare, MD**  
*Executive Medical Director*

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**BHV-8100: Preclinical and Clinic**

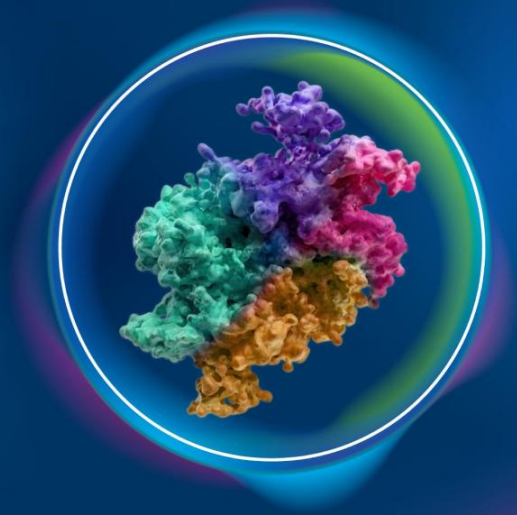
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**BHV-8100**

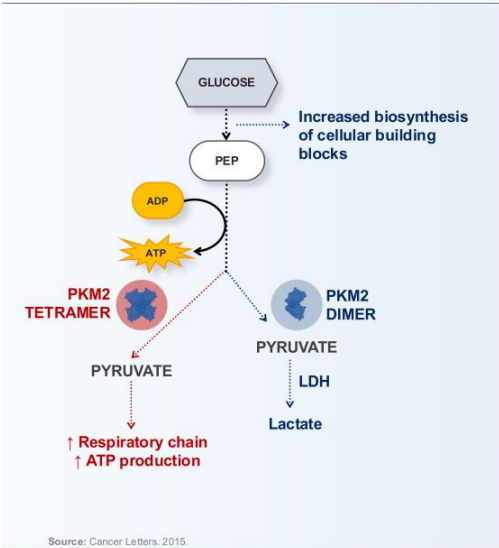
**Pyruvate Kinase M2  
Activator (PKM2)**

*Corrects brain hypometabolism*



# Activation of Pyruvate Kinase Increases Glucose Consumption and ATP Production While Reducing Deleterious Metabolism

DISCOVERY



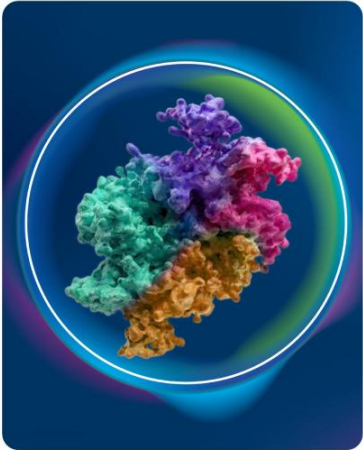
Source: Cancer Letters, 2015.



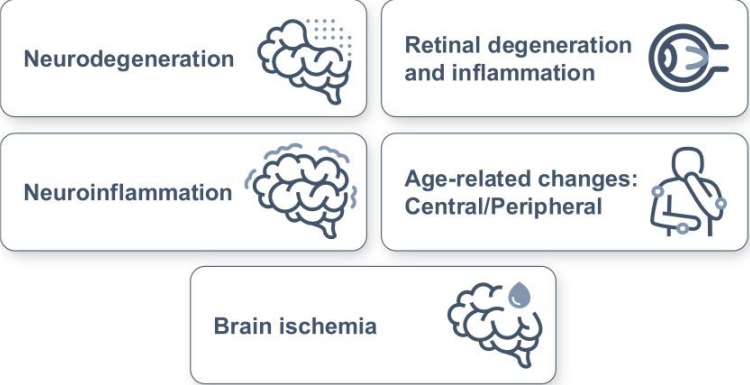
- BHV-8100 stabilizes enzymatically active tetramer state
- Increased energy in CNS
- Decreased neuroinflammation, angiogenesis and fibrosis
- Reduced deleterious metabolic intermediates

# BHV-8100: First Brain-Penetrant PKM2 Activator

DISCOVERY



Oral small molecule medicine with multiple potential indications

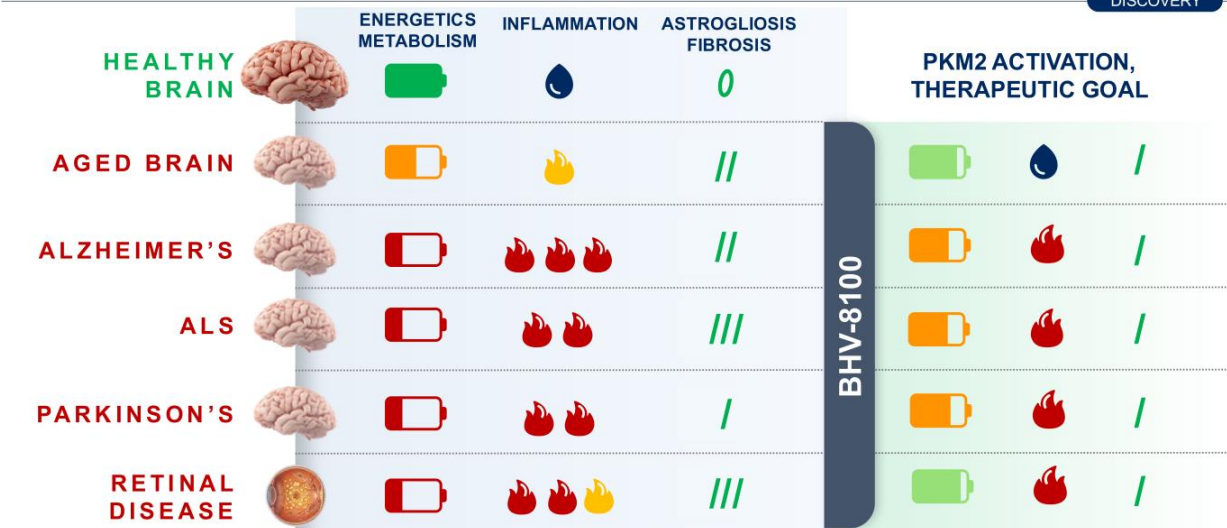


**KEY POINT** First-in-human dosing at pharmacologically relevant doses initiated 2Q 2026

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# Stimulation of Brain Energetics, Reprogramming Metabolism and Reduced Inflammation Is the Future of CNS Disease Treatment

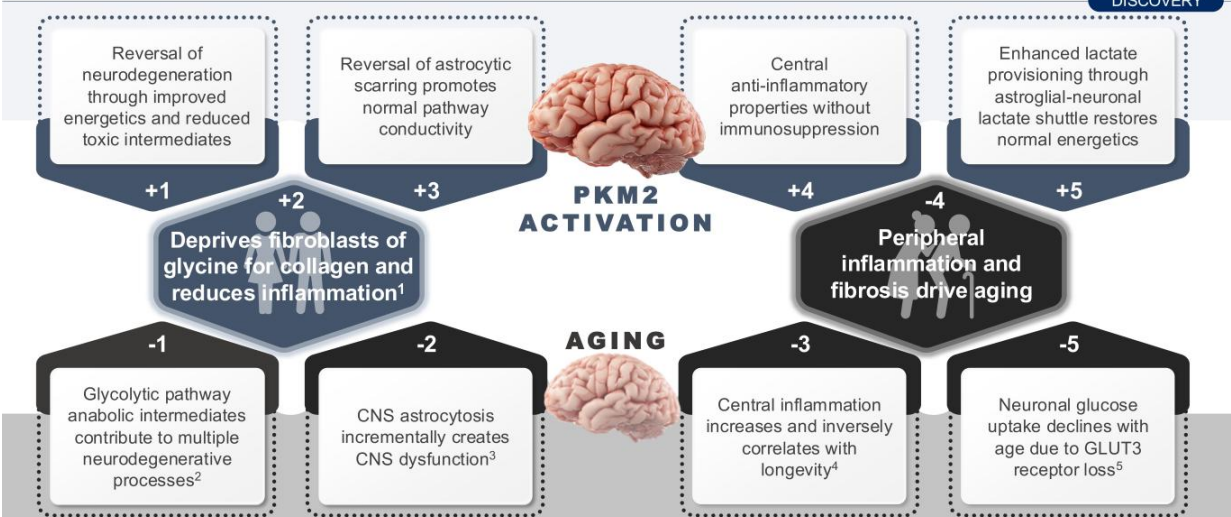
DISCOVERY



1. Yang. Cells. 2025. 2. Klemmensen. Neurotherapeutics. 2024. 3. Wadani. Naunyn-Schmiedeberg's Arch Pharmacol. 2025.

# Central/Peripheral PKM2 Activation: A Perfect Constellation of Anti-Aging Properties

DISCOVERY

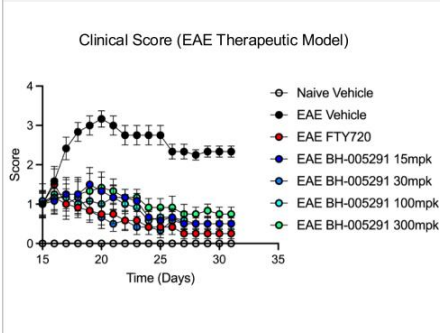


1. Selman, Aging Res Rev. 2021. 2. Zhang, Mol Neurobiol. 2024. 3. Cohen, Aging Cell. 2019. 4. Sparkman, Neuroimmunomodulation. 2008. 5. Oka, Science. 2021.

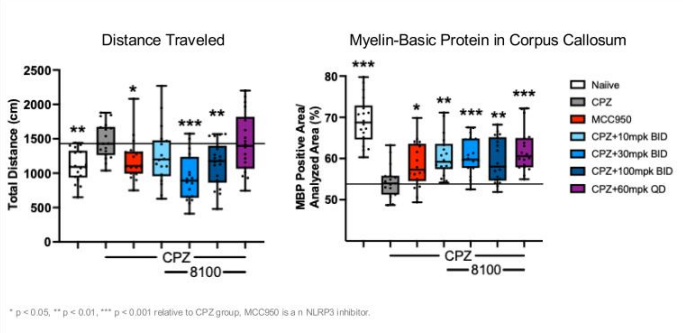
# BHV-8100: Experimental Mitigation of Neuroinflammation and Restoration of Energetic Deficiency

DISCOVERY

## BHV-8100 Shows Robust Reduction of Disease Burden in EAE



## BHV-8100 Demonstrates Striking Efficacy in Cuprizone Model

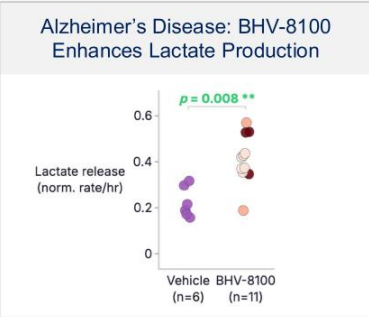
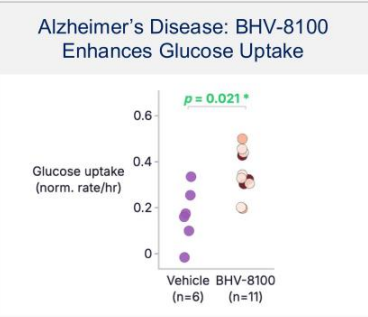
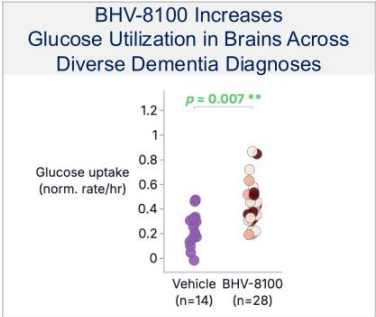


BHV-8100 demonstrates anti-inflammatory efficacy and a strong ability to promote oligodendroglial function in models of EAE

# BHV-8100 Demonstrates Sustained Efficacy in Human Brains With Documented Alzheimer's Disease and All-cause Dementia

DISCOVERY

Reperfused human brains (Brainex™) allow precise study of brain penetrance, pharmacology, pharmacokinetics, pharmacodynamics and biomarkers in brains with documented diseases

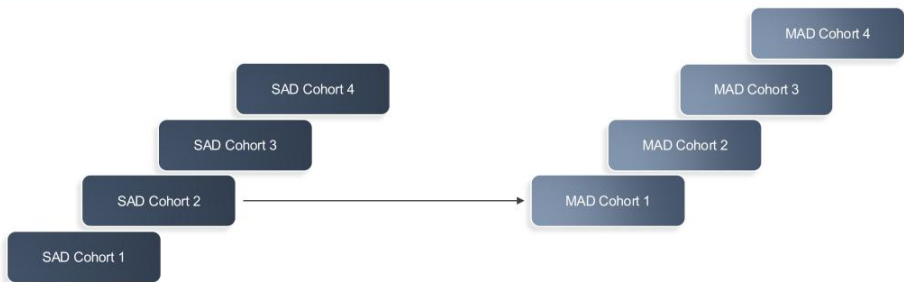


**KEY POINT** Precise determinations of brain penetrance and dose-response pharmacology confirm efficacy and guide human dosage

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# Open Label, Placebo-Controlled FIH SAD/MAD Study To Evaluate Safety, Tolerability and PK of BHV-8100 in Healthy Adults

DISCOVERY



## KEY STUDY DETAILS

**Population:** Male and non-childbearing female healthy adults

**Treatment:** BHV-8100 in escalating single and multiple doses vs. matching placebo (6:2 ratio at each cohort)

**Key Objectives:** PRIMARY: Safety and tolerability; SECONDARY: PK in plasma. CSF concentration (MAD Cohorts only)

\*Representative schema

**BREAKING NEWS**

**BHV-8100 achieves clinical milestone with first human dose in SAD/MAD study 2Q 2026**

## Early FIH Data of BHV-8100 in SAD Shows Safety and Tolerability in Healthy Participants

DISCOVERY

No SAEs or severe AEs



Most AEs were mild and resolved spontaneously



No clinically significant changes in ECG



No clinically significant trends in safety labs including LFTs



Preliminary data from ongoing study as of 22-May-2026.



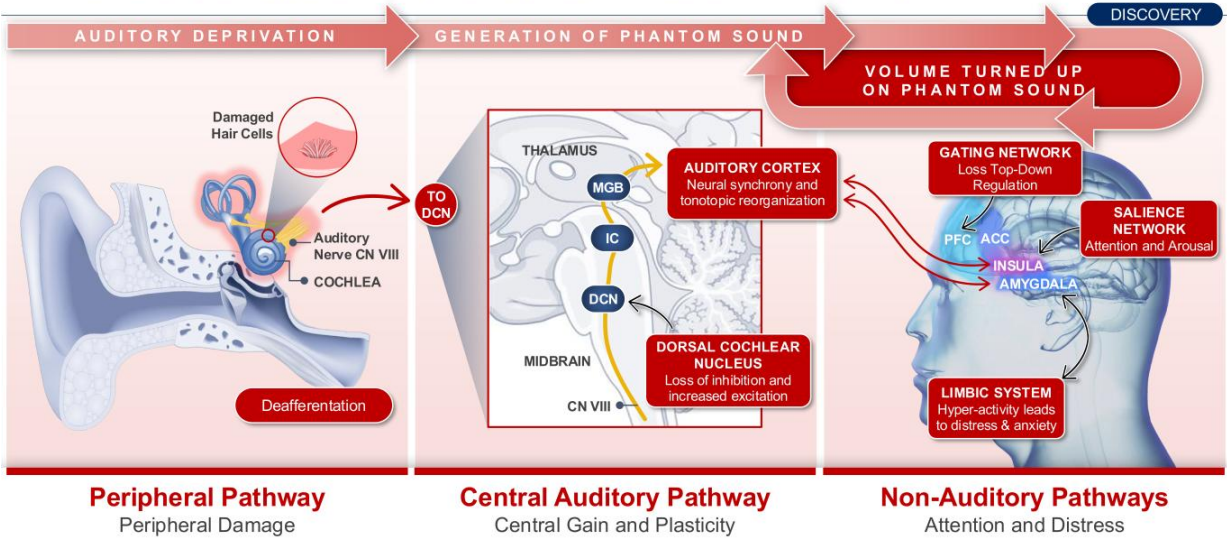
**Lawrence C. Newman,  
MD, FAHS, FAAN**  
*Director, Brain Health  
Atria Health and Research Institute*

**atria** Health and  
Research Institute

**BHV-1955: Tinnitus**

**biohaven®**

# Tinnitus Is a Sound Volume Control Problem in the Brain



# Tinnitus: There Is No FDA-Approved, Mechanism-Based Pharmacologic Therapy Despite High Prevalence

DISCOVERY

## Large Patient Population



- **2 million chronic tinnitus patients** have severe, debilitating disease that requires treatment
- **120 million worldwide**
- **Risk factors:** hearing loss, presbycusis, exposure to loud noises, medications, head and neck injuries, infections

## Debilitating Symptoms



- **Phantom noise that can not be ignored**
- **Severe tinnitus has debilitating consequences:** anxiety, difficulty concentrating, sleep impairment, social isolation, cognitive impairment, depression and increased risk of suicide

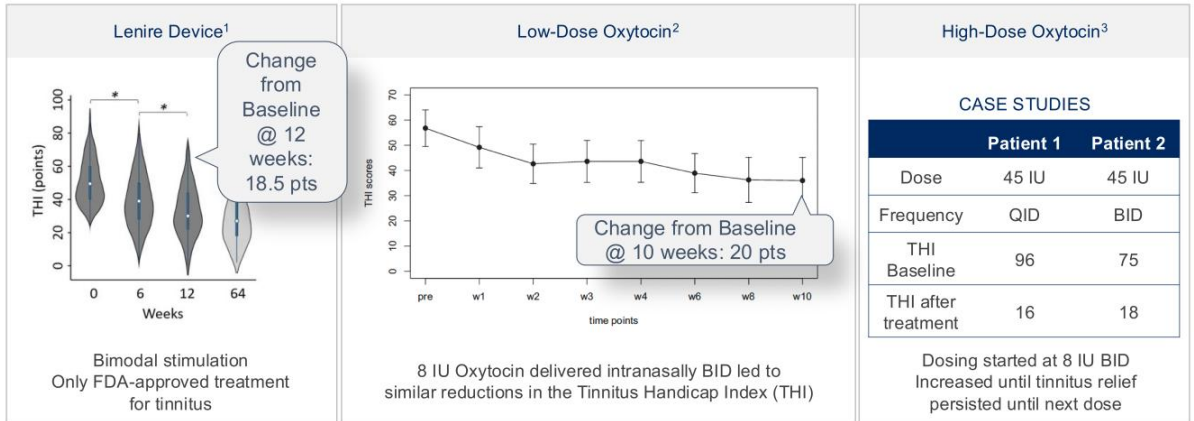
## Limited Treatment Options



- **Hearing aides and sound therapy:** exposure to sound to mask phantom sound or reverse neural changes
- **Behavioral Therapy:** improve well being and quality of life
- **Medications:** There are no FDA-approved medications specifically for tinnitus

# Clinical Evidence: Oxytocin Receptor Agonism Reduces Tinnitus Severity

DISCOVERY



1. <https://www.nature.com/articles/s41598-022-13875-x>. 2. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5613090/>. 3. NCT04210310 Clinical Research Protocol.

**KEY POINT** Increasing dose and frequency of oxytocin extends duration of tinnitus symptom improvement

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## Patient Testimonials

DISCOVERY

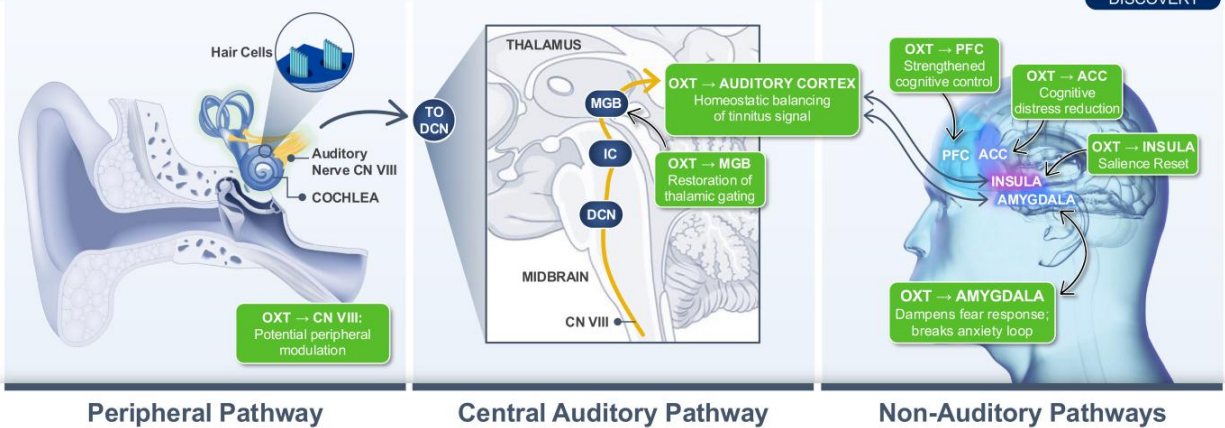
**“** BAROTRAUMA  
*My noise was so bad, that for two years I thought I lived on the deck of an aircraft carrier and constantly ideated because of it. I went to 14 ENTs and acupuncturists and cranial sacral all over the country and nothing worked. Then one day **Dr. Newman gave me a nose spray, and the sound went to whisper or disappeared on most days, and my life returned to normal.*** **”**

**“** IED EXPLOSION IN IRAQ  
***It did help. The spray reduced the high pitch frequency of the tinnitus and although it did not resolve it completely it made it less obvious to me.*** **”**

**“** Ménière's Disease  
*Despite being a physician and consulting several specialists, my tinnitus remained disabling. After intranasal oxytocin, it no longer does. **My tinnitus improved rapidly and substantially. The benefit has been sustained, and I have experienced no adverse events.*** **”**

# Oxytocin Tunes Neuronal Response to Phantom Noise

DISCOVERY



Peripheral Pathway

Central Auditory Pathway

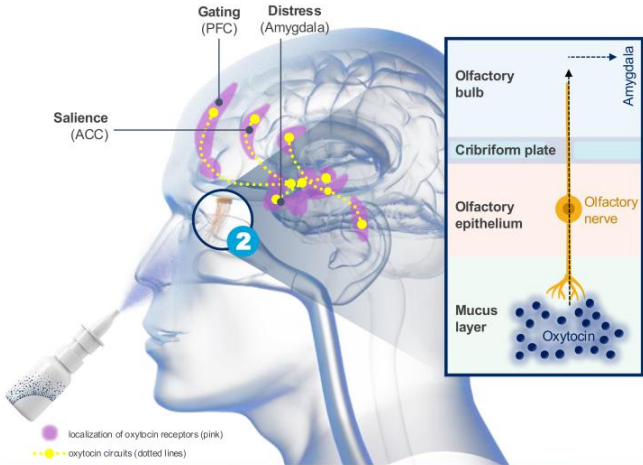
Non-Auditory Pathways

**KEY POINT** Oxytocin calms hyperactive pathways in the brain to turn down the volume on the phantom sound

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# Reformulation Strategy To Deliver High-Dose Oxytocin

DISCOVERY



- 1 Achieve room temperature stability to eliminate need for refrigeration
- 2 Ensure efficient deposition to the olfactory epithelium to bypass the blood brain barrier
- 3 Reduce mucosal clearance and nasal leakage
- 4 Reduce dosing frequency

**KEY POINT** BHV-1955 is formulated to deliver oxytocin to brain regions impacted by tinnitus

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# BHV-1955: Improved Exposure in Non-Human Primates Over Clinically Used Formulation

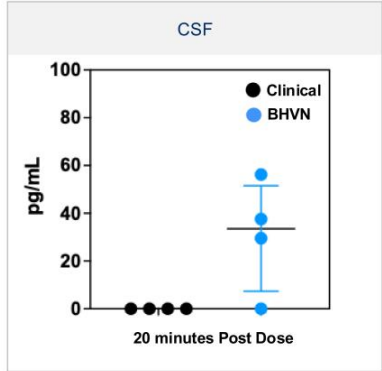
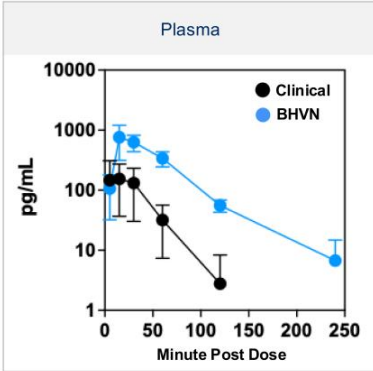
DISCOVERY

## STUDY DESIGN

Test Articles and Formulations:

- **Clinical Formulation:** Formulated with mucolox
- **BHVN Formulation**

Dosing: Single dose IN, 48 IU  
 Subjects: n=4 non-naïve male cynomolgus macaques (7-8 kg)  
 Blood collection: Up to 4 hours  
 CSF collection: 20 minutes post dose

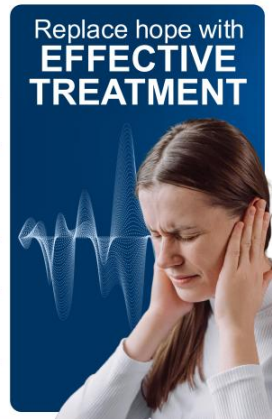


Formulation	Plasma C <sub>max</sub> (pg/mL)	Plasma AUC <sub>last</sub> (min*pg/mL)	Plasma T <sub>max</sub> (min)	Plasma T <sub>last</sub> (min)	CSF Concentration @ 20 min (pg/mL)
Clinical Formulation	191	12400	33.8	150	0; Detected in 0/4 animals
BHVN Formulation	798	39700	18.8	180	41.1; Detected in 3/4 animals

# BHV-1955: Poised To Transform Tinnitus

DISCOVERY

<b>MIGRAINE PRE-CGRP</b> (BEFORE 2018) A proven blueprint	<b>THE PARALLEL IS CLEAR</b>		<b>TINNITUS TODAY</b> The Same Landscape-The Same Opportunity
<ul style="list-style-type: none"> <li>~1 billion people globally</li> <li>~39 million in the US</li> <li>~4 million in the US have chronic migraine</li> </ul>	<b>Massive Unmet Need</b>		<ul style="list-style-type: none"> <li>749 million people worldwide have tinnitus</li> <li>25-40 million people in the US experience tinnitus</li> <li>2 million have severe, debilitating disease in the US</li> </ul>
<ul style="list-style-type: none"> <li>31% reluctant to seek help</li> <li>~40% eligible for prevention, only 17% using it</li> </ul>	<b>Low Treatment-Seeking</b>		<ul style="list-style-type: none"> <li>~20% of tinnitus sufferers seek medical help</li> <li>~34% of all tinnitus sufferers plan to seek help</li> </ul>
Repurposed drugs included anticonvulsants, beta-blockers, antidepressants, blood pressure drugs	<b>Disease-Specific Therapies Lacking</b>	<b>No FDA-Approved Therapies</b>	<ul style="list-style-type: none"> <li>No approved drug (pharmacotherapy) for tinnitus</li> <li>Lenire® Device: FDA-authorized neurostimulation</li> </ul>
"Believed a doctor could not do anything more"	<b>Patients Become Resigned to Suffering</b>		Patients are frequently told "there are no medicines"
Nearly half stopped or modified prevention within 6 months due to poor tolerability or lack of efficacy	<b>High Discontinuation and Dissatisfaction</b>	<b>Limited Support and Access</b>	Only ~50% who discuss tinnitus with a physician receive any <b>treatment recommendation</b>
CGRP approvals (2018) changes migraineurs lives	<b>Breakthrough Changed Everything</b>	<b>Breakthrough Can Change Everything</b>	<b>An effective therapy transforming millions of lives!</b>



**BREAKING NEWS** The tinnitus landscape today mirrors the migraine landscape before CGRP – same scale, same gaps, same opportunity for a breakthrough

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**Bruce D. Car, DVM,  
PhD, DACVP**  
*Chief Scientific Officer*

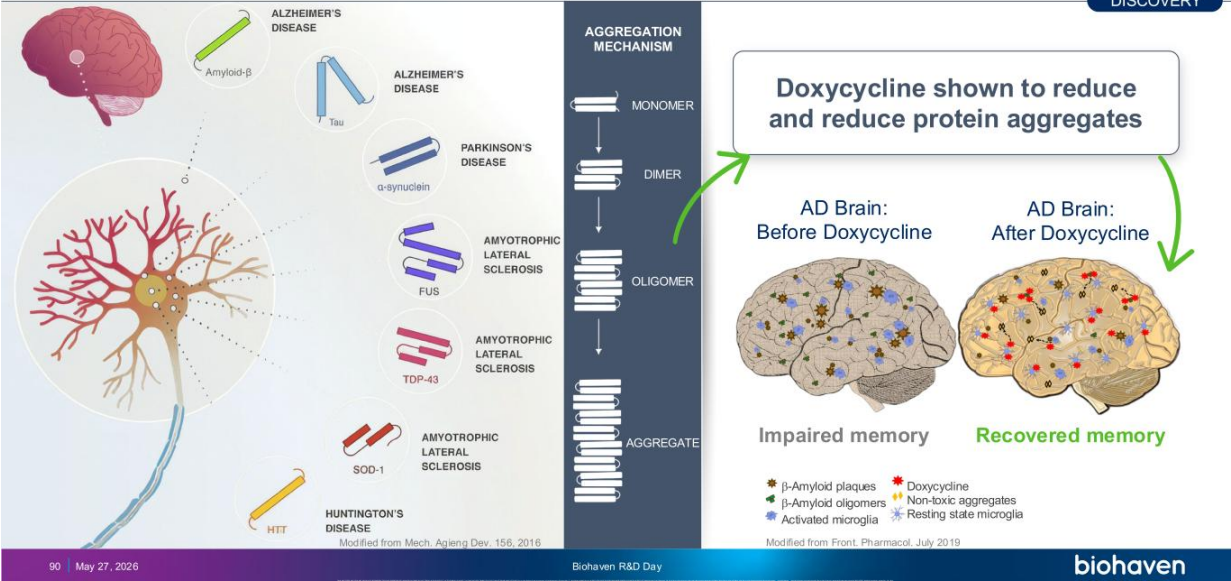
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## BHV-8200: Oral Doxycycline Prodrug Parkinson's Disease

biohaven®

# Doxycycline Reduces Protein Aggregates in Neurodegenerative Diseases

DISCOVERY



# Refining the Favorable Pharmacology of Doxycycline for Parkinson's Disease Treatment With BHV-8200

DISCOVERY

## Abundant evidence exists for doxycycline mitigating Parkinson's disease progression<sup>1,2,3</sup>

- Alpha synuclein aggregation and Lewy body-driven pathology →
  - Neuroinflammation driven by Th17 hypersensitivity →
  - Dopaminergic neurodegeneration secondary to neuroinflammation and toxic aggregates →
- Doxycycline prevents aggregation and disaggregates complexes at relevant concentrations
  - Mitigated Th17-driven neuroinflammation
  - Reduced dopaminergic neurodegeneration secondary to toxic aggregates

## However, doxycycline has undesirable properties, addressed by BHV-8200

- Co-administration with food →
  - Intestinal antibacterial dysbiosis →
  - BID dosing required →
- Eliminates gastric irritation
  - Eliminates antimicrobial activity in the GI
  - Exposure suitable for QD administration

### BHV-8200

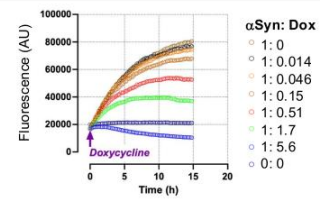
1. La Vitola. Parkinsonism Relat. Disord. 2023. 2. Dominguez-Mejide. Neurobiol. Dis. 2021. 3. Gonzalez-Lizarraga. Sci. Rep. 2017.

# Doxycycline Prodrug Optimized for the Treatment of Parkinson's Disease

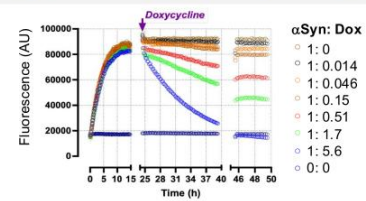
DISCOVERY

- Broad application through inhibition of aggregation:
  - $\alpha$ -synuclein
  - TDP43
  - Amyloid
  - Tau
- BHV-8200 purposefully synthesized to
  - Allow QD delivery
  - Sustain plasma and brain concentrations
  - Removes local (intestinal) anti-bacterial activity
  - Permits 505(b)(2) pathway for registration
- Active agent released by BHV-8200 shown to:
  - Inhibit  $\alpha$ -synuclein aggregation
  - Drives disaggregation of preformed aggregates
  - Confirms optimal deliverable
  - Prodrugs show sustained systemic delivery

## Inhibition of $\alpha$ -synuclein Aggregation



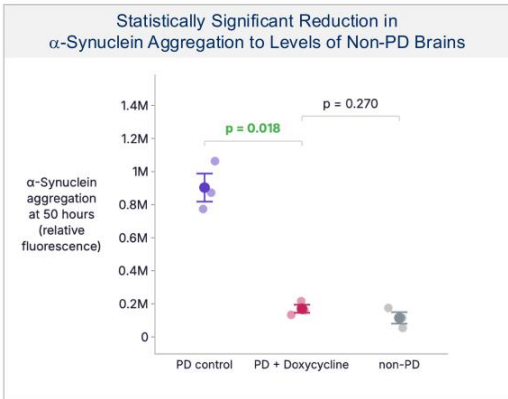
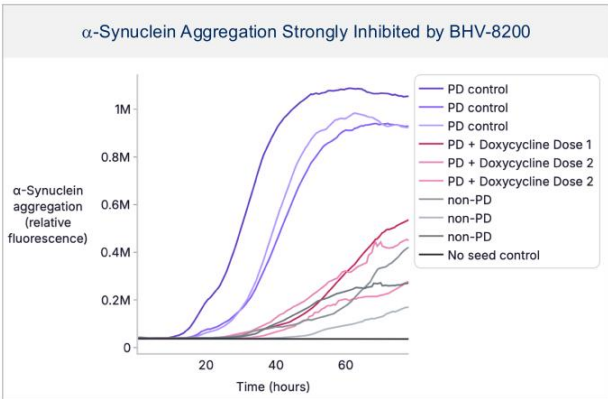
## Disaggregation of Preformed $\alpha$ -synuclein Aggregates



1. La Vitola. Parkinsonism Relat. Disord. 2023. 2. Dominguez-Mejide. Neurobiol. Dis. 2021. 3. Gonzalez-Lizarraga. Sci. Rep. 2017.

# Bexorg BrainEx™: Doxycycline Delivered to Human Brains Reduces $\alpha$ -Synuclein Aggregation to Non-Parkinsonian Levels

DISCOVERY



**KEY POINT** Unexpected potency in human brains precisely confirms safe plasma and brain concentrations for correction of  $\alpha$ -synuclein-driven pathology

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**Bruce D. Car, DVM,  
PhD, DACVP**  
*Chief Scientific Officer*

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TRPM3 CNS Penetrant

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# BHV-2120: CNS Penetrant Molecule for Multiple Indications

DISCOVERY

## Central TRPM3

- Gain-of-function (GoF) variants in TRPM3 cause developmental and epileptic encephalopathies
- TRPM3 activation causes seizures in mice
- TRPM3 inhibition causes potent antiseizure efficacy in a preclinical model
- Brain-penetrant TRPM3 antagonists have the potential to treat a range of seizure, pain and neuropsychiatric disorders

## BHV-2120

- BHV-2120 inhibition causes potent and long-lasting antiseizure efficacy rat maximal electroshock (MES)
- BHV-2120 is a development candidate demonstrating a wide therapeutic index preclinically
- Evaluating in additional seizure and neuropsychiatric models

Source: Roelens. Biochim Biophys Acta Mol Cell Res. 2024.

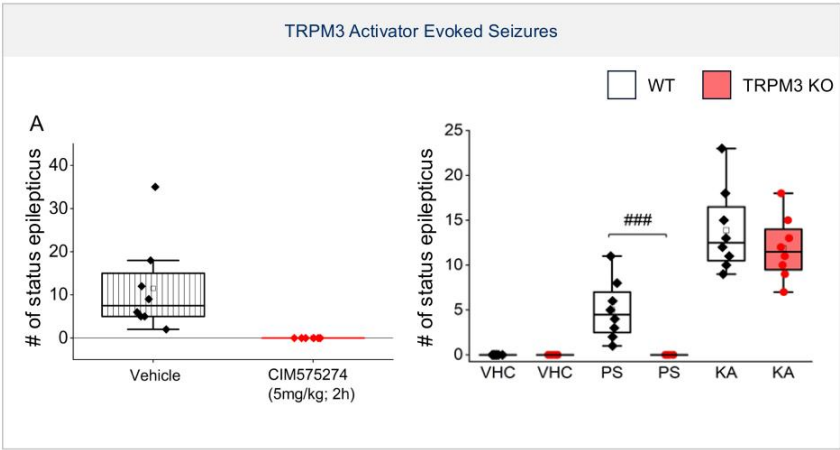
### TRPM3 GoF Mutant-Associated Symptoms

The infographic features a central illustration of a human figure with a semi-transparent body, revealing the internal skeleton and muscles. Surrounding the figure are four callout boxes, each containing a list of symptoms associated with TRPM3 GoF mutant-associated conditions. The boxes are: 'CNS' (top left), 'Sensation' (bottom left), 'Facial changes' (top right), and 'Skeletal anomalies' (bottom right). The background is a dark blue gradient.

- CNS**
  - Intellectual disability (from moderate to severe)
  - Delayed ability to walk
  - Seizures
  - Delayed speech and language development
  - Absent speech
  - Autistic behavior
  - Ataxia
  - Dysmetria
  - Cerebellar atrophy
- Sensation**
  - Altered heat, and/or pain sensitivity
  - Hypotonia
- Facial changes**
  - Broad forehead
  - Micrognathia
  - Short philtrum
  - Strabismus
  - Large earlobe
  - Nystagmus
- Skeletal anomalies**
  - Hip subluxation
  - Scoliosis
  - Patellar dislocation
  - Brachydactyly
  - Valgus foot
  - Rib hypoplasia

# Central TRPM3 Inhibition Prevents Pregnenolone Sulfate-Evoked Status Epilepticus

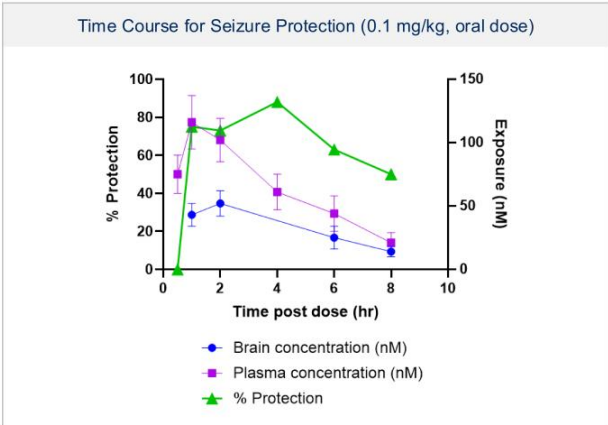
DISCOVERY



- Orally administered BHV-2120 completely blocks (PS)-evoked seizures
- PS evokes status epilepticus in wild-type (WT) mice but not TRPM3 knockout (KO) mice
- TRPM3 underlies PS ability to induce seizures

# BHV-2120: Blocks Maximal Electroshock MES-Evoked Seizures

DISCOVERY



- Rat MES is a highly translatable seizure model
- BHV-2120 is highly potent and effective at blocking MES-evoked seizures
- BHV-2120 effects are long-lasting with substantial efficacy remaining after brain concentration has diminished

# Panel

MODERATOR



**Brian Skorney**  
*Equity Analyst*

BAIRD

PANELISTS

**Pierre Magistretti, MD, PhD**

*Ibn Sina Distinguished Professor  
KAUST*

**Lawrence C. Newman, MD, FAHS, FAAN**

*Director, Brain Health  
Atria Health and Research Institute*

**Bharat Awsare, MD**

*Executive Medical Director  
Biohaven*

**Bruce D. Car, DVM, PhD, DACVP**

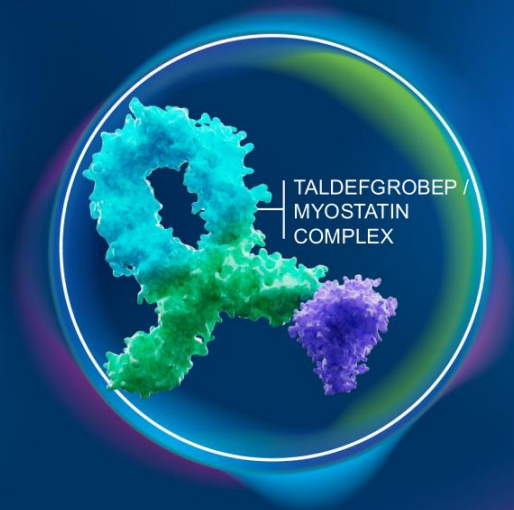
*Chief Scientific Officer  
Biohaven*

BHVN  
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MYOSTATIN ACTIVIN INHIBITOR:  
TALDEFGROBEP ALFA

Targeting High-Quality  
Weight Loss





**Donna H. Ryan, MD**  
*Professor Emerita  
Pennington Biomedical  
Research Center*



**Timothy R. Smith,  
MD, RPh**  
*Senior Medical Director  
StudyMetrix Research*



**Peter Ackerman, MD**  
*Senior Vice President,  
Clinical Development*



Taldefgrobep Alfa for Obesity

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**Donna H. Ryan, MD**

*Professor Emerita  
Pennington Biomedical  
Research Center*



## Body Composition Concerns With Weight Loss Medications

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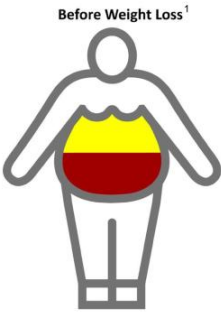
## Donna H. Ryan, MD

<b>Scientific advisor</b>	AbbVie, Altimune, Amgen, AstraZeneca, Boehringer Ingelheim, Biohaven, Calibrate, Carmot/Roche/Genentech, CinRx, Currax, eMed, Epitomee, Fractyl, i2o, ICON, Kailera, Lilly, Nestle, Novo Nordisk, Pfizer, Protagonist, Regeneron, Regor, Rhythm, Souffle Source Bio, Structure Therapeutics, Tenvie, Wondr Health, WW, Zealand
<b>Speaker's bureau</b>	Novo Nordisk, Lilly
<b>Stock options</b>	Epitomee, Calibrate, Roman
<b>DSMB</b>	IQVIA setmelanotide (2); Lilly (1); CinRx (1)

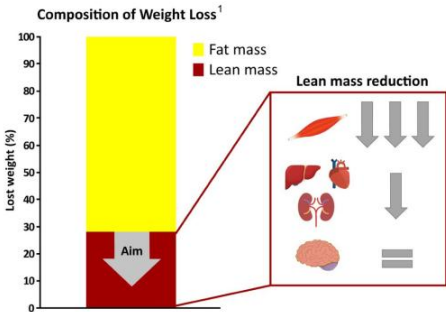
- Growing enthusiasm for robust weight loss achieved with GLP-1, GLP-1/GIP RA medications
  - More patients being treated and achieving **more weight loss, thus lean loss is a growing concern**
- Treatment includes broader patient profiles
  - More older individuals, more patients with chronic disease, many in lower BMI range = **more potential for excessive lean mass loss**
- Emerging new targets with new potential for disease modification (Glucagon, Amylin, Amylin/Calcitonin RAs)
  - Body composition effects are **always** a focus for new agents
- Growing guideline-driven movement for better diagnosis **beyond BMI**, and movement to **treat-to-target anthropometrics**

**THE RESULT:**  
Growing concern for  
body composition  
optimization with  
pharmacotherapies

# The Major Component of Lean Mass Loss Is Muscle



Total body fat percentage can vary in adults with obesity (25-50+%). This percentage increases with age.



15-40% of weight loss due to sustained energy restriction comes from lean mass.

1. Christoffersen BØ. Obesity (Silver Spring). 2022. 2. Mocchiari. BMJ Nutr Prev Health. 2025.

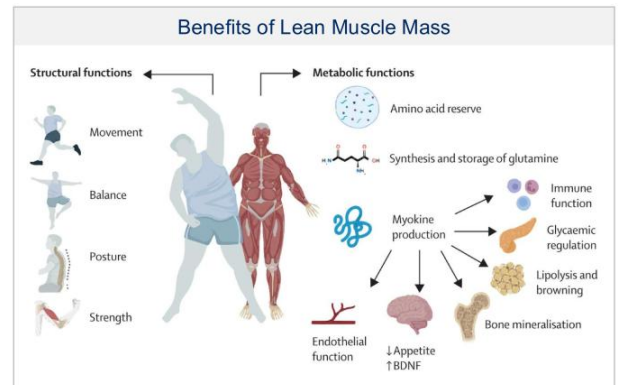
**KEY POINT** Up to 40% of total body weight loss with GLP-1-based therapies is due to reductions in healthy lean mass<sup>2</sup>

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# Lean Muscle Mass Is Critical Determinant of Metabolic Health, Physical Function and Healthy Aging

TALDEFGROBEP

- Muscle mass is important to glucose tolerance, bone density and cognitive function<sup>1-3</sup>
- After 30, adults experience accelerating age-related decline in muscle mass and strength<sup>4</sup>
- Low muscle volume is associated with increased risk for morbidity and mortality, independent of body weight and physical function<sup>5-8</sup>



1. Merz. *Compr Physiol*. 2021. 2. Han. *J Orthop Surg Res*. 2023. 3. Tessier. *JAMA Netw Open*. 2022. 4. Wilkinson. *Ageing Res Rev*. 2018. 5. Linge. *J Cachexia Sarcopenia Muscle*. 2021. 6. Wang. *PLoS One*. 2023. 7. Valenzuela. *BMC Musculoskelet Disord*. 2020. 8. Medical Press. <https://medicalexpress.com/news/2024-05-poor-muscle-health-common-people.html>. Accessed 17-MAY-2026.

**KEY POINT** Excessive lean muscle loss can have significant long-term implications, especially in those at risk for sarcopenia

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# Lifestyle and Novel Pharmacotherapies for Weight Loss Have Not Been Effective in Preserving Muscle Mass

TALDEFGROBEP

## LIFESTYLE

“The problem with exercise is effectiveness, not efficacy”<sup>1</sup>

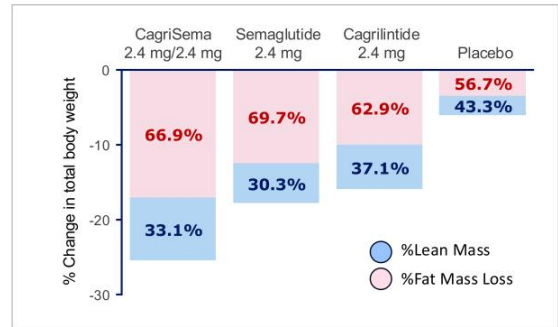
PERSPECTIVE
JAMA

**The Conundrum of Exercise for Weight Management in the GLP-1 Receptor Agonist Era**

Daniel E. Lieberman, PhD; Daniel H. Aslan, PhD; Steven B. Heymsfield, MD

## NEW TARGETS

Amylin Calcitonin Dual Agonist Cagrilintide<sup>2</sup>



1. Lieberman. JAMA, May 2026. 2. Ravussin. 33rd European Congress on Obesity. 2026.

**KEY POINT**

Amylin agonists like cagrilintide have not been effective in sparing lean muscle mass

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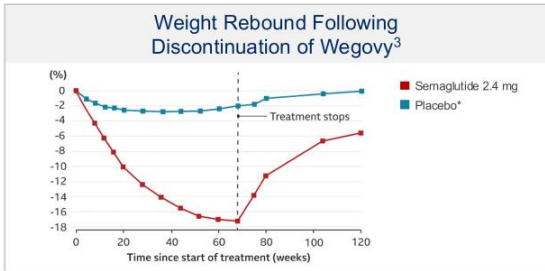
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# Discontinuation of GLP-1 Agonists Is Associated With Rapid Weight Regain, Mostly in the Form of Visceral Fat

TALDEFGROBEP

- Approximately two-thirds of Americans stop GLP-1 therapy within one year of initiation<sup>1</sup>
  - GI-related side effects are the most common reasons for discontinuation<sup>2</sup>
- Approximately two-thirds of lost body weight returns within one year of stopping GLP-1 therapy<sup>3</sup>
  - **After stopping GLP-1 therapy, weight returns in the form of central obesity and visceral adiposity<sup>1</sup>**

Most Common GI-related Reasons for Discontinuation of GLP-1 Therapy <sup>2</sup>	
Reason	Rate
Made me feel sick	64.4%
Made me throw up	45.4%
Caused diarrhea/gas/bloating	26.3%



1. Young. Scientific American. 2024. 2. Sikirica. Diabetes Metab Syndr. Obes. 2017. 3. Wilding. Diabetes Obes Metab. 2022. 4. Pownall. Obesity. 2015.




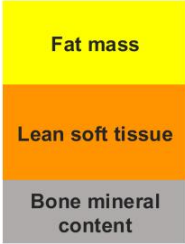



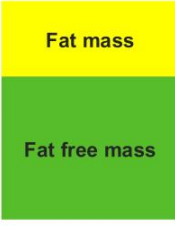
**KEY POINT**

**Weight is regained primarily as fat**  
**In Look AHEAD, a study of >5,000 persons with diabetes, weight regain was 100% fat<sup>4</sup>**

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# State-of-the-Art, In-Clinic Assessment Tools: DEXA, BIA and 3-D DA To Be Validated by REAL Body Study

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	DEXA	BIA	3-D DA
<b>PROS</b>	Accurate bone mass, fat mass, lean mass and regional composition	Accurate extracellular water, intracellular water, total body water	Fat mass, fat free mass circumferences
<b>CONS</b>	Does not measure skeletal muscle, circumferences	Hydration affects accuracy; does not measure bone mineral content, circumferences	Does not measure skeletal muscle, bone mineral content
	 	 	 

McMath. Obesity Reviews 2026

**KEY POINT** Emerging body composition technologies are reshaping how obesity is diagnosed and how treatment success is defined

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# Inhibition of Myostatin + Activin Improves Body Composition Change

TALDEFGROBEP

## EMBRAZE Study (Apitegromab + Tirzepatide) — Change in Baseline Body Composition at Week 24<sup>1</sup>

Body Compartment % (SE)	Apitegromab (10 mg/kg) + Tirzepatide n=43	Placebo + Tirzepatide n=44	Difference, Apitegromab vs. Placebo
%Change in TBW	-12.3	-13.4	-1.1
%TBW Loss due to LM	14.6 (3.19)	30.2 (2.89)	-15.6 (3.23)
%TBW Loss due to FM	85.3 (3.22)	69.5 (2.93)	15.8 (3.27)

## COURAGE Study (Trevogrumab + Semaglutide +/- Garetosmab) — Change in Baseline Body Composition at Week 26<sup>2</sup>

Body Compartment % (SE)	Semaglutide n=151	Low-dose Combo n=149	Higher-dose Combo n=152	Triplet n=147
%Change in TBW	-10.6 (0.5)	-9.9 (0.5)	-11.1 (0.5)	-13.4*** (0.6)
%LM	-6.5 (0.5)	-3.3 (0.5)	-3.8 (0.5)	-2.0 (0.6)
%FM	-15.7	-17.3 (0.9)	-19.1 (0.9)	-27.1 (1.1)

1. <https://investors.scholarrock.com/news-releases/news-release-details/scholar-rock-reports-positive-phase-2-embraze-trial-results>. 2. <https://investor.regeneron.com/news-releases/news-release-details/results-phase-2-courage-trial-demonstrating-potential-improve>.

Low-dose combo – Trevogrumab 200 mg + semaglutide 2.4 mg; Higher-dose combo – Trevogrumab 400 mg + semaglutide 2.4 mg; Triplet – Trevogrumab 400 mg + garetosmab 10 mg/kg + semaglutide 2.4 mg.

\*\*\*p<0.001; SE, standard error; TBW, total body weight; LM, lean mass; FM, fat mass.



**KEY  
POINT**

**Blocking myostatin alone yields negligible loss of fat mass and total body weight**

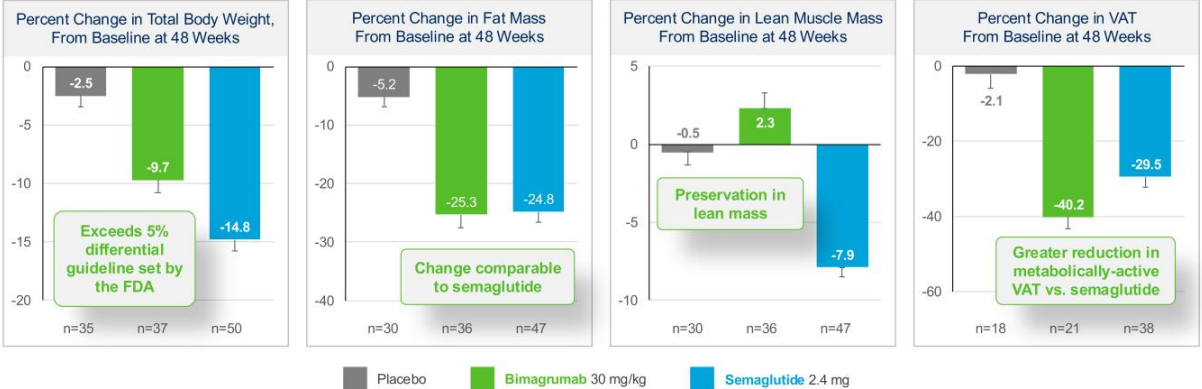
**Inhibition of myostatin plus activins drives favorable body composition change in obesity**



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# Bimagrumab Provides Reason To “Believe” With Compelling Efficacy but Limited by Safety/Tolerability

TALDEFGROBEP



Heymsfield. Nature Medicine. 2026...



**Bimagrumab demonstrated the ability to achieve regulatory targets of TBW loss with comparable total fat loss to GLP-1**



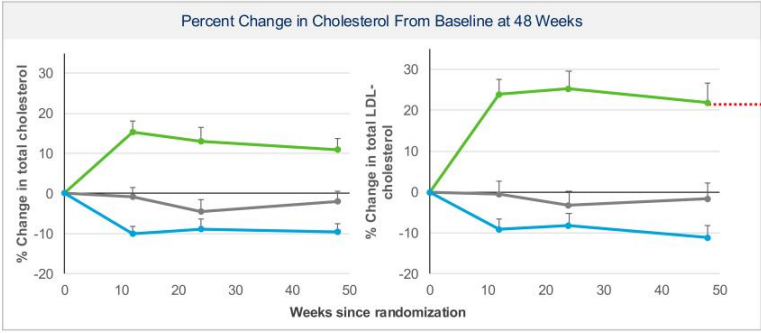
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# Bimagrumab Provides Reason To “Believe” With Compelling Efficacy but Limited by Safety/Tolerability

TALDEFGROBEP

	Placebo	Bimagrumab (30 mg IV)	Semaglutide (2.4 mg SC)
Muscle Spasms	5.5%	73.7%	8.9%
Diarrhea	5.5%	49.1%	35.7%
Acne	3.6%	43.9%	8.9%

Poor tolerability due to irreversible ActRIIB binding



Elevation in lipids secondary to high peak exposures following IV administration

Heymsfield. Nature Medicine. 2026.

# The Focus on Lean Loss With GLP-1 Therapies Is Not Going Away

TALDEFGROBEP



Anthropometric targets (e.g., WHtR) are a guidelines-driven reality



GLP-1-associated frailty is a growing concern, especially in vulnerable populations



Preserving muscle mass is important for overall health, beyond physical function



Myostatin-activin pathway inhibitors have demonstrated early promise in people living with overweight and obesity



**Peter Ackerman, MD**

*Senior Vice President,  
Clinical Development*

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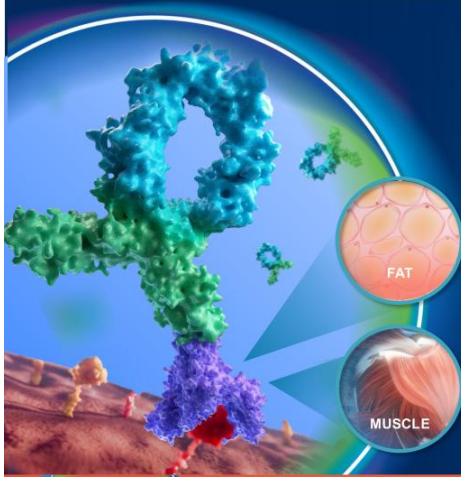
## Taldefgrobep Alfa: Myostatin-Activin Pathway Inhibitor Targeting High-Quality Weight Loss

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# Targeting High-Quality Weight Loss With Myostatin-Activin Inhibition

TALDEFGROBEP



**Taldefgrobep directly targets fat and muscle while avoiding intolerable adverse effects**

**Novel myostatin-activin MOA for healthy weight loss**  
Inhibits ActRII signaling in muscle and adipose tissue

**Favorable safety profile established in >700 treated to date**  
Low rates of muscle- and GI-related AEs

**Convenient dosing**  
Administration by subcutaneous autoinjector

**BREAKING  
NEWS**

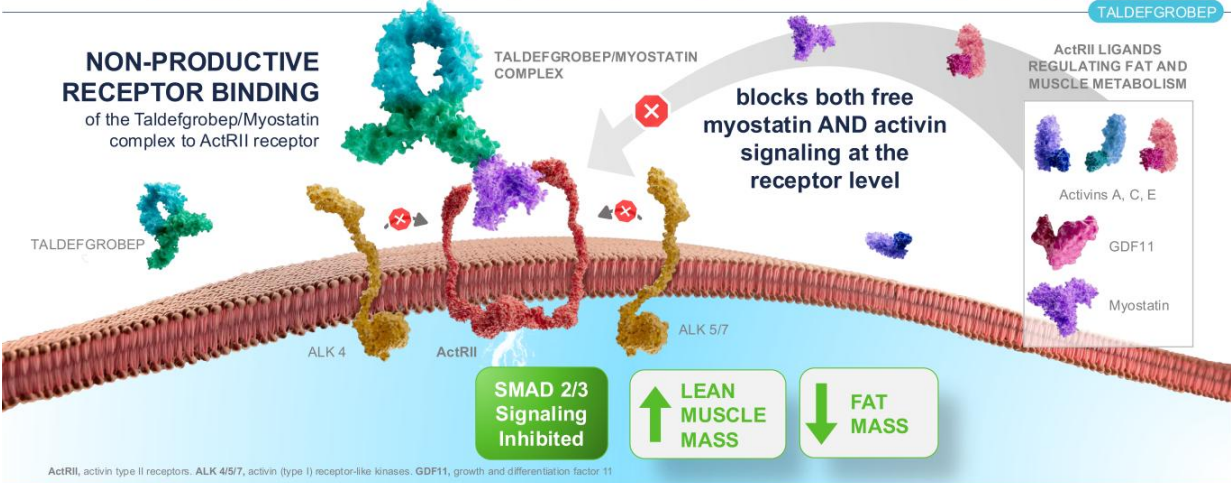
**Phase 2 proof-of-concept study topline expected 2H 2026**

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# Taldefgrobep Is a Novel Competitive Inhibitor of ActRII Signaling

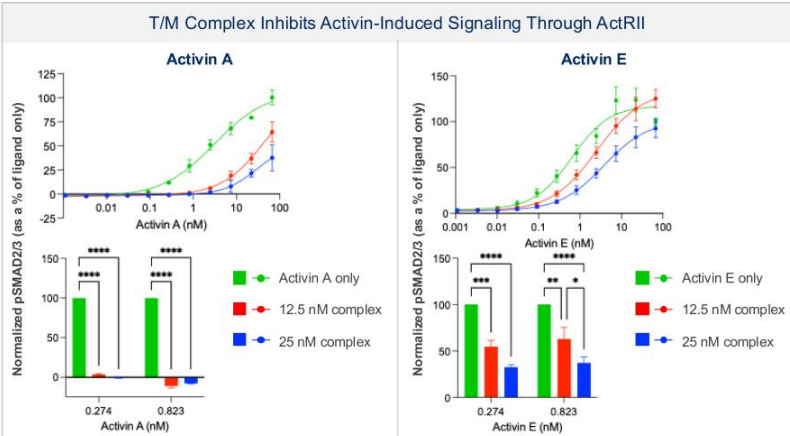


**KEY POINT** Taldefgrobep binds ligands and competitively inhibits receptor activation in tissues where myostatin and multiple activins (e.g., A, C, E) are active

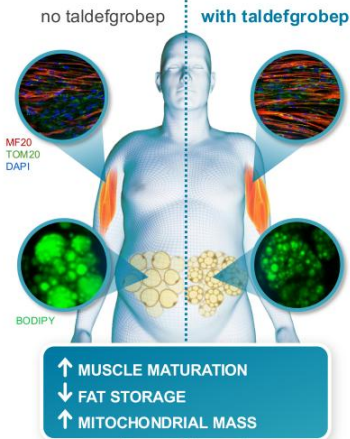
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# Taldefgrobep/Myostatin Complex Competes With Activin Signaling To Improve Muscle Differentiation and Fat Storage

TALDEFGROBEP



\*p<0.05, \*\*p<0.01, \*\*\*p<0.001, \*\*\*\*p<0.0001

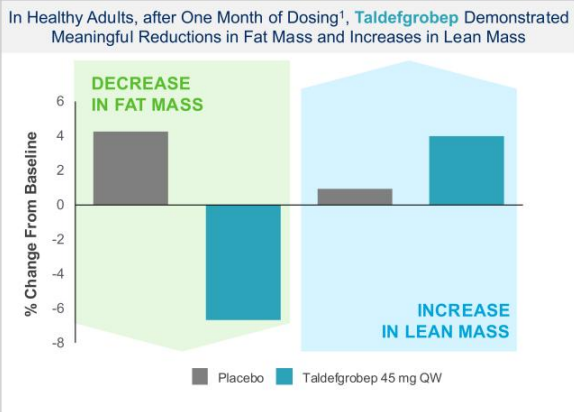
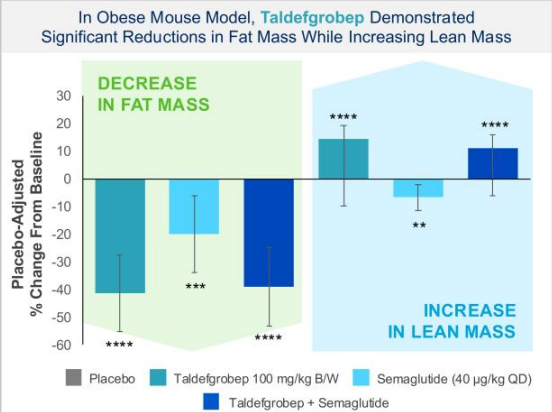


**KEY POINT**      The T/M complex, at clinically relevant exposures, inhibits activin A- and activin E-induced ActRII signaling

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# Taldefgrobep Improves Body Composition in Obese Mouse Model and Non-Obese Adults

TALDEFGROBEP



n=15 for vehicle; n=16 for all other groups. Error bars represent 95.00% CI of diff. Significance evaluated using Tukey's multiple comparisons test. \*\*P < 0.01; \*\*\*P < 0.001; \*\*\*\*P < 0.0001; QD, once daily; taldefgrobep alfa. Bechtold. ObesityWeek 2024. Poster 350. 1. CN001001 CSR, Day 57 data. 2. Heymsfield. JAMA Network Open. 2021. 3. Garlo. Diabetes Obes Metab. 2018.

**KEY POINT**

**In non-obese adults, taldefgrobep-induced changes in body composition are comparable to bimagrumab<sup>2,3</sup>**

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# Taldefgrobep Has an Established, Favorable Safety Profile

TALDEFGROBEP



Safety database includes **more than 700** treated trial participants



Assessed across a **wide dose range** (4 mg to 180 mg SC QW) and **broad demography**



Data from repeat dosing up to **192 consecutive weeks**



**LOW RATES** of SAEs and AEs leading to discontinuation



**LOW RATES** of GI- and muscle-related AEs commonly reported with other myostatin-activin pathway inhibitors



**No identified serious signature clinical safety events**

**KEY POINT**

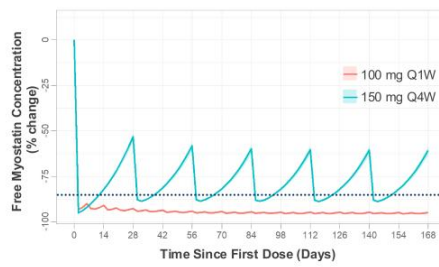
Safety profile well-suited for indication in chronic weight management

# Taldefgrobep PK/PD Modeling Supports Convenient SQ Dosing in Adults With Obesity

TALDEFGROBEP

## Pharmacodynamics of Taldefgrobep Weekly and Monthly Dosing

### Free Myostatin Concentration Over Time



### MODELING FOR DOSE SELECTION:

- Population PK/PD model using target-mediated drug disposition (TMDD) was developed to simulate taldefgrobep pharmacokinetics, free myostatin suppression and taldefgrobep/myostatin (T/M) complex concentrations in an obese population
- The model incorporated body weight effects on clearance, volume of distribution and relative bioavailability
- Using demographics from NHANES, simulations were conducted in 500 virtual adults with a BMI of 30-40 kg/m<sup>2</sup>

### MODELING PREDICTS:

- Taldefgrobep 100 mg Q1W and 150 mg Q4W should suppress free myostatin >80%
- T/M complex concentrations should exceed the established IC<sub>50</sub> associated with ActRII signaling at both dose levels

**KEY  
POINT**

Taldefgrobep 100 mg Q1W and 150 mg Q4W are predicted to suppress free myostatin and yield T/M complex concentrations that competitively inhibit ActRII signaling

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**Timothy R. Smith,**  
**MD, RPh**  
*Senior Medical Director*  
*StudyMetric Research*

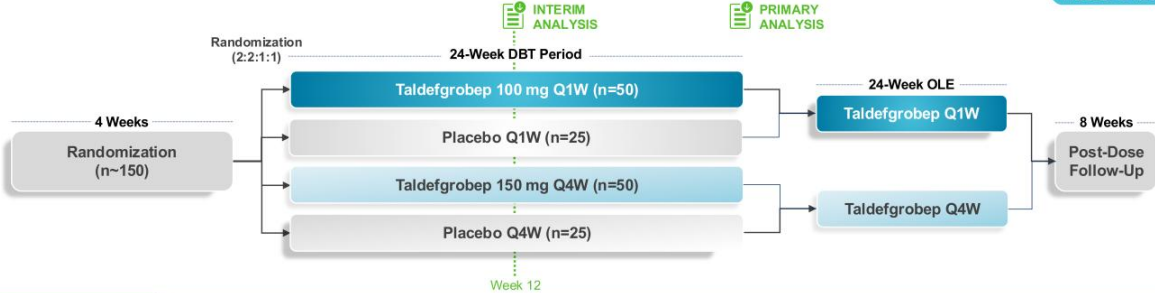


## Ongoing Phase 2 Proof-of-Concept Study in Obesity

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# Ongoing Phase 2 Monotherapy Dose-Ranging (Q1W + Q4W) Study

TALDEFGROBEP



**KEY STUDY DETAILS**

**Study Design:** Phase 2, randomized, double-blind, placebo-controlled dose-ranging study  
**Population:** Male and female adults (18 to 65 years-old) with overweight or obesity  
**Blinded Interim Analysis (when 30% complete Week 12):** Taldefgrobep PK/PD (free myostatin and T/M complex concentrations) and plasma lipids by treatment assignment  
**Endpoints:** % change in total body weight, fat mass and lean mass at Week 24. Whole-body MRI in subset

**KEY POINT** PK/PD interim analysis completed  
 Topline primary analysis expected 2H 2026

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## Baseline Demography by Q1W vs. Q4W, Taldefgrobep + Placebo

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Parameter	Q1W (n=79)	Q4W (n=78)
Age, years, mean (SD)	46.6 (11.59)	48.1 (10.93)
Sex, female, n (%)	53 (67.1)	53 (67.9)
Race, n (%)		
White	59 (74.7)	57 (73.1)
Black	13 (16.5)	15 (19.2)
Asian	2 (2.5)	2 (2.6)
Other	5 (6.3)	4 (5.1)
Ethnicity, Hispanic/Latino, n (%)	24 (30.4)	25 (32.1)
TBW, kg, mean (SD)	99.2 (14.01)	101.1 (14.17)
WHR, mean (SD)	0.7 (0.05)	0.7 (0.06)
BMI, kg/m <sup>2</sup> , mean (SD)	35.3 (3.32)	35.5 (3.49)
BMI ≥35 kg/m <sup>2</sup> , n (%)	40 (50.6)	41 (52.6)
HbA1c, %, mean (SD)	5.5 (0.34)	5.5 (0.32)

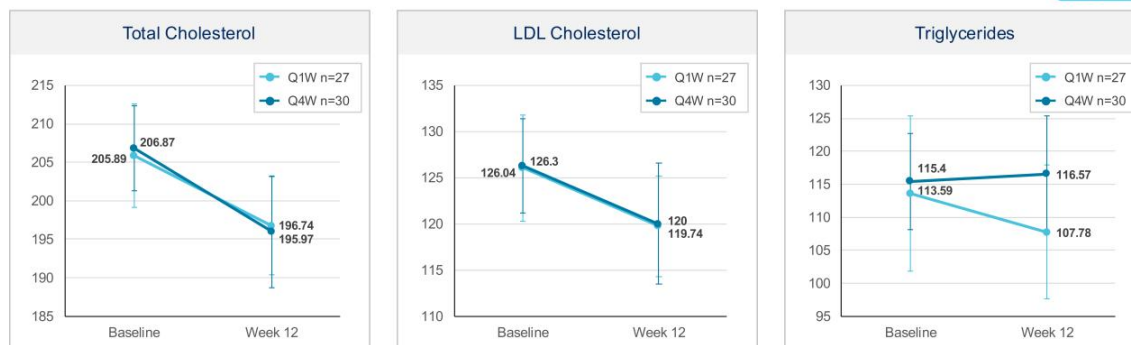
TBW, Total Body Weight; Kg, kilograms; WHR, Waist-to-Height Ratio; BMI, Body Mass Index; M<sup>2</sup>, meters squared; HbA1c, Hemoglobin A1c; SD, Standard deviation



**Baseline characteristics evenly distributed across the treatment groups and consistent with standard obesity trial population**

# Blinded Interim Data by Q1W vs. Q4W, Taldefgrobep + Placebo No Adverse Effects on LIPIDS at Week 12

TALDEFGROBEP



- No treatment-emergent G2-4 elevations in total cholesterol or triglyceride values
- 1 participant with emergent G3 LDL elevation; had G2 elevation at Baseline

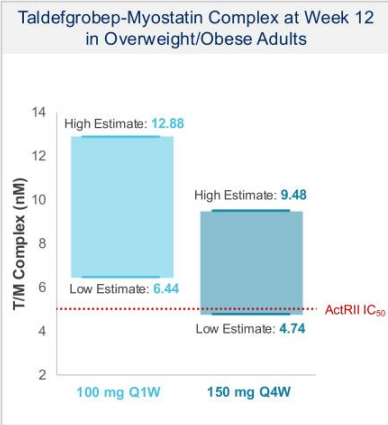
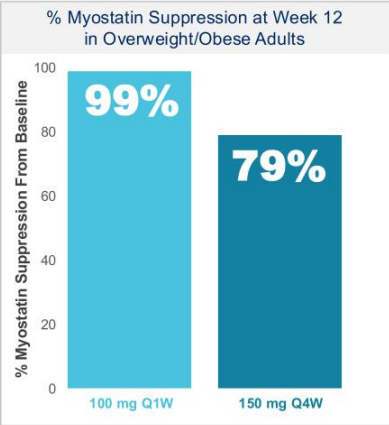
Error bars represent Standard Error

**KEY POINT** No identified adverse trends in lipid parameters demonstrating differentiated safety from other myostatin-activin pathway inhibitors

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# Interim Phase 2 PK/PD Data Supports Weekly and Monthly Dosing in Obesity

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### AT WEEK 12:

- Observed mean taldefgrobep concentrations are consistent with model-predicted
- Robust suppression of free myostatin throughout Q1W and Q4W dosing intervals
- T/M complex concentrations comparable between dosing regimens and at/above target ActRII IC<sub>50</sub>

**KEY POINT** Interim data suggest monthly dosing can achieve robust myostatin suppression and formation of T/M complex levels at/above targeted ActRII IC<sub>50</sub> levels

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**Peter Ackerman, MD**

*Senior Vice President,  
Clinical Development*

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Taldefgrobep for Obesity – Potential for Differentiated  
Benefit Across a Broad Patient Population

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# Taldefgrobep Offers a Novel Approach To Address the Needs for People Living With Obesity

TALDEFGROBEP

**Total body weight loss** meeting current regulatory standards



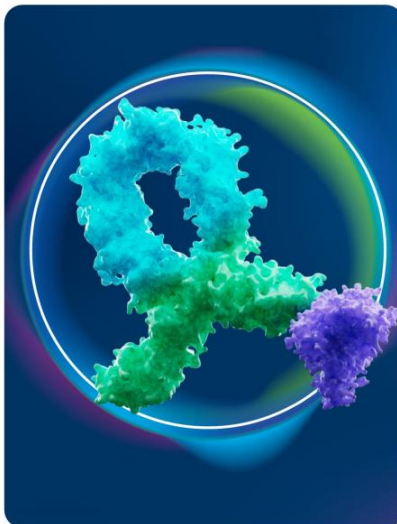
**Benefit as monotherapy and in combination** with GLP-1 therapies



**Convenient** subcutaneous autoinjector with potential for monthly dosing



**Favorable safety and tolerability**



**Fat mass loss** comparable to GLP-1 therapies



**Visceral adipose tissue loss** favorable to GLP-1 therapies



**Increase in lean muscle mass** highly differentiated from GLP-1 therapies



**Increase in bone density** favorable to GLP-1 therapy



# Taldefgrobep Can Benefit a Broad Spectrum of People Living With Obesity

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**6.6M-10M**

Older patients at risk of sarcopenia

**5-8M**

People intolerant or refractory to GLP-1

**5-7M**

People living with BMI  $\geq 40$

**5-10M**

People unable to tolerate high dose GLP-1

MONOTHERAPY

GLP-1 ADJUNCT

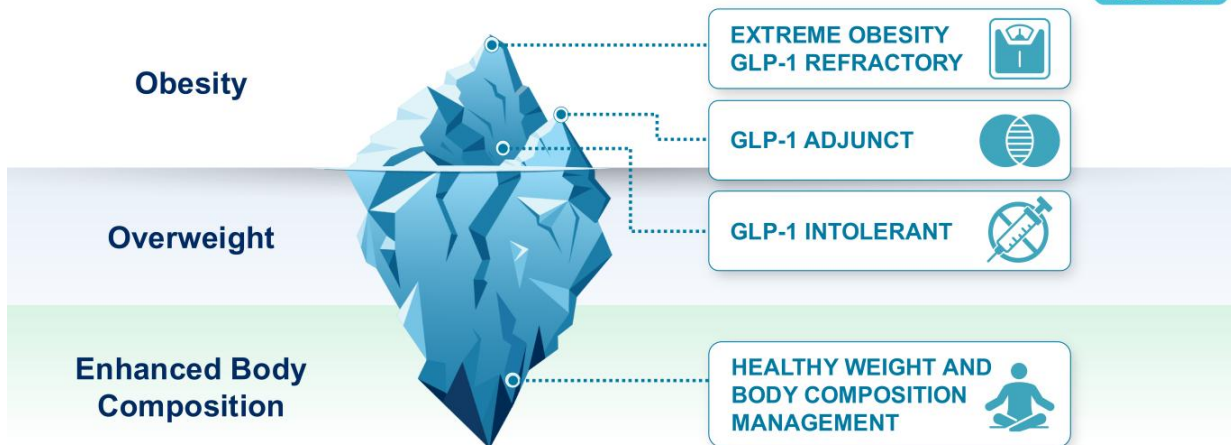
Source: BHVN Market Research and Analytics Data on file

**KEY POINT**

Meaningful reductions in fat mass, preservation of lean muscle mass, once-monthly dosing and high tolerability drive market potential

# A Shift Toward Body Composition Targets Expands the Market Opportunity for Taldefgrobep

TALDEFGROBEP



**KEY  
POINT**

Obesity may be the category's tip of the iceberg

# Panel

MODERATOR



**Amy Li**  
*Equity Analyst*

Jefferies

PANELISTS

**Donna H. Ryan, MD**  
*Professor Emerita*  
*Pennington Biomedical Research Center*

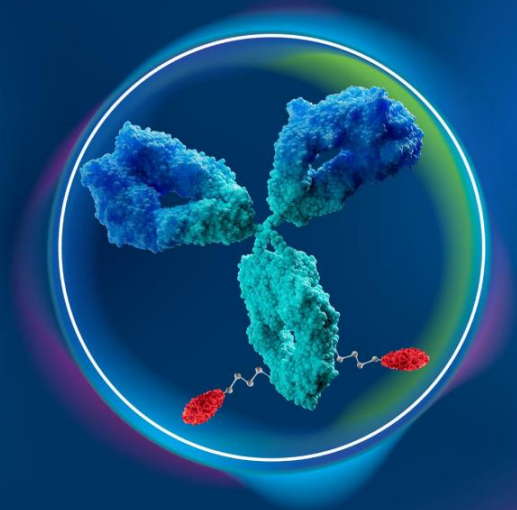
**Timothy R. Smith, MD, RPh**  
*Senior Medical Director*  
*StudyMetrix Research*

**Peter Ackerman, MD**  
*Senior Vice President, Clinical Development*  
*Biohaven*

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**ONCOLOGY**  
Modular Next-Generation  
ADC Technologies:  
Optimizing for Clinical  
Performance





**Brian Lestini, MD, PhD**  
*President, Oncology*

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**Nushmia Khokhar, MD**  
*CMO, Oncology*

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**David Pirman, PhD**  
*SVP and Head of Drug Discovery*

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**Gopa Iyer, MD**  
*Genitourinary Medical Oncologist*

 Memorial Sloan Kettering  
Cancer Center

Oncology

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**Brian Lestini, MD, PhD**  
*President, Oncology*

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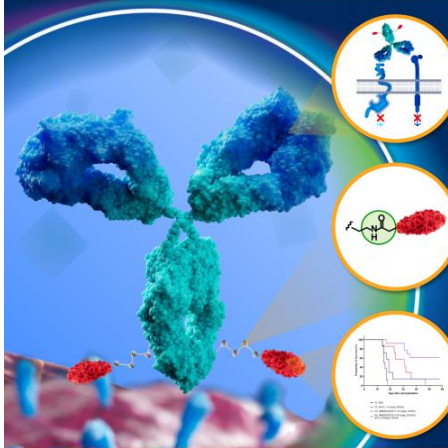
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# Innovative Biohaven Technologies Enabling Differentiated Next-Generation ADCs

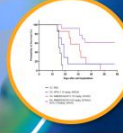
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OPTIMIZED  
MONO AND  
BISPECIFIC  
MABS



NEXT-GEN  
MODULAR ADC  
CONJUGATION  
TECHNOLOGIES



PROPRIETARY  
TOPOIX  
AND MULTI-  
CLASS  
PAYLOADS

## Clinical Proof-of-Principle Establishing the Power and Flexibility of the Platform to Optimize Across Broad Range of ADC Designs and Combination Strategies Including CPI

### First clinical demonstration (BHV-1510 Trop2)

Highly stable, differentiated PK and safety, compelling activity with CPI combination

### First-in-class potential FGFR3 ADC (BHV-1530)

Novel mAb, potential to address both FGFR3 alterations and overexpression

### Platform tech enables multi-class payload loading

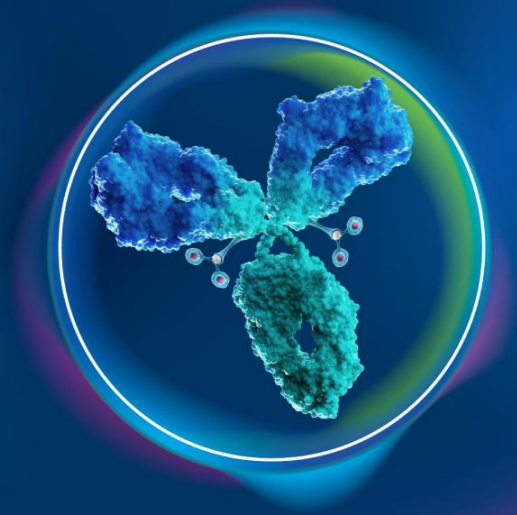
Clinically differentiated Topolx payload, foundational for CPI and other potentially synergistic MOA combinations

**BREAKING  
NEWS**

- **BHV-1510:** Robust enrollment in endometrial + cemiplimab combination expansion cohort
- **BHV-1530:** First activity observed, including pretreated FGFR3-altered urothelial cancer patient
- **Discovery:** Preclinical data supporting next-wave bispecific mAb, multi-payload formats

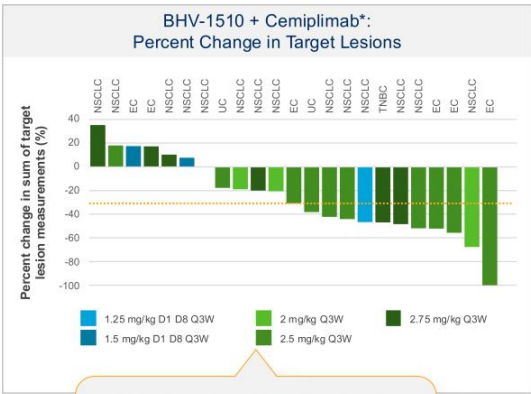
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BHV-1510  
Trop2 ADC

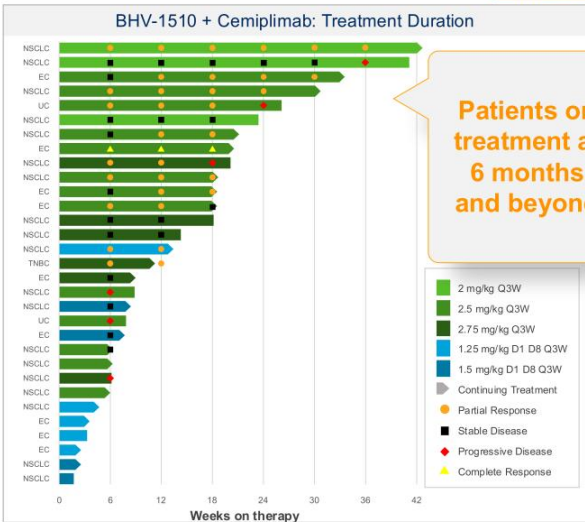


# BHV-1510 + Cemiplimab Leads to Rapid, Deep and Durable Responses in Heavily Pretreated Patients, Majority With Prior Anti-PD(L)1

ONCOLOGY



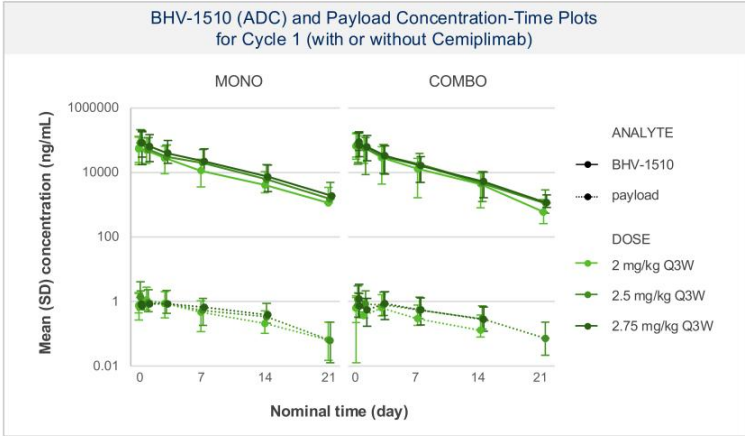
**Majority (87.1%) had prior anti-PD(L)1 exposure**



\*Cemiplimab (anti-PD1) provided through a supply agreement with Regeneron; dose of cemiplimab 350 mg Q3W  
 Source: Micaliy, ESMO Immuno-Oncology Congress 2025, Poster 252P.

# BHV-1510 Demonstrates a Favorable PK Profile With Highly Stable ADC

ONCOLOGY



Source: Micaily, ESMO Immuno-Oncology Congress 2025, Poster 252P

**KEY POINT** The unconjugated payload concentration was low with a payload-to-ADC molar ratio <1%, indicating that ADC was highly stable in the circulation

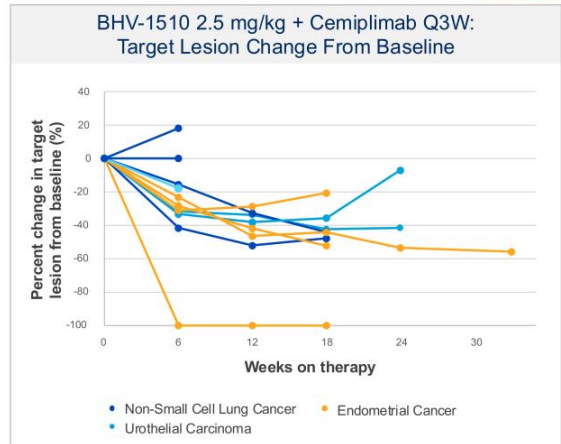
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# Encouraging Early Clinical Activity and High Response Rates of BHV-1510 + Cemiplimab Enable First Tumor-Specific Expansions

ONCOLOGY

- **Dose escalation complete:** Compelling efficacy in difficult-to-treat patients
  - Responses in heavily pretreated patients, including with brain metastases; majority with prior anti-PD(L)1 exposure
- **Rapid onset of benefit:** Tumor shrinkage / PRs at 1<sup>st</sup> scan
- **Differentiated safety profile:** Low rates of hematological toxicities and diarrhea; no ILD observed\*
- **Favorable PK profile:** Highly Stable ADC

\* By independent adjudication  
Source: Micaly; ESMO Immuno-Oncology Congress 2025, Poster 252P.



- Early data suggests synergy with anti-PD-1 and potential to move into earlier lines
- Endometrial cancer expansion cohort with combination enrolling robustly - data to inform pivotal path

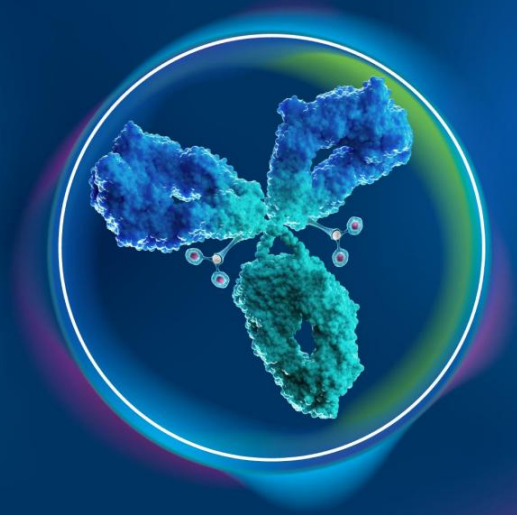
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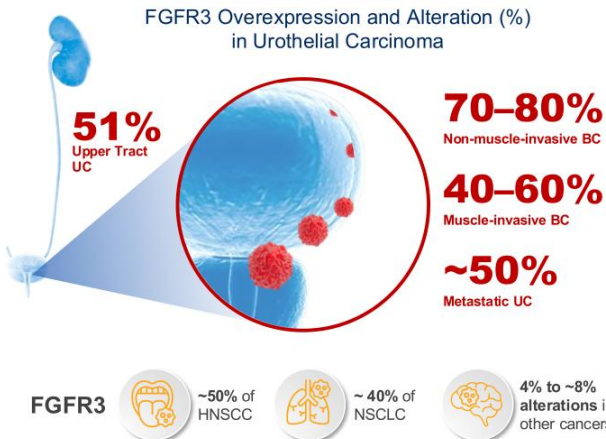
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BHV-1530  
FGFR3 ADC



# BHV-1530: Favorable Early Clinical Profile No FGFR-Class Toxicities and Early Signs of Antitumor Activity

ONCOLOGY



**Compelling preclinical efficacy across FGFR3-altered and FGFR3-overexpressing tumor models:**  
Demonstrated as monotherapy and in combination with CPI

**Clinical progress:** First patient dosed April 2025: initial cohorts successfully completed:

- No dose limiting toxicities
- No treatment related SAEs
- TRAEs predominantly mild (Grade 1–2)
- No hyperphosphatemia, nail disorders, central serous retinopathy

**Early signs of activity:** Early tumor reduction in patients with FGFR3 alterations and wild-type overexpression, as dosing in the predicted efficacious range

As of April 2026. Data from ongoing study

**KEY POINT** Early tumor reductions in FGFR3-altered and WT overexpressing patients, including urothelial cancer  
Dose escalation continuing with no DLTs to date

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# BHV-1530: Phase 1 Study in Advanced Tumors



**KEY STUDY DETAILS**

- Study Design:** Open label, dose escalation (Ph1)
- Population:** Advanced UC, HNSCC, NSCLC having failed SOC therapy
- Treatment Duration:** Until disease progression or toxicity
- Endpoints:** Safety and tolerability, ORR, PFS, PK and ADA

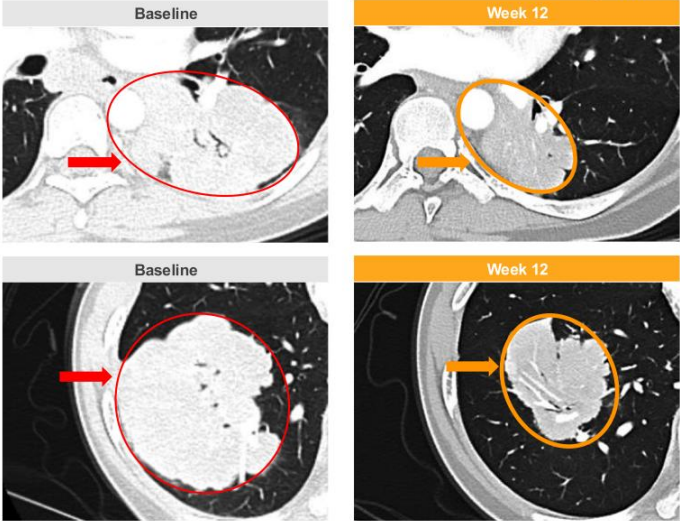
ORR, Overall Response Rate; PFS, Progression Free Survival; ADA, Antidrug Antibody; BOIN, Bayesian Optimal Interval; RD, Recommended Dose.

**KEY POINT** Early tumor reduction in patients as dosing in the predicted efficacious range

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# Case Narrative: Metastatic Urothelial Cancer

- 28 y/o female with urothelial cancer with a FGFR3::TACC3 fusion, with metastasis to lungs and thoracic lymph node
- 4 prior lines of therapy including
  - Padcev and Keytruda and 2 FGFR targeting small molecules-Balversa and LOXO-435
- Tolerating treatment with mild nausea and no FGFR related toxicity



# BHV-1530: Potential First FGFR3 ADC — Broader Reach, No Class Toxicities, Clear Development Path

## BHV-1530 ADC vs. Small-Molecule FGFR3 Inhibitor

	Small Molecule Inhibitor	BHV-1530
Target Population	FGFR3-altered only ~limited addressable population	Altered AND overexpressing — full FGFR3+ population
Class Toxicities	Hyperphosphatemia nail disorders, retinopathy	None observed — no FGFR inhibitor-class toxicities
Mechanism	Kinase inhibition resistance develops readily	ADC: targeted delivery of cytotoxic payload
CPI Combination	Limited — overlapping toxicity concerns	Engineered for CPI synergy Topolx → ICD →

### DEVELOPMENT ROADMAP

#### PH1 DOSE ESCALATION

**NOW - ACTIVE**

- No DLTs; no FGFR-class toxicities
- Early tumor reduction in altered + WT overexpressing

#### DOSE OPTIMIZATION+POC

- Identify recommended Ph2 dose
- UC expansion POC
- Confirm activity across FGFR3 subtypes

#### COMBO EXPANSION

- Expansion cohort in UC with CPI combo
- Pivotal design conversations begin

#### 1L mUC - PIVOTAL PATH

- 1L mUC combination with CPI
- Monotherapy in 2L+selected pts

# Summary: BHV-1510 and BHV-1530 Program Milestones and Next Steps

ONCOLOGY

## BHV-1510

Trop2 ADC | Solid Tumors (NSCLC • Endometrial Ca • Urothelial Ca)



### PRECLINICAL

COMPLETE

Superior cytotoxicity and immunogenic cell death vs. benchmark Topo-1 ADCs; strong *in vivo* anti-PD-1 synergy; favorable PK, stability and safety profile



### PHASE 1 DOSE ESCALATION

COMPLETE

Mono and PD-1 combo activity across solid tumors; differentiated safety — no ILD, low hematologic toxicity and diarrhea; <1% free payload in circulation



### INITIAL PROOF-OF-CONCEPT CLINICAL DATA

(ESMO IO 2025)

COMPLETE

BHV-1510 + Cemiplimab: rapid, deep, durable responses in heavily pretreated patients; most had prior anti-PD(L)1 exposure



### PHASE 2 EXPANSION — ENDOMETRIAL CANCER

ACTIVE

Expansion cohort with anti-PD-1 combination enrolling; early efficacy readouts to inform pivotal path in endometrial cancer

## BHV-1530

FGFR3 ADC — Potential First Urothelial Carcinoma ADC targeting • FGFR3-Driven Tumors



### PRECLINICAL

COMPLETE

Robust antitumor activity in FGFR3-altered and overexpressing models - expanding addressable biology vs. small molecules; CPI combination synergy; superior efficacy vs. erdafitinib and EV



### PHASE 1 DOSE ESCALATION — UC AND FGFR3-DRIVEN TUMORS

ACTIVE

Ongoing — no DLTs observed; no FGFR inhibitor-class toxicities; high systemic stability; early clinical activity as dosing in predicted efficacious range



### NEAR-TERM: POC AND EXPANSION DATA

UPCOMING

Multiple near-term value drivers from dose-escalation readouts; proof-of-concept data expected to trigger expansion cohorts in UC and beyond



### STRATEGIC PATH: 1L mUC + BROAD EXPANSION

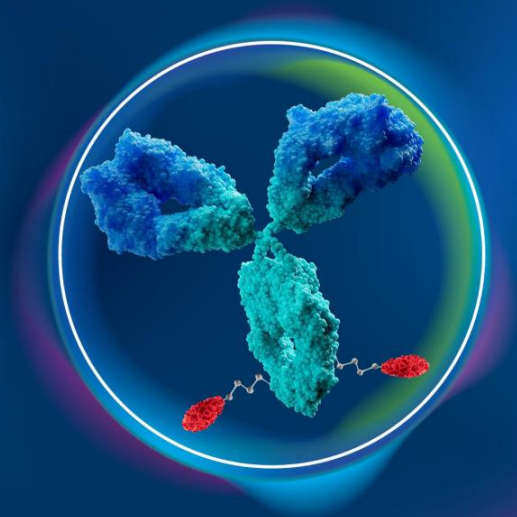
UPCOMING

Clear path into 1L metastatic UC and earlier disease settings; mono and combination potential; expansion to NSCLC, HNSCC and other FGFR3-high tumors

Source: Biohaven data on file; Mically, ESMO Immuno-Oncology Congress 2025. Poster 252P. ADC, antibody-drug conjugate; ICD, immunogenic cell death; EV, enfortumab vedotin; mUC, metastatic urothelial carcinoma.

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ADC DISCOVERY PLATFORM  
Biohaven Technologies  
Enabling Next Wave  
of Differentiated ADCs





**David Pirman, PhD**

*SVP and Head of Drug Discovery*

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Next-Generation ADCs

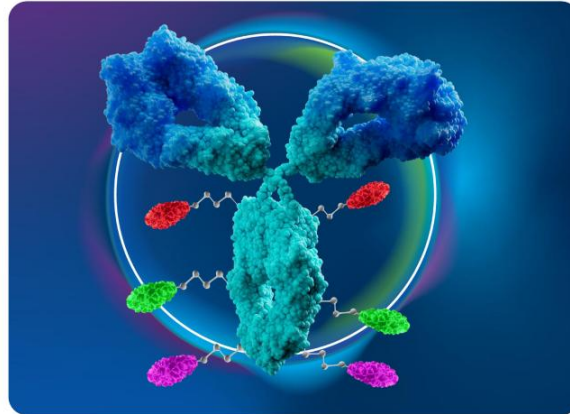
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# Leveraging Unique Modular Technologies To Overcome Key Clinical Limitations of Current-Generation ADCs

ONCOLOGY

Novel **mono- and bi-specific mAbs** against validated and emerging targets

Affinity tuned mAbs to improve tumor penetrance and limit off-target toxicities



Synergistic **multi-payload** optionality with **diverse MOA** to overcome resistance from conventional ADC

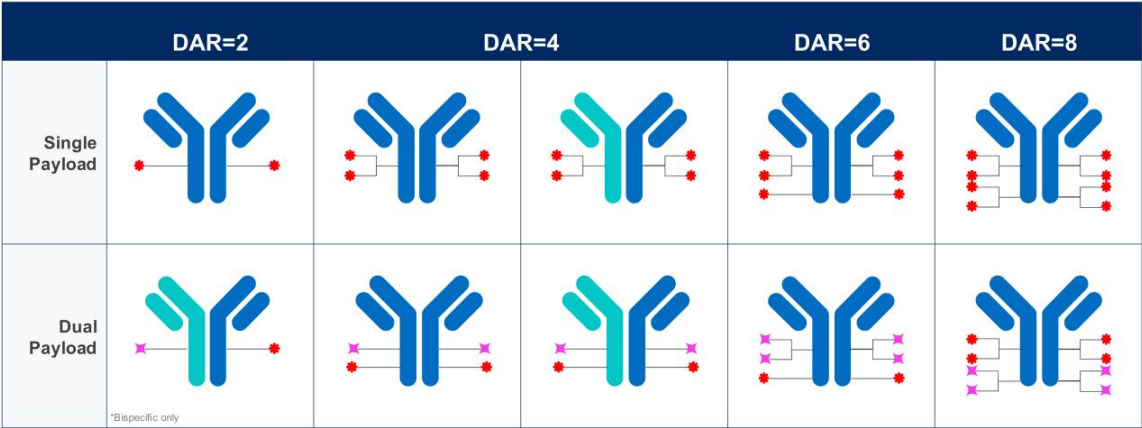
Multiple **site-specific stable conjugation** technologies to optimize precise linker-payload stoichiometries

## OBJECTIVES

Enhance efficacy and therapeutic index through rational combinations that address tumor heterogeneity, improved immune activation and mechanisms of payload resistance

# Complimentary Conjugation Technologies Enable ADCs With Precise DAR Ratios of Multiple Payloads Across Most Antibody Designs

ONCOLOGY



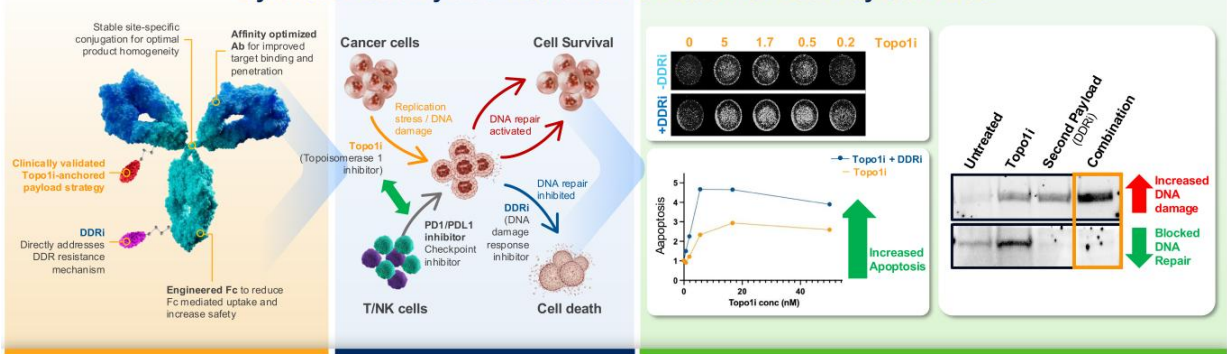
**KEY POINTS**

- Leverage serial conjugations to generate a diversity of stable, site-specific multi-payload combinations
- Applicable to mono- and bispecific mAbs and other Fc-fused antigen targeting modalities

# Multi-Payload Combinations Provide Potential To Synergize Through Overlapping Mechanisms of Cell Killing and Enhancing Antitumor Immunity

ONCOLOGY

## Synthetic Lethality as a Mechanism of Action for Dual-Payload ADCs



Dual-Payload ADC Architecture

Mechanism of Synergy

Payload Synergy Observed at the Molecular Level

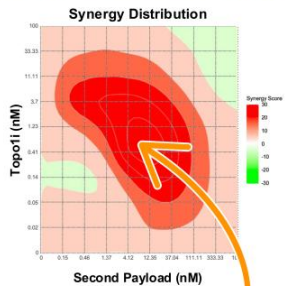
### Synergistic ADC Design

Topo1 inhibition and synergistic payloads profoundly inhibit DDR signaling, driving an accumulation of DNA damage that dramatically increases cell killing in rapidly proliferating cancer cells as well as stimulating an enhanced antitumor immune response

# Robust Screening Efforts Identify Payloads That Synergize With Topo1i for Next-Generation Biohaven Dual-Payload ADCs

*In vitro* cell-based synergy screen identifies compounds that synergize with Topo1i and are suitable for ADC conjugation

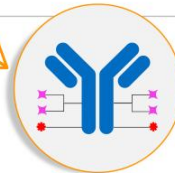
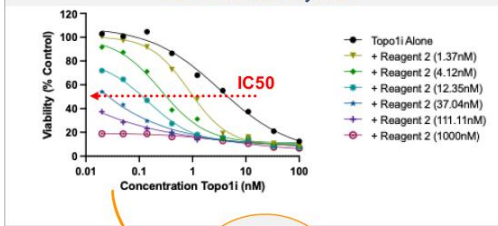
## Topo1i + Second Payload Demonstrates Synergistic Interaction



Target synergy partner and concentration range for optimal tumor cell killing  
Synergy score to define optimal DAR

Top synergy hits from combination screen demonstrate increased efficacy and DAR4+2 may be optimal

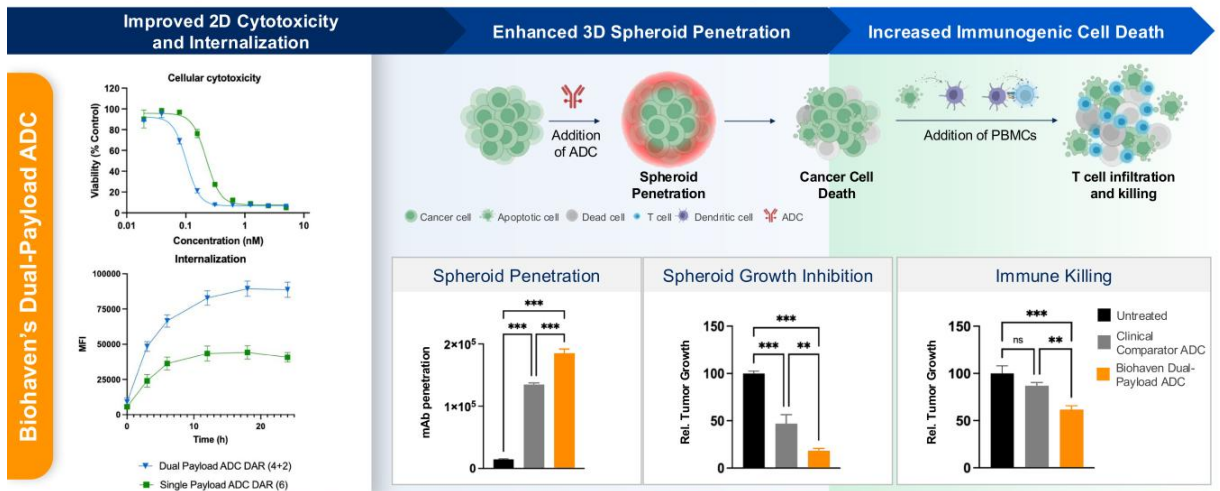
## Potency Shift of Topo1i in Combination With Second Payload



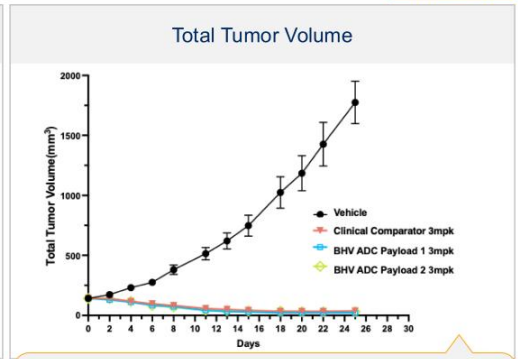
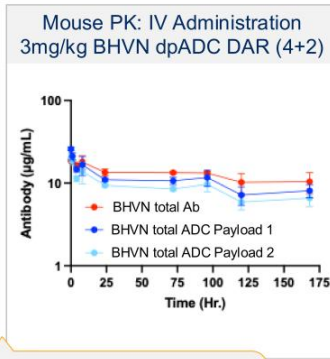
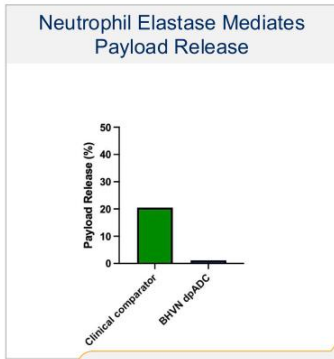
# Biohaven Platform Enables the Development of Next-Generation ADCs With Improved Activity and Potential Transformational Functional Properties

ONCOLOGY

## Dual-payload ADC approach demonstrates superiority vs. clinical competitors *in vitro*



# Superior Dual-Payload Path to the Clinic Targeting CRC



**Biohaven Dual-Payload Shows Superior Stability and Half-Life >8 Hours in Mice**

**Biohaven Dual-Payload Shows Strong (>98%) Tumor Growth Inhibition**

**KEY POINTS**

- Serial site-specific conjugations produce highly effective dual-payload ADCs
- Stable conjugations expected to improve dose-limiting toxicities driven by premature payload release

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# Panel

## MODERATOR



**Tyler Van Buren**  
*Equity Analyst*

**TD Cowen**

## PARTICIPANTS

**Brian Lestini, MD, PhD**  
*President, Oncology*  
*Biohaven*

**Nushmia Khokhar, MD**  
*CMO, Oncology*  
*Biohaven*

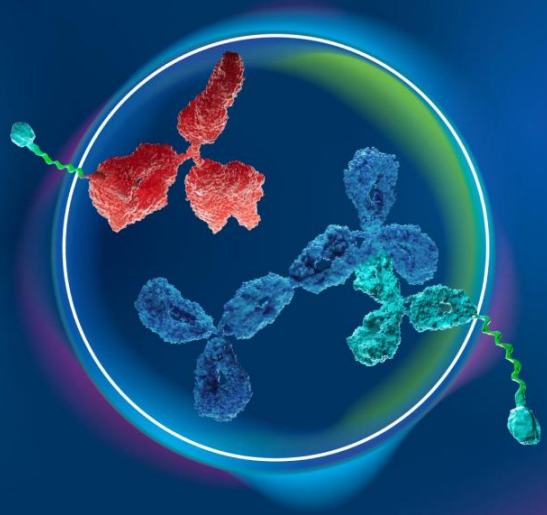
**David Pirman, PhD**  
*SVP and Head of Drug Discovery*  
*Biohaven*

**Gopa Iyer, MD**  
*Genitourinary Medical Oncologist*  
*Memorial Sloan Kettering Cancer Center*

BHVN  
LISTED  
NYSE

biohaven®

DEGRADERS:  
MoDE™ AND TRAP™  
Targeting the Root  
Cause of Autoimmune  
Disease





**Tova Gardin, MD, MPP**  
*Chief Translational Officer*

biohaven®



**David Pirman, PhD**  
*SVP and Head of Drug Discovery*

biohaven®



**Malini Gupta, MD,  
ECNU, FACE, FITS**  
*Director of G2Endo, Endocrinology  
and Metabolism 2025 AACE Chair*

 G2ENDO



**Professor Jonathan  
Barratt, PhD, FRCP**  
*The Mayer Professor of Renal Medicine,  
Department of Cardiovascular Sciences*

 UNIVERSITY OF  
LEICESTER

MoDE™ and TRAP™ Degraders

biohaven®



**Tova Gardin, MD, MPP**  
*Chief Translational Officer*

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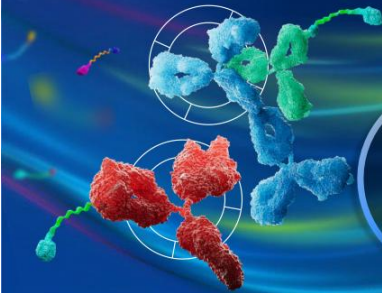
MoDE™ and TRAP™ Degradable

biohaven®

MoDE™ and TRAP™  
DEGRADERS

# Advancing Potential Paradigm Shifting Extracellular Degraders Into Pivotal Development

PRECISION PLATFORM  
BUILT ON VALIDATED  
TARGETS



RAPID, DEEP  
TARGET  
REDUCTION

MEANINGFUL  
CLINICAL  
OUTCOMES

ADVANCING  
INTO  
PIVOTAL  
STUDIES

TO TRANSFORM  
PATIENT OUTCOMES



**Courtney**  
Living with  
Graves' Disease

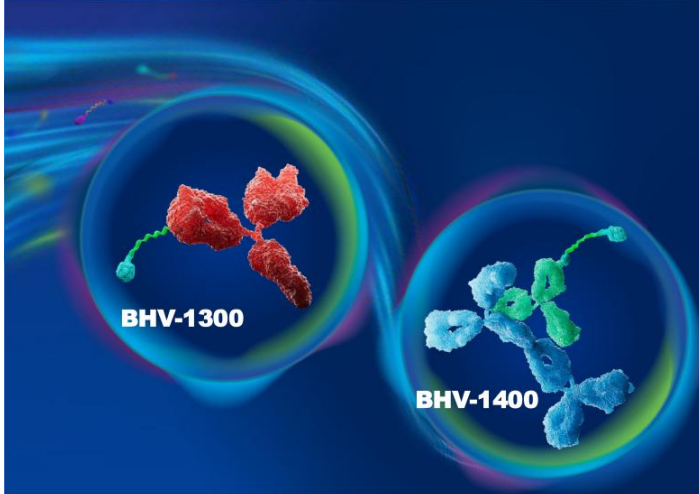
**Stephen**  
Living with PAN

Engineered for selective removal  
of disease-causing proteins

BECAUSE  
**DAYS MATTER™**

**MoDE™ and TRAP™  
DEGRADERS**

First Extracellular Protein Degraders in the Clinic Demonstrate Rapid and Robust Pharmacodynamic Effects and Compelling Safety in Nearly 200 Individuals Dosed

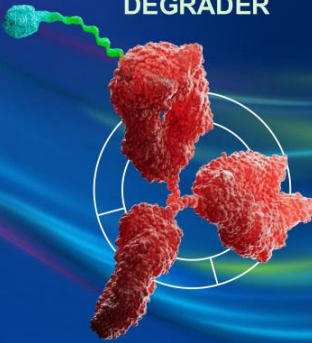


- ✓ Safe
- ✓ Well-tolerated
- ✓ Highly selective
- ✓ Deep and rapid lowering
- ✓ Patient outcomes
- ✓ Pivotal trials mid-2026

**BHV-1300 MoDE™  
DEGRADER**

**Designed To Treat the Root Cause of Graves' Disease...  
Not Just the Symptoms**

**POTENTIAL FIRST-IN-CLASS  
EXTRACELLULAR  
DEGRADER**



Degrades TSHR autoantibodies  
Normalizes thyroid function

Deep TSHR  
autoantibody  
degradation  
>80%

Normalization  
of thyroid  
hormones  
within weeks

BHV-1300  
advances to  
pivotal trial  
mid-2026

**TO TRANSFORM  
PATIENT OUTCOMES**



BECAUSE  
**DAYS MATTER™**

**biohaven**

# Living with Graves' Disease

Graves' disease affects nearly 1 in 100 Americans.<sup>1</sup>



KIM



COURTNAY



CAMERON



MICHELE



PAIGE

About 4 out of 5 cases of hyperthyroidism in the United States are caused by Graves' disease.<sup>1</sup>



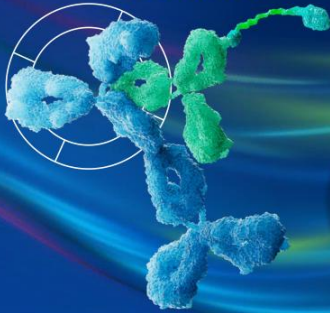
EMMA

1. Akram S, Eifenbein DM, Chen H, Schneider DF, Sippel RS. Assessing American Thyroid Association guidelines for total thyroidectomy in Graves' disease. Journal of Surgical Research. 2020;245:64-71.

**BHV-1400 TRAP™  
DEGRADER**

**Designed To Treat the Root Cause of IgAN...  
Rapidly and Without Immunosuppression**

**POTENTIAL FIRST-IN-CLASS  
EXTRACELLULAR  
DEGRADER**



Degrades Gd-IgA1  
Targeting the Disease at its Root

Deep Gd-IgA1  
degradation

Improvement  
in hematuria,  
UPCR and  
eGFR within  
weeks

BHV-1400  
advances to  
pivotal trial  
mid-2026


**TO TRANSFORM  
PATIENT OUTCOMES**



BECAUSE  
**DAYS MATTER™**

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# By the Time IgAN Is Diagnosed, Kidney Function Is Already Significantly Compromised



**IgAN**  
IgA nephropathy

A rare chronic kidney disease that is caused by excess production of galactose-deficient IgA1 (Gd-IgA1) antibodies in the kidneys

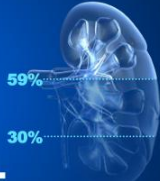
1. Pflüger. Kidney Int. 2023.

IgAN predominantly affects people in their **MOST PRODUCTIVE YEARS OF LIFE**

<b>20s</b> MEDIAN AGE AT DIAGNOSIS <sup>1</sup>	<b>30s</b> MOST COMMON AGE RANGE <sup>1</sup>
--	--

**CKD STAGE 3**  
MOST COMMON AT DIAGNOSIS

At diagnosis, kidney function is already reduced to **30–59% OF NORMAL**



**Camille**  
Diagnosed with IgAN in 2020 at age 25

IgAN demands rapid intervention and a therapy safe enough to last a lifetime

**TREATMENT GOAL** Every month matters. Rapid intervention to preserve kidney function and limited remaining nephrons

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**MoDE™**  
 > 1M patients | \$7.6B

**BHV-1300**  
 IgG degrader  
 Graves' disease · RA  
 Sjögren's · Biologic failure

**BHV-1400**  
 Gd-IgA1 degrader  
 IgA nephropathy

**TRAP™**

**MoDE™ and TRAP™  
 Degraders**

PIPELINE ASSETS

**8+**  
 BHV degrader programs

ADDRESSABLE PATIENTS

**>2M**  
 across lead programs (US)

PEAK SALES POTENTIAL

**\$30B+**  
 combined gross sales

**BHV-1310**  
 IgG Degrader  
 gMG · Systemic sclerosis  
 AE · ITP

**BHV-1450**  
 IgG4 degrader  
 Pemphigus vulgaris  
 MuSK MG · IgG4-RD  
 CIDP

**BHV-1490**  
 IgM degrader  
 Cold agglutinin disease  
 Anti-MAG  
 Waldenström's

**BHV-1440**  
 TSHR AAb degrader  
 Graves' disease  
 Thyroid eye disease

**BHV-1420**  
 PLA2R AAb Degrader  
 Membranous  
 Nephropathy (MN)

**BHV-650**  
 Pro-Insulin/Insulin  
 AAB Degrader

~400K patients | \$11.1B

~92K patients | \$2.6B

~42K patients | \$1.7B

~133K patients | \$5.0B

~41K patients | \$1.3B

Addressable patients for each degrader based on internal assessment of potential patient population. Peak sales potential based on addressable patients for each degrader and internal assessment of gross revenue potential (prior to GTN adjustments or any adjustments associated with clinical risk), adjusted for estimated market share / market penetration.

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**biohaven**

MoDE™ and TRAP™ Degraders  
Precision technology to  
**TRANSFORM LIVES**  
BECAUSE  
**DAYS MATTER™**

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**NEXT-WAVE DEGRADERS**  
Novel Assets and  
Next-Generation  
Technology





**David Pirman, PhD**  
*SVP, Head of Drug Discovery*

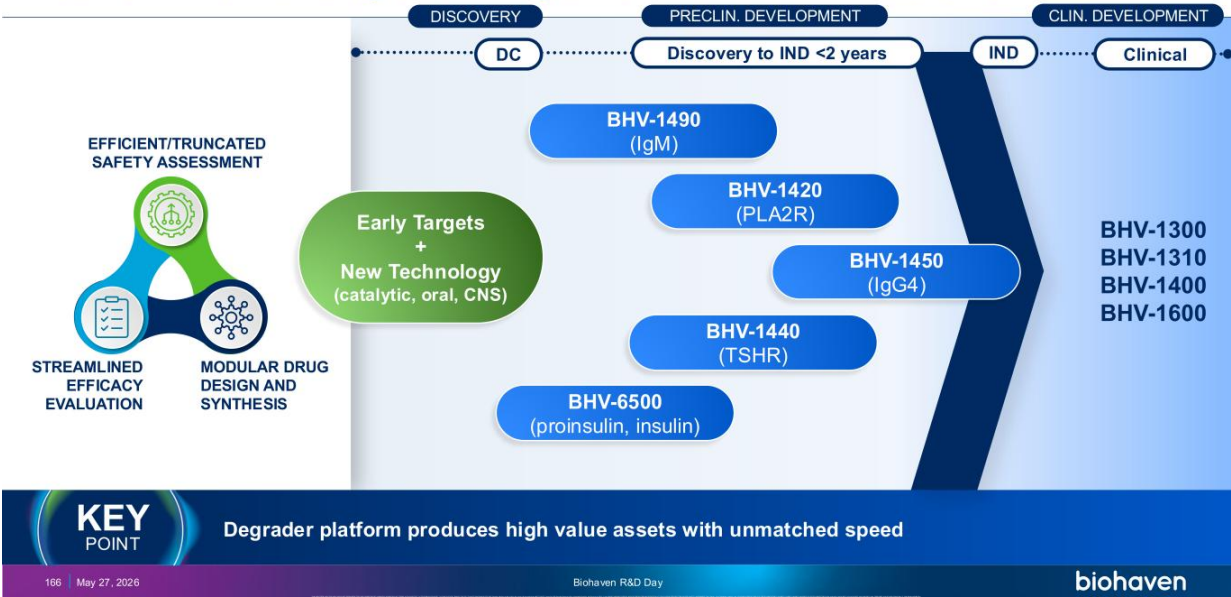
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Next-Generation Degradation Innovation

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# Current Pre-IND Degradable Programs Offer a Sustainable Portfolio



# Building an Extensive Asset Platform With MoDEs™ and TRAPs™

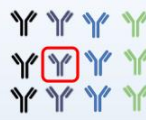
DISCOVERY



**MoDE™**  
e.g., IgG, IgM



**MoDE IgG4 Subclass**  
e.g., MuSK myasthenia gravis,  
pemphigus vulgaris



**TRAP™ Targeting AAb,  
Antigen or Protein**  
e.g., IgAN, Graves',  
idiopathic membranous nephropathy

Aligning disease indications with appropriate degrader technology

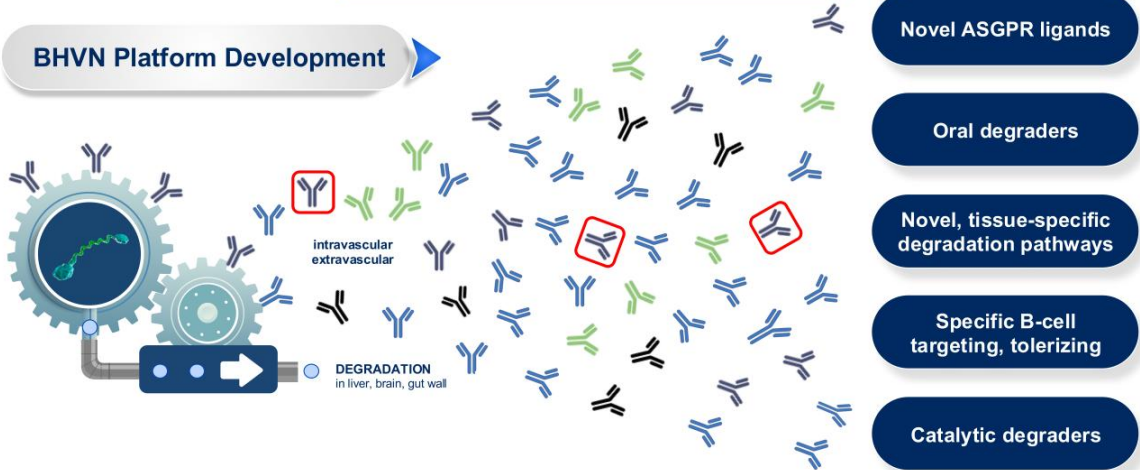
Novel degrader approaches and technologies created  
to address novel targets and unmet need

\*Indications are exemplary, many of which are early programs.

# Beyond MoDEs™ and TRAPs™: Novel Technologic Solutions Drive Improved Efficacy and Target Profiles

DISCOVERY

## MULTIPLE TECHNOLOGY SOLUTIONS



biohaven®

BHV-1440  
TSHR TRAP™ Targeting  
Autoantibodies Driving  
Graves' Disease



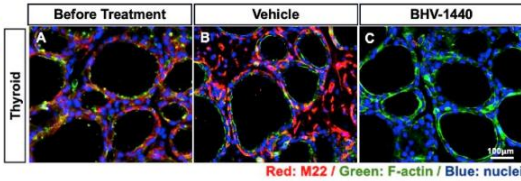
DAYS  
MATTER™

# BHV-1440 Anti-TSHR Auto-Ab TRAP™ Degradator for the Treatment of Graves' Disease

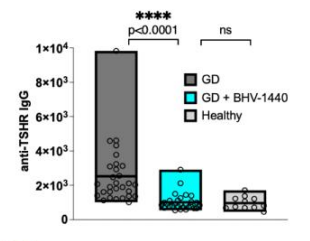
DISCOVERY



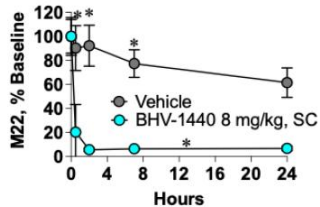
Specific removal of anti-TSHR autoantibody from tissue and circulation



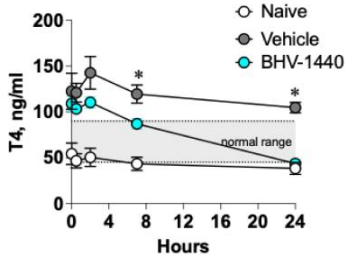
BHV-1440 Captures Anti-TSHR Autoantibodies in GD Patient Samples



BHV-1440 Rapidly Depletes Patient-Derived Anti-TSHR IgG (M22) From Circulation and Normalizes T4 Levels



BHV-1440 Rapidly Normalizes T4 Levels



biohaven®

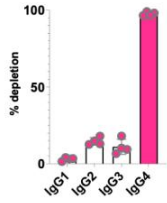
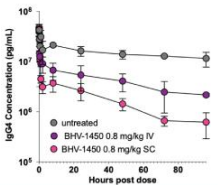
BHV-1450  
IgG4 MoDE™ Degradar  
for the Treatment of  
Pemphigus Vulgaris



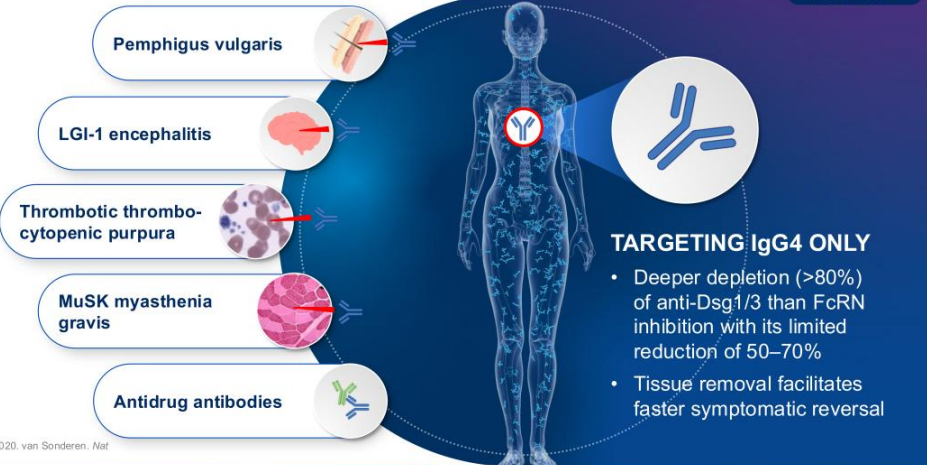
DAYS  
MATTER™

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

DISCOVERY



Mori. Am. J. Pathol. 2012. Konecny. Autoimmun Rev. 2020. van Soderen. Nat Rev Neurol. 2017.



**KEY POINT** BHV-1450 specifically degrades the IgG4 subclass: IgG1, IgG2 and IgG3 remain  
 BHV-1450 on track for IND in Q1 2027

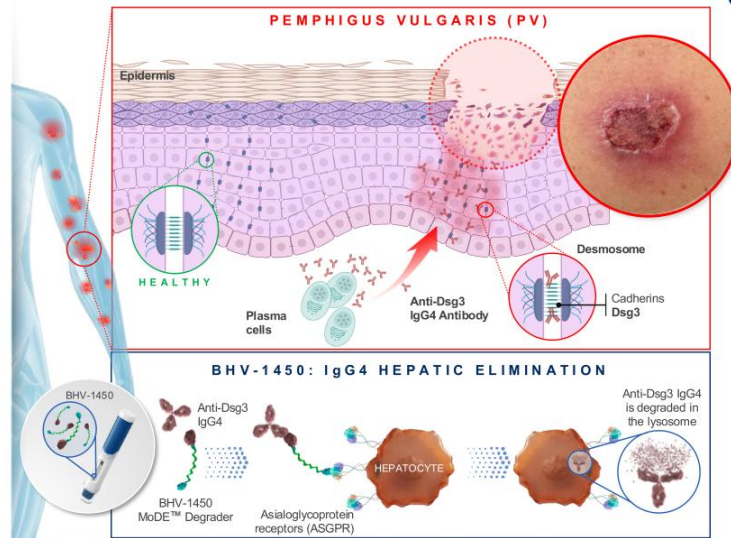
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# BHV-1450, an IgG4 Selective Degradator, Reverses the Anti-Dsg3-Mediated Skin Damage of Pemphigus Vulgaris

DISCOVERY

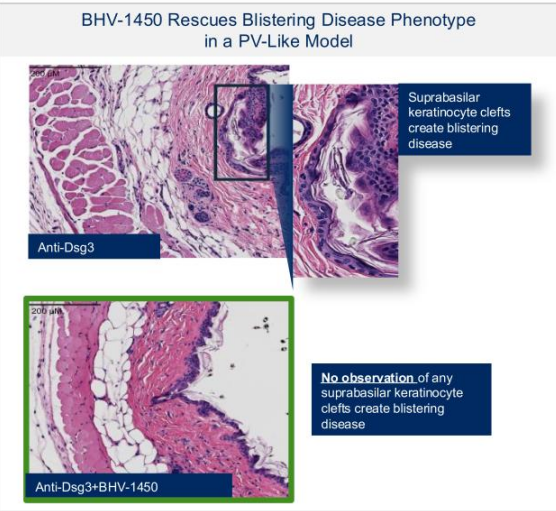
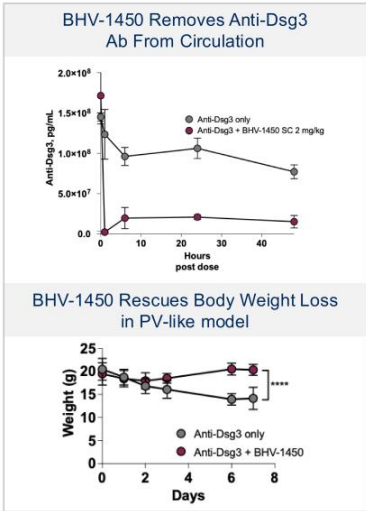
## PEMPHIGUS VULGARIS (PV)

- Impacting 30–50K patients in the US
- PV is a painful, blistering, autoimmune disease with skin and mucous membrane erosions
- IgG4 autoantibodies target desmoglein 3 (Dsg3), essential for keratinocyte cell-cell adhesion



# BHV-1450 Rapidly Removes Anti-Desmogleins Which Drive Disease From Circulation and From Tissue

DISCOVERY



biohaven®

BHV-1490  
IgM MoDE™ Degradar  
Treatment of IgM-Driven  
Disease



DAYS  
MATTER™

# Removal of IgM Specifically Addresses Several Diseases

DISCOVERY

**Anti-MAG Neuropathy**

**Multifocal Motor Neuropathy**

**Waldenström's Macroglobulinemia**

**Cold Agglutinin Disease**

**Anti-phospholipid Syndrome**

**TARGETING IgM ONLY**

- Antigen recognition (autoimmunity)
  - IgM neuropathy, APS (IgM only)
- Overproduction
  - MGUS
  - IgM Myeloma, MyD88, Waldenström's macroglobulinemia

Existing IgM-lowering therapies are immunosuppressants (BLyS/APRIL, rituximab), narrow therapeutic index chemotherapeutics (ibrutinib, bendamustine) or inconvenient (plasmapheresis)

**An IgM MoDE™ preserves all non-IgM isotypes and IgG subclasses**

**KEY POINT**

BHV-1490 specifically and deeply degrades the IgM isotype of immunoglobulins

# IgM-Mediated Diseases Have Significant Unmet Need and Are Suitable for MoDE™ Degraders

DISCOVERY

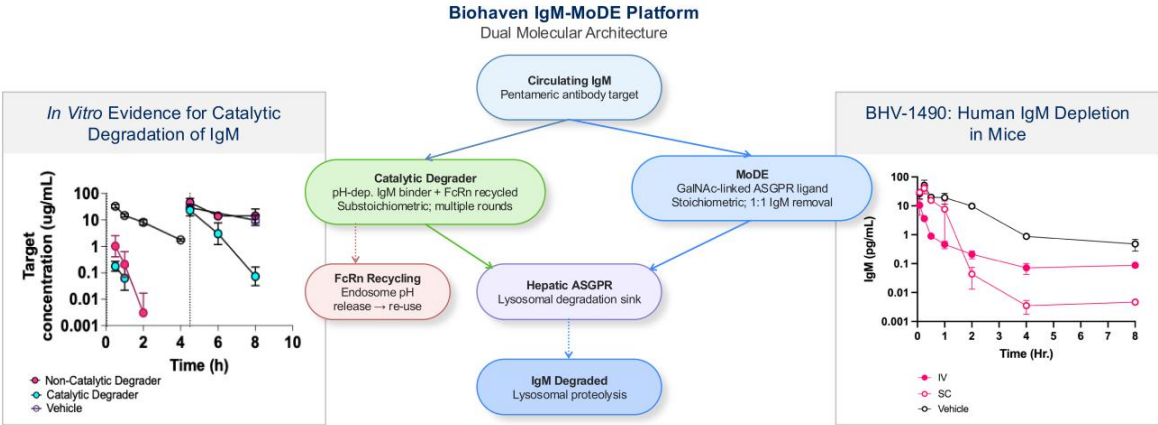
## IgM-mediated diseases caused by pathogenic autoreactive IgM

Significant market opportunity in IgM-mediated diseases with unmet clinical need with streamlined clinical path towards POC

Indication	US Patients	IgM Burden	Competition	Rationale and endpoint	Pricing Structure
Anti-MAG neuropathy	5–10K	Low	None approved; rituximab off-label ~\$15K	<ul style="list-style-type: none"> <li>Anti-MAG titer is low — attractive for SC autoinjector dosing</li> <li>IgM titer and nerve conduction velocity</li> </ul>	Orphan; first-in-class
Multifocal motor neuropathy	3–5K	Low	IVIg ~\$136–500K/yr (infusion)	<ul style="list-style-type: none"> <li>Anti-GM1 IgM is low-titer monoclonal. Stoichiometric SC weekly dose tractable.</li> <li>IgM titer and grip strength</li> </ul>	SC vs. IVIG cost-effectiveness
APS-IgM only	3–7K	Low	Warfarin <\$1K/yr; rivaroxaban ~\$5K/yr	<ul style="list-style-type: none"> <li>IgM aCL/aβ2GPI titers are low in isolated phenotype — no class-switch</li> <li>IgM titer-stroke recurrence</li> </ul>	First IgM-specific label; stroke value ~\$250K
Schnitzler syndrome	200	Very Low	Anakinra off-label ~\$80K/yr	<ul style="list-style-type: none"> <li>Lowest IgM titer of all indications. MGUS-level monoclonal IgM</li> <li>IgM titer UAS7, C-reactive protein</li> </ul>	Ultra-rare orphan; no approved IgM-directed Rx
Cold agglutinin disease	5K	Medium	Sutimimab (Enjaymo) \$440K/yr WAC	<ul style="list-style-type: none"> <li>Monoclonal IgM is high but levels could be assessed and lowered over time</li> <li>Hemoglobin</li> </ul>	Below sutimimab; SC vs. IV

# IgM Degraders: Catalytic and MoDE™ Degraders Provide Optionality Across Indications

DISCOVERY



**KEY POINT**

- BHV-1490 leverages a novel ASGPR ligand to rapidly remove IgM from circulation
- BHV-1490 on track to initiate preclinical development in 2027

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**Malini Gupta, MD,  
ECNU, FACE, FITS**

*Director of G2Endo, Endocrinology  
and Metabolism 2025 AACE Chair*

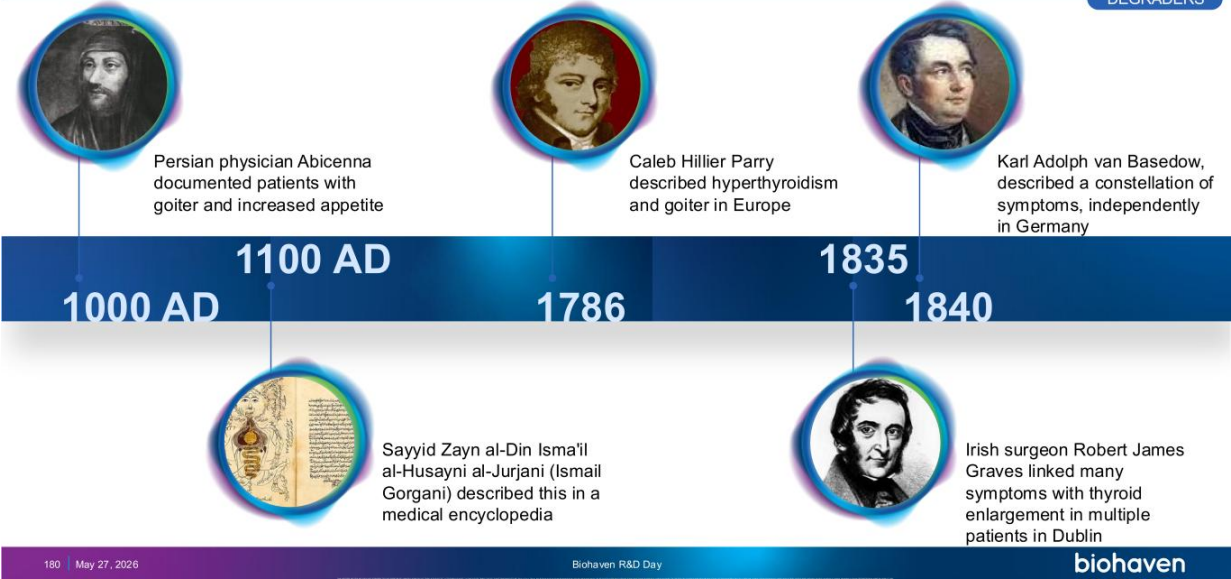


## **Graves' Disease: Old Disease, New Therapeutic Landscape**

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# History of Graves' Disease

DEGRADERS



## Dr. Robert Graves

---

His fame rests chiefly on his Clinical Lectures, which were a model for the day and recommended by Armand Trousseau in France (1801–1867), who suggested the term Graves' disease.

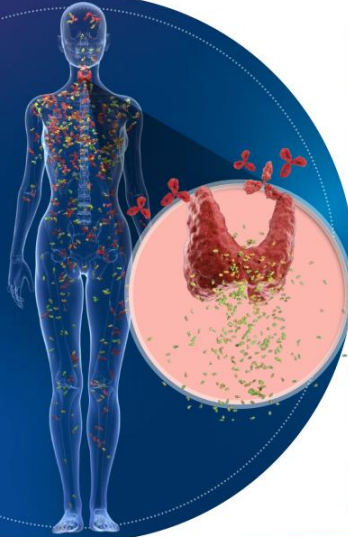
Trousseau was the first in France to perform a tracheotomy, and he wrote a monograph on this as well as intubation in 1851.



# What is Graves' Disease?

DEGRADERS

Graves' disease is an immune system disorder that affects the thyroid gland. It causes the body to make too much thyroid hormone.



Nervousness, irritability  
insomnia, depression

Broken hair, hair loss

Weight loss, strong  
feeling of hunger,  
diarrhea

Enlarged thyroid gland

Fragile fingernails,  
shaking hands

Increased heart rate,  
arrhythmia, high blood  
pressure

Warm, moist skin,  
increased body  
temperature

Muscle cramps,  
muscle weakness

Miscellaneous cycle disorders

# Demographics: Graves' Disease Impacts 1% of the Global Population

DEGRADERS

Graves' disease affects nearly 1 in 100 Americans.<sup>1</sup>



About 4 out of 5 cases of hyperthyroidism in the United States are caused by Graves' disease.<sup>1</sup>



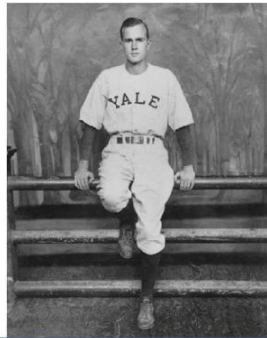
1. Akram. Journal of Surgical Research, 2020. 2. McLeod. Endocrine, 2012.

## Worldwide incidence of Graves' disease<sup>2</sup>



## Notable Persons With Graves' Disease

DEGRADERS



**George H.W. Bush**

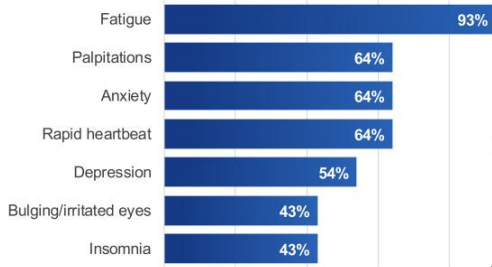


**Barbara Bush**

- Actor Marty Feldman
- Actor Rodney Dangerfield
- Sprinter Gail Devers
- Singer Missy Elliott
- Artist Yayoi Kusama
- Actress Dame Maggie Smith

# The Under-Recognized Burden of Graves' Disease<sup>1</sup>

DEGRADERS



1. Patient Burden in Graves' Disease: Results From a Mixed Methods Survey

93%

report multiple symptoms (≥2)

79%

experience 4+ symptoms

72%

experience 5+ symptoms

Even among biochemically well-controlled patients, **75% report recurring symptoms** — fatigue, palpitations, anxiety, weight gain



**Courtney**  
Living with Graves' disease



Current treatments achieve biochemical control but do not address the underlying antibody-driven disease, antibodies continue to circulate, targeting the thyroid, orbit, brain, and crossing the placenta

# Living With Graves' Disease — The Human Toll<sup>1</sup>

DEGRADERS

## EMOTIONAL TOLL

**100%**  
Emotional

**57%**  
Physical

**50%**  
Social

## FUNCTIONAL IMPACT

**36%**  
Daily activities

**36%**  
Family planning

**29%**  
Work/financial

“ **The anxiety makes it really hard to do normal people stuff sometimes.** I'll drive to the grocery store and then not go inside because I have anxiety for no reason. — Patient A



“ **I had to leave my job.** I don't get to see my friends as much anymore. — Patient B

“ I'm 90% a no on having children... knowing that that's an option **being taken away without my choice** affects it. — Patient C

Emma  
Living with Graves' disease

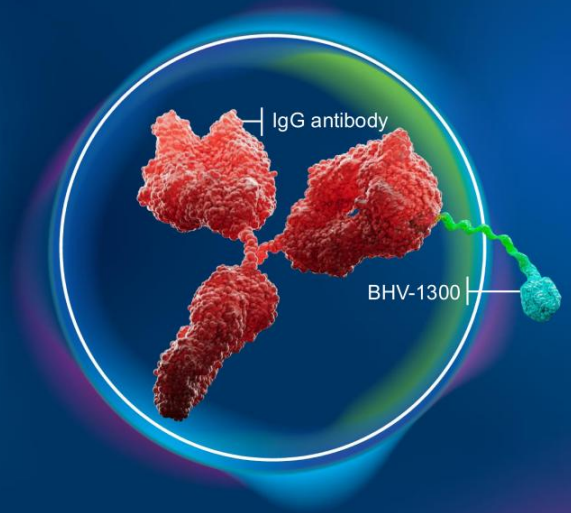
1. Patient Burden in Graves' Disease: Results From a Mixed Methods Survey



Patients on antithyroid drugs continue to suffer. Symptoms are pervasive and multi-system.

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# The Science of Graves' Disease



# How Is Graves' Disease Diagnosed?

DEGRADERS



## History

- History of symptoms and review of symptoms
- Family history of autoimmune disease, thyroid disease
- Social history



## Physical Exam

Including eye and hearing



## Lab Testing

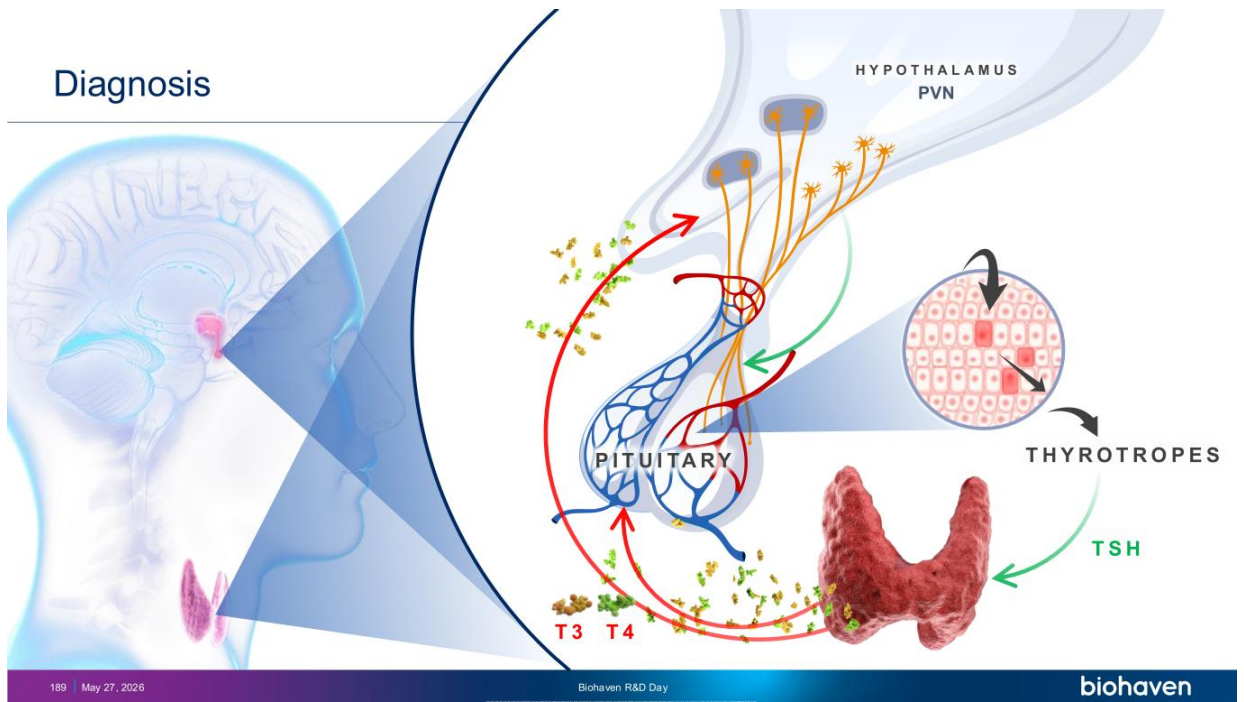
TSH, free T4, free T3, TRAb, TSI, TPO Ab



## Imaging

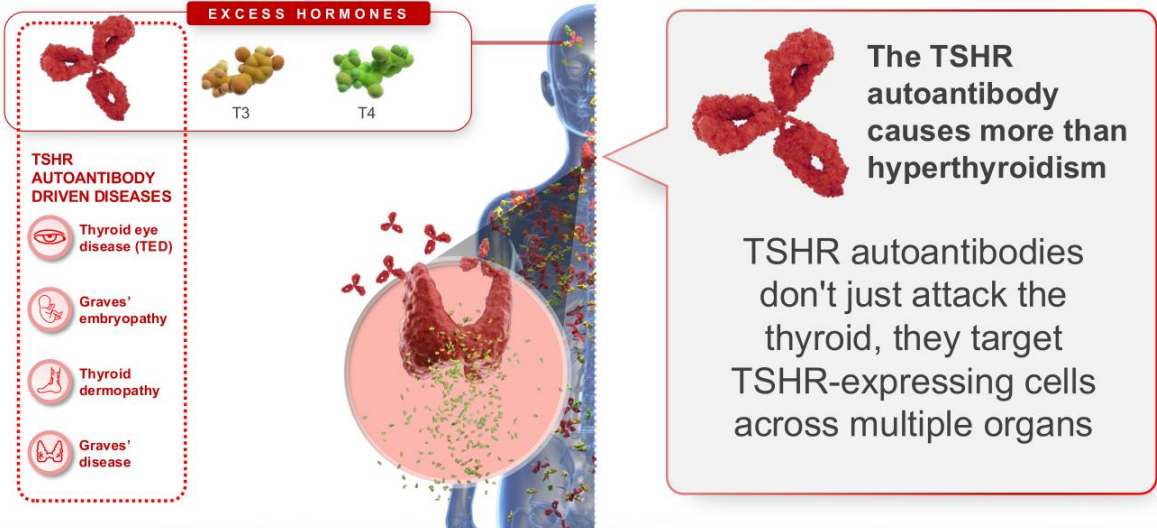
Ultrasound, CT, I-123 thyroid uptake and scan

# Diagnosis





# Root Cause of Graves' Disease and Extrathyroidal Manifestations

DEGRADERS



# TSHR Autoantibodies (TSHR-IgG1) Cause Hyperthyroidism

DEGRADERS

	Hyperthyroidism (from a toxic nodule)	Graves' disease hyperthyroidism	Autoimmune hypothyroidism (Hashimoto's)
Thyroid stimulating hormone (TSH)	↓	↓	↑
Thyroxine (T4) 	↑	↑	↓
Thyronine (T3) 	↑	↑	↓
Thyroid receptor antibody (TRAb)	-	+	-
Thyroid stimulating immunoglobulin (TSI)	-	+	-
Thyroid peroxidase antibody (TPO Ab)	-	+	+

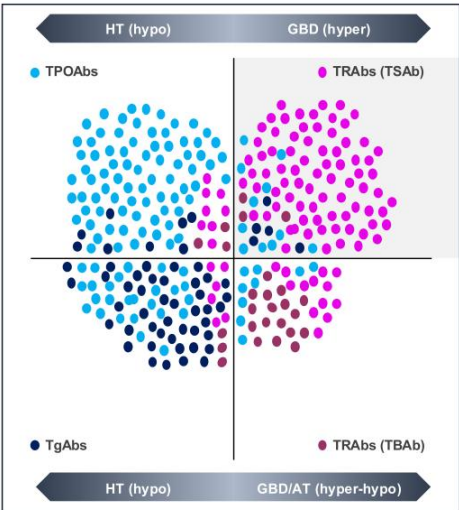


TSHR-IgG1 causes Graves' Hyperthyroidism, the diagnosis of which is made when a patient has elevated thyroid hormones and TSHR autoantibodies present

# The Antibody Landscape in Autoimmune Thyroid Disease

Most Hashimoto's patients have TPO antibodies, these attack the thyroid and cause it to underproduce hormones (hypothyroidism)

Some Hashimoto's patients also have thyroglobulin antibodies, a second marker, but less common



## Graves' patients have stimulating TRAb

These force the thyroid to overproduce hormones (hyperthyroidism)

A small group also have blocking TRAb, these shut the thyroid down, causing a rare shift from hyper- to hypothyroidism

Adapted from: Vargas-Uricoechea H, Nogueira JP, Pinzón-Fernández MV, Schwarzstein D. The Usefulness of Thyroid Antibodies in the Diagnostic Approach to Autoimmune Thyroid Disease. *Antibodies*. 2023; 12(3):48. <https://doi.org/10.3390/antib12030048>

## Thyroid Eye Disease (TED)

DEGRADERS



TRAb autoantibodies cross-react with IGF-1R on orbital fibroblasts which leads to inflammation and tissue remodeling



### CLINICAL CONSEQUENCES

- Proptosis (exophthalmos) — orbital fat expansion pushes the globe forward
- Lid retraction and stare
- Diplopia (double vision)
- Pain and pressure sensation
- Periorbital edema
- Vision loss (severe cases)

**KEY**  
POINT

50% of Graves' patients develop TED — it can occur even with normal thyroid function

## Pretibial Myxedema, a Form of Graves' Dermopathy

DEGRADERS



TRAb autoantibodies bind TSHR on dermal fibroblasts which leads to glycosaminoglycan deposition and dermal thickening.



### CLINICAL CONSEQUENCES

- Non-pitting, waxy skin plaques
- Hyperkeratosis and skin thickening
- Cosmetic disfigurement
- Discomfort and reduced mobility (severe)
- Elephantiasic form (rare, most severe)
- **Can extend to feet, ankles, arms and other sites**

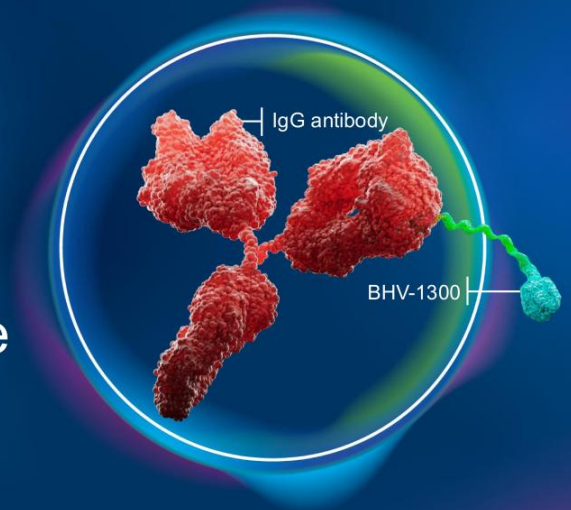
**KEY**  
POINT

Like TED, pretibial myxedema is driven by TRAb autoantibodies activating fibroblasts, a shared autoimmune mechanism, different tissue target

biohaven®

**NEW TREATMENTS IN  
GRAVES' DISEASE**

**The Evolving  
Therapeutic Landscape**



# Current Treatments for Graves' Disease

## CONSERVATIVE

- 1** Use of thionamides (ATDs, like methimazole, carbimazole, and propylthiouracil (PTU))  
*Aplastic anemia, granulocytosis, peripheral neuritis, liver issues, secreted in breastmilk*
- 2** Use of steroids

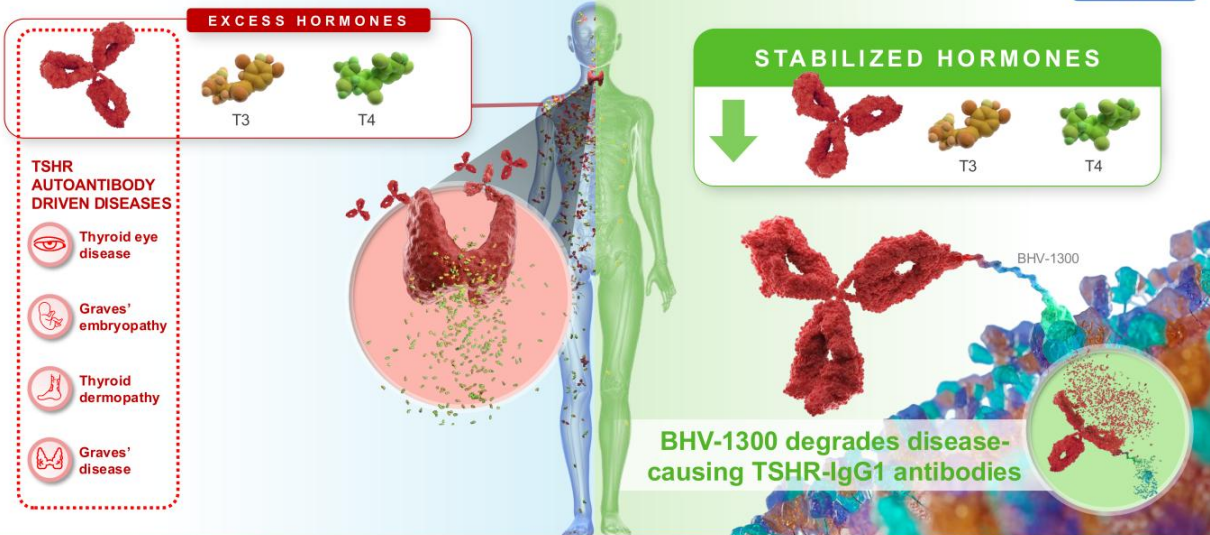
## ABLATIVE

- 3** **Surgical removal of the thyroid**  
Lifelong T4 replacement, surgical complications
- 4** **Use of I-131 radiation treatment**  
Cannot use in pregnancy, TED worsens



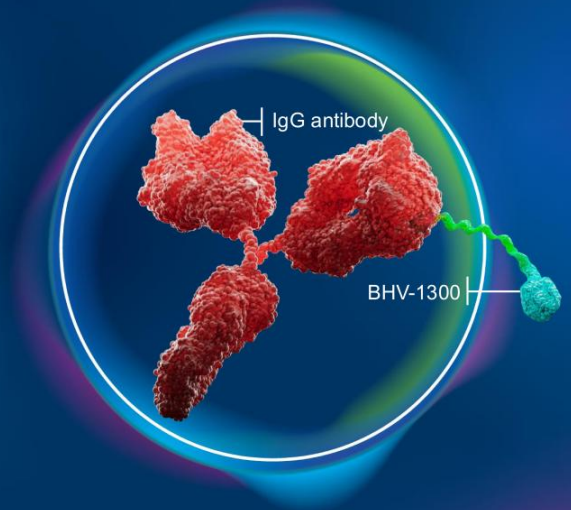
# BHV-1300 MoDE™ Targets the Root Cause of Graves' Disease and TSHR Autoantibody-Driven Diseases

DEGRADERS



biohaven®

# BHV-1300 in Graves' Disease



# Not FcRn Inhibitor: Biohaven IgG MoDE™ Degradator Differentiates as a Novel MOA, Potential Paradigm Shifting Therapy

DEGRADERS

**83% IgG LOWERING BY DAY 18**

**DID NOT INCREASE HEADACHES**

**DID NOT INCREASE CHOLESTEROL**

**SMALL MOLECULE**

**AUTOINJECTOR ADMINISTRATION IN PIVOTAL TRIALS**

**biohaven®**

BHV-1300

IgG antibody

**IMAAVY™**  
J&J

- 74.6% IgG lowering after load, 68.8% in maintenance in Vivacity MG-31,2
- **IV infusion**
- Increased cholesterol (24%), muscle spasms (12%), edema (12%)

**Vyvgart®**  
argenx

- Approximately 61% IgG lowering at 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. Median of the maximal total IgG % change from baseline 2. 84% IgG lowering (twice the labeled frequency) in Phase 1 Ling. Clin Pharmacol Ther. 2019. 3. Howard, Jr. ADAPT (SC) Data – 2024; 4. Urrutia. J. Clin. Invest. 2018; 5. MAD data unavailable. MG Data from Brill, Lancet Neurology. 2023 – MyCarinG study.

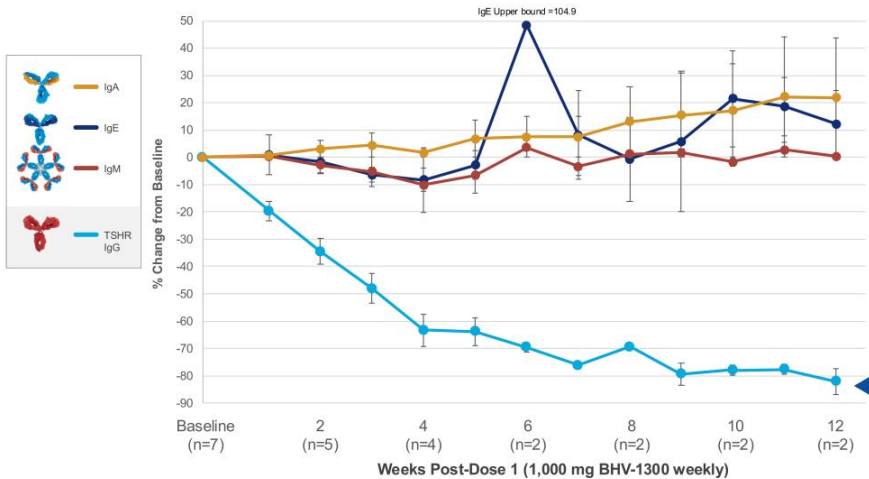
199 | May 27, 2026

Biohaven R&D Day

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# BHV-1300 Rapidly Degrades Disease-Causing Autoantibodies That Target the Thyroid-Stimulating Hormone Receptors (TSHR) in Patients with Graves' Disease

DEGRADERS

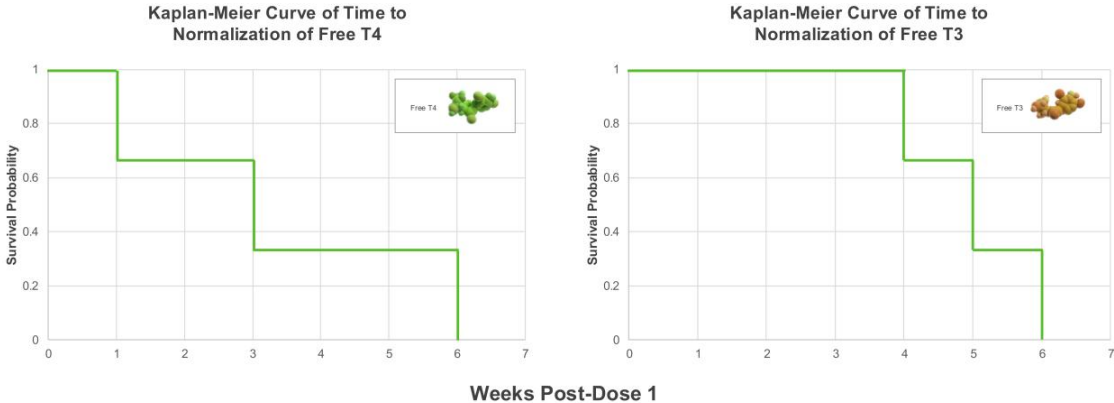


**BHV-1300  
RAPIDLY REMOVES  
>80% OF TSHR  
AUTOANTIBODIES**  
the root cause of  
Graves' disease

Preliminary data from ongoing study, analysis conducted May 20, 2026. \*Graph represents mean in participants administered BHV1300 1,000 mg SC weekly. Values below the lower limit of quantification were set to a value of LOQ/2.

# BHV-1300 Rapidly Normalizes Thyroid Hormones in Patients With Graves' Hyperthyroidism

DEGRADERS



Preliminary data from ongoing study, analysis conducted April 8, 2026. Graphs represent time to normalization of Free T3 and Free T4 in participants (n=3) with Graves' disease and overt hyperthyroidism at baseline administered BHV-1300 1,000 mg SC weekly for 12 weeks (n=2) or BHV-1300 1000 mg SC weekly for 4 weeks followed by 500 mg SC weekly for 8 weeks (n=1).

**KEY POINT** In hyperthyroid patients receiving BHV-1300 1,000 mg SC weekly, Free T4 normalized within an average of 3 weeks and Free T3 normalized within an average of 5 weeks

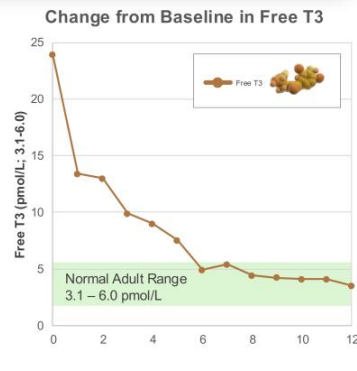
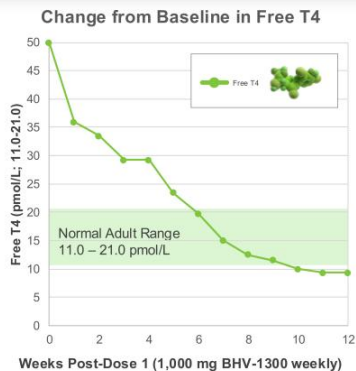
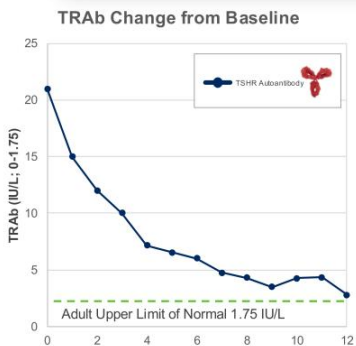
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# Early Graves' Patient Experience: Most Severely Hyperthyroid Patient BHV-1300 Rapidly Normalizes Thyroid Hormones

DEGRADERS

## CASE DETAILS

- Male patient in his late 50s
- Severely elevated thyroid hormone levels at baseline
- Patient reported **improvement in sweating, palpitations, diarrhea, fatigue and motivation** at 30 days compared to baseline
- TSH normalized within 12 weeks of BHV-1300 initiation



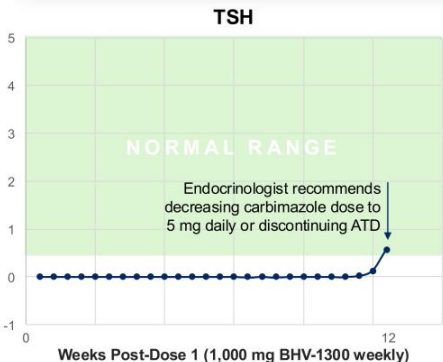
Preliminary data from ongoing study, analysis conducted April 8, 2026.

# Early Graves' Patient Experience: Severely Hyperthyroid Patient BHV-1300 Rapidly Normalizes TSH and Hyperthyroid Symptoms

DEGRADERS

## CASE DETAILS

- Male patient in his late 50s
- Severely elevated thyroid hormone levels at baseline
- Patient reported **improvement in sweating, palpitations, diarrhea, fatigue and motivation** at 30 days compared to baseline
- TSH normalized within 12 weeks of BHV-1300 initiation



Baseline	Thyro-39 symptoms	End of dosing
	Trembling hands	Resolved
	Sweating	Resolved
	Palpitations	Resolved

Preliminary data from ongoing study, analysis conducted April 8, 2026.

# Lead MoDE™ Degradar, BHV-1300, Enters Phase 3

DEGRADERS



## KEY STUDY DETAILS

**Study Design:** Randomized, double-blind, placebo-controlled trial  
**Population:** Male and female adults with Graves' disease  
**Endpoints:** Normal T3, T4 and TSH off ATD at week 26

ATD, antithyroid drugs



BHV-1300 pivotal trial in Graves' disease to commence in the coming weeks

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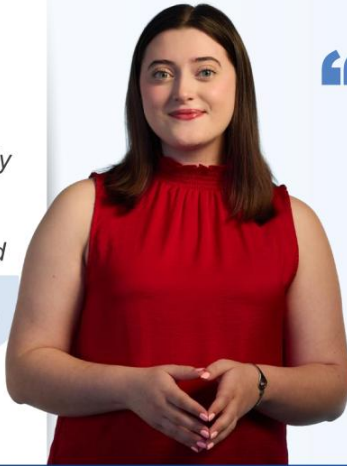
Biohaven R&D Day

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# Patients Want To Target the Root Cause<sup>1</sup>

DEGRADERS

“That's the most attractive thing, **removing the root cause rather than putting a Band-Aid on it**. It's essentially like **repairing the thyroid** or putting it **back into its original coding**, that it should work the way that it was originally designed to do.”



“Going back to root cause is a pretty big deal. A lot of times, treatments just cover the symptoms. **You're putting a Band-Aid over what is a much larger wound.**”

Paige  
Living with Graves' disease

1 Patient Burden in Graves' Disease: Results From a Mixed Methods Survey



**BHV-1300 is a precision degrader designed to target the autoantibody — addressing the root cause of Graves' disease**



**Professor Jonathan  
Barratt, PhD, FRCP**

*The Mayer Professor of Renal Medicine,  
Department of Cardiovascular Sciences*

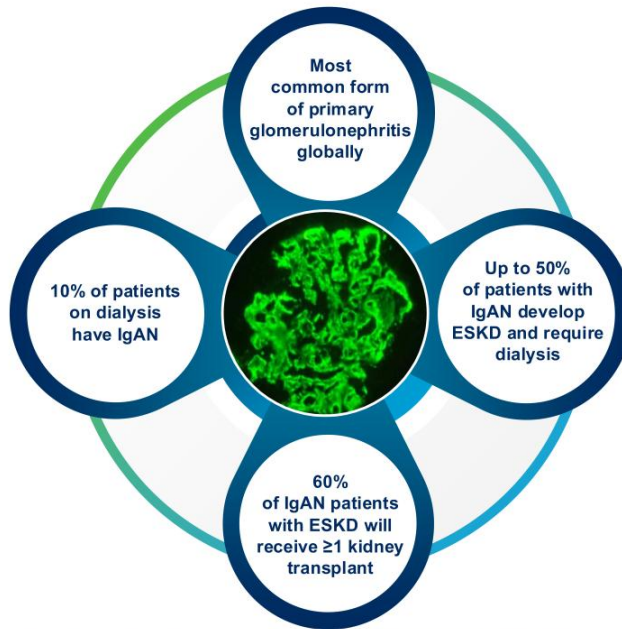


**BHV-1400 for IgA Nephropathy**

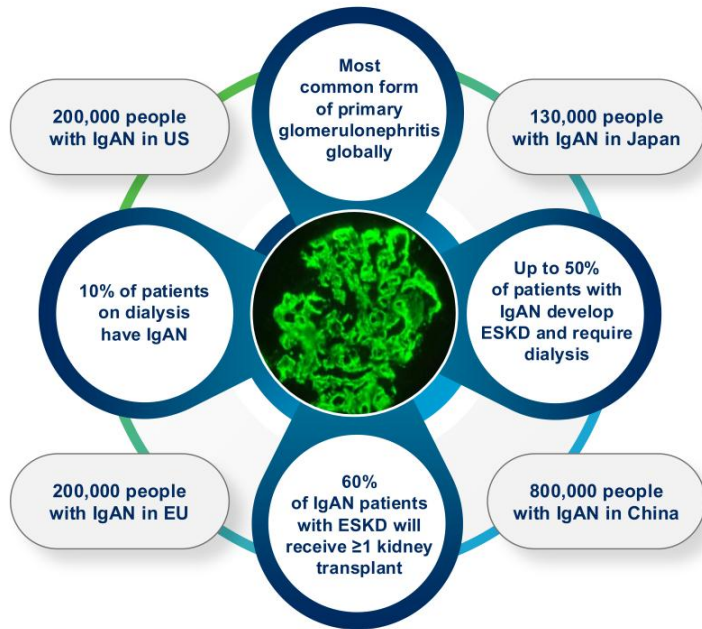
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## Jonathan Barratt

<b>Consulting and speaker fees</b>	Alnylam, Argenx, Astellas, BioCryst, Calliditas, Chinook, Dimerix, Galapagos, Novartis, Omeros, Traverre Therapeutics, Vera Therapeutics, Visterra
<b>Grant support</b>	Argenx, Calliditas, Chinook, Galapagos, GlaxoSmithKline, Novartis, Omeros, Traverre Therapeutics, Visterra
<b>Clinical trials</b>	ADU-CL-19 and ALIGN (Chinook), APPLAUSE (Novartis), ARTEMIS-IGAN (Omeros), ENVISION (Visterra), NeflgARD (Calliditas), ORIGIN (Vera Therapeutics)
<b>Research projects</b>	Argenx, Calliditas, Chinook, Galapagos, GlaxoSmithKline, Novartis, Omeros, Traverre Therapeutics, Visterra



Barrett, 2026.



Barrett, 2026.

**SUMMARY OF RECOMMENDATION STATEMENTS AND PRACTICE POINTS**

**IMMUNOGLOBULIN A NEPHROPATHY**

**2.1 Diagnosis**

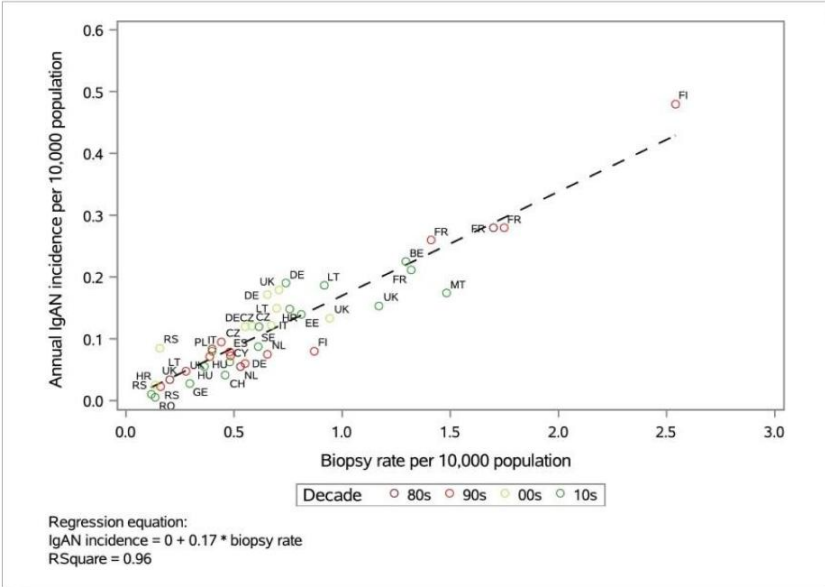
Practice Point 2.1.1: Considerations regarding the diagnosis of immunoglobulin A nephropathy (IgAN):

- IgAN can only be diagnosed with a kidney biopsy, as there are no validated diagnostic serum or urine biomarkers for IgAN.
- To ensure an early diagnosis and prompt treatment of IgAN, a kidney biopsy should be performed in all adults with proteinuria  $\geq 0.5$  g/d (or equivalent) in whom IgAN is a possible diagnosis and who do not have a contraindication for kidney biopsy.
- Once a diagnosis of IgAN is made, assess for secondary causes.
- In cases of primary IgAN, determine the MEST-C score (mesangial [M] and endocapillary [E] hypercellularity, segmental sclerosis [S], interstitial fibrosis/tubular atrophy [T], and crescents [C]) according to the revised Oxford Classification.<sup>30</sup>

**2.1 Diagnosis**

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## Effects of rare kidney diseases on kidney failure: a longitudinal analysis of the UK National Registry of Rare Kidney Diseases (RaDaR) cohort

Kate Wang, David Pritchard, Eileen Bradburn, Jane Stevenson, Barbara Overbury, Nicholas Anwar, Jonathan Barrett, Corrie Brydon, Constantine Chrysos, Richard Coward, David Galloway, Sara Griffin, Matt Hill, Sally Johnson, George Kung'u Ndolo, Fiona Kerr-Ford, David Kerridge, Emma Kendall, Ewanini Kibiki, Shabbir Khushfani, Jeremy Long, John A. Sayer, Sander Stevens, George Stribos, Shabbir Stribos, Frederick W. F. Tam, Andrew Neil Turner, Stephen D. Webb, Andy Weston, Patricia Wilson, Edwin Wong, Christopher Wood, Tahir Zia, David Zis, Alan Zis, and the RaDaR team

**Summary**  
Background: Individuals with rare kidney diseases account for 5–10% of people with chronic kidney disease, but constitute more than 25% of patients receiving kidney replacement therapy. The National Registry of Rare Kidney Diseases (RaDaR) gathers longitudinal data from patients with these conditions, which we used to study disease progression and outcomes of death and kidney failure.

**Methods:** People aged 0–96 years living with 28 types of rare kidney diseases were recruited from 108 UK renal care facilities. The primary outcomes were cumulative incidence of mortality and kidney failure in individuals with rare kidney diseases, which were calculated and compared with that of unselected patients with chronic kidney disease. Cumulative incidence and Kaplan–Meier survival estimates were calculated for the following outcomes: median age at kidney failure; median age at death; time from start of dialysis to death; and time from diagnosis to estimated glomerular filtration rate (eGFR) thresholds, allowing calculation of time from last eGFR of 75 ml/min per 1.73 m<sup>2</sup> or more to first eGFR of less than 30 ml/min per 1.73 m<sup>2</sup> (the therapeutic trial window).

**Findings:** Between Jan 18, 2010, and July 25, 2022, 2728 participants were recruited to RaDaR. Median follow-up time from diagnosis was 5.6 years (IQR 3.9–8.0). RaDaR participants had significantly higher 5-year cumulative incidence of kidney failure than 2.81 million UK patients with all-cause chronic kidney disease (35% vs 19%; *p* < 0.001), but better overall rates (standardised mortality ratio 0.42 [95% CI 0.32–0.52]; *p* < 0.001). Median age at kidney failure, median age at death, time from start of dialysis to death, time from diagnosis to eGFR thresholds, and therapeutic trial window all varied substantially between rare diseases.

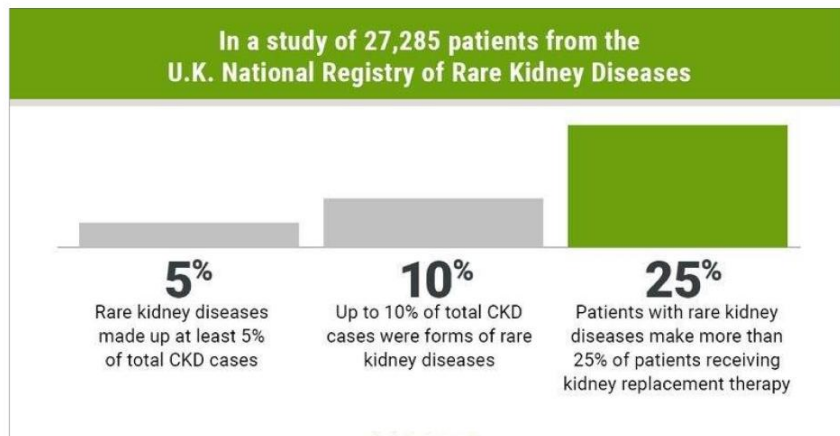
**Interpretation:** Patients with rare kidney diseases differ from the general population of individuals with chronic kidney disease: they have higher 5-year rates of kidney failure but higher survival than other patients with chronic kidney disease stages 3–5, and so are over-represented in the cohort of patients requiring kidney replacement therapy. Addressing current therapeutic need for patients with rare kidney diseases could have a large beneficial effect on long-term kidney replacement therapy demand.

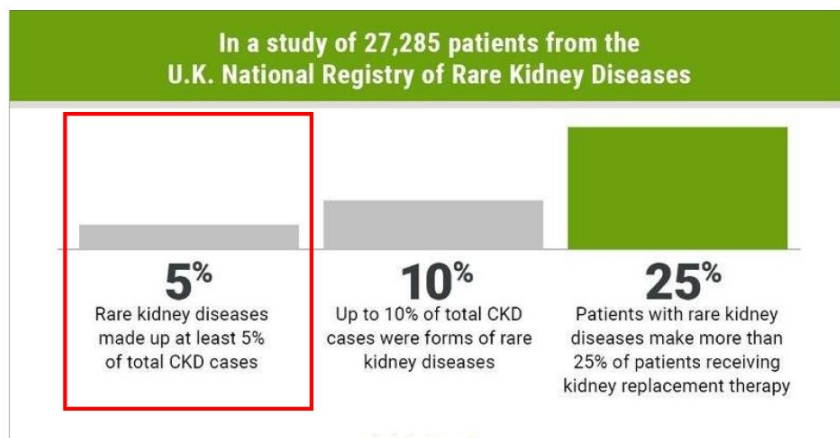
**Funding:** RaDaR is funded by the Medical Research Council, Kidney Research UK, Kidney Care UK, and the Polycystic Kidney Disease Charity.

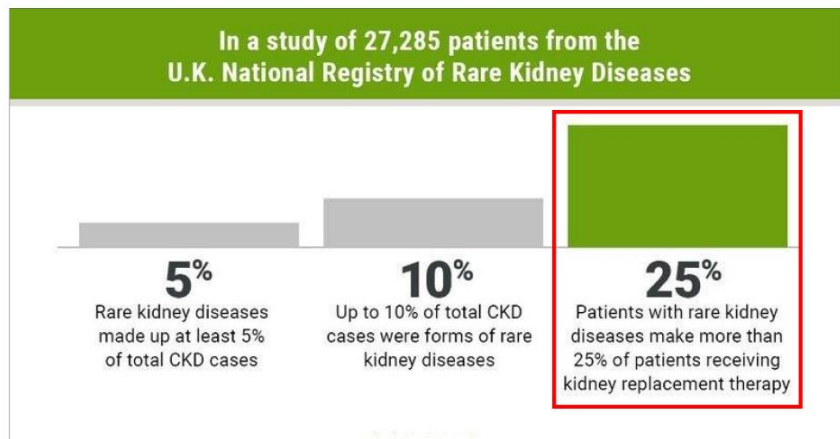
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**Introduction**  
Chronic kidney disease is an umbrella term for conditions resulting in impaired kidney function, and can be divided into five stages defined by estimated glomerular filtration rate (eGFR). Chronic kidney disease stages 3, 4, and 5 represent moderate to severe disease and affect an estimated 6–7% of the UK population over the age of 16 years and 12–7% of those older than 75 years.<sup>1</sup> The most common causes of chronic kidney disease stage 3 in high-income and middle-income countries are diabetes and hypertension.<sup>2</sup> Rare kidney diseases are generally defined as affecting fewer than 200 000 individuals in the USA,<sup>3</sup> or fewer than five









**Effects of rare kidney diseases on kidney failure: a longitudinal analysis of the UK National Registry of Rare Kidney Diseases (RaDaR) cohort**

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**Findings** Between Jan 18, 2018, and July 25, 2022, 27 285 participants were recruited to RaDaR. Median follow-up time from diagnosis was 9.4 years (IQR 5.0–16.7). RaDaR participants had significantly higher 5-year cumulative incidence of kidney failure than 2.81 million UK patients with all-cause chronic kidney disease (28% vs 1%; p<0.0001), but better survival rates (standardised mortality ratio 0.42 [95% CI 0.32–0.52], p<0.0001). Median age at kidney failure, median age at death, time from start of dialysis to death, time from diagnosis to eGFR threshold, and therapeutic trial window all varied substantially between rare diseases.

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**Funding** RaDaR is funded by the Medical Research Council, Kidney Research UK, Kidney Care UK, and the Polycystic Kidney Disease Charity.

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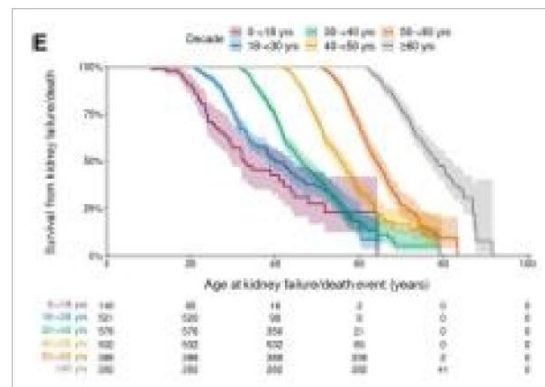
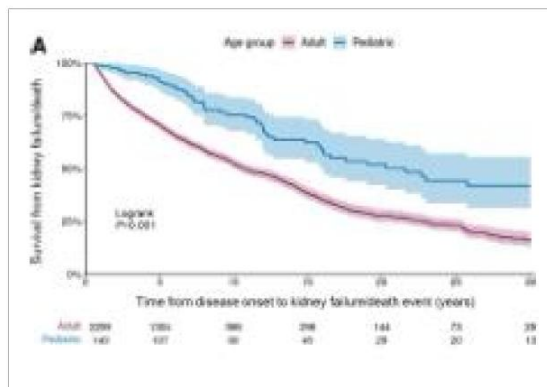
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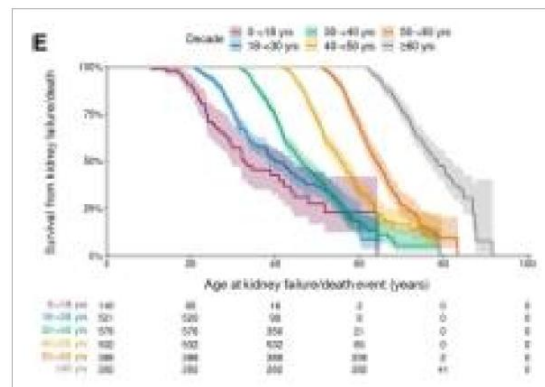
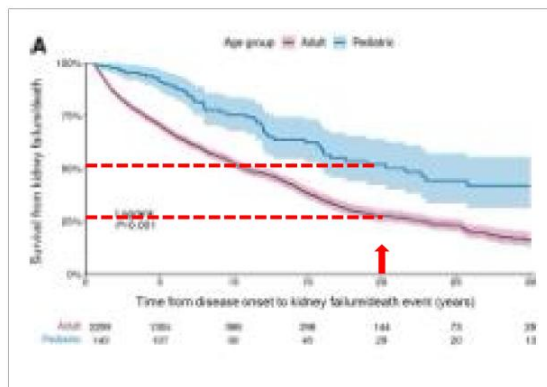
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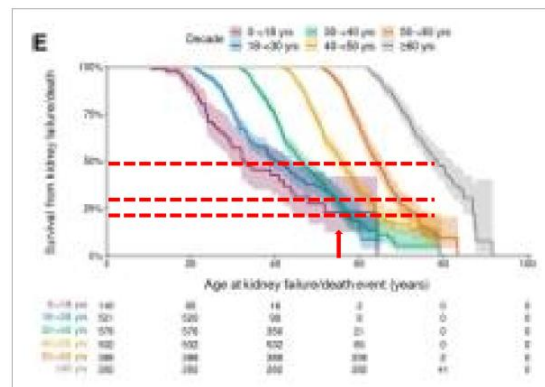
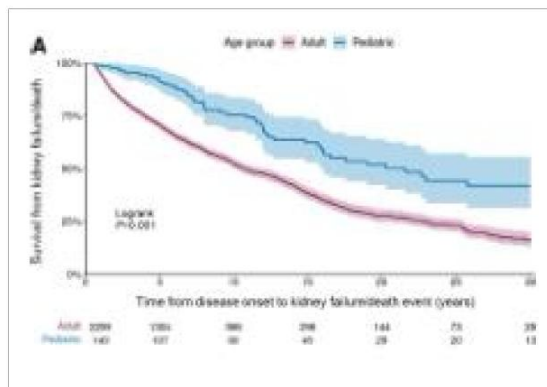
Patients with rare kidney diseases differ from the general population of individuals with chronic kidney disease: they have **higher 5-year rates of kidney failure** but **higher survival** than other patients with chronic kidney disease stages 3–5, and so are **over-represented in the cohort of patients requiring kidney replacement therapy**.

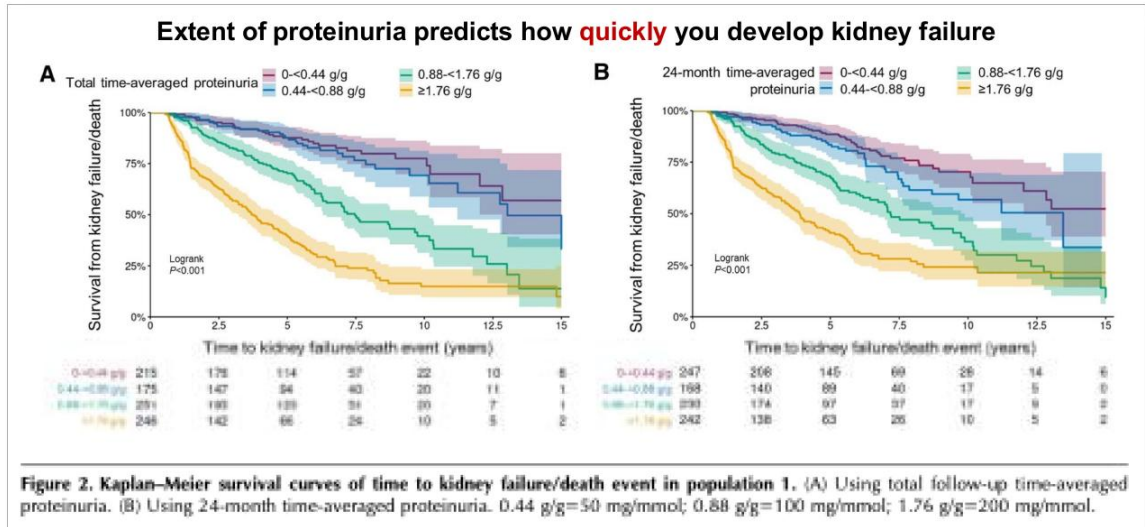
**Addressing unmet therapeutic need for patients with rare kidney diseases could have a large beneficial effect on long-term kidney replacement therapy demand.**

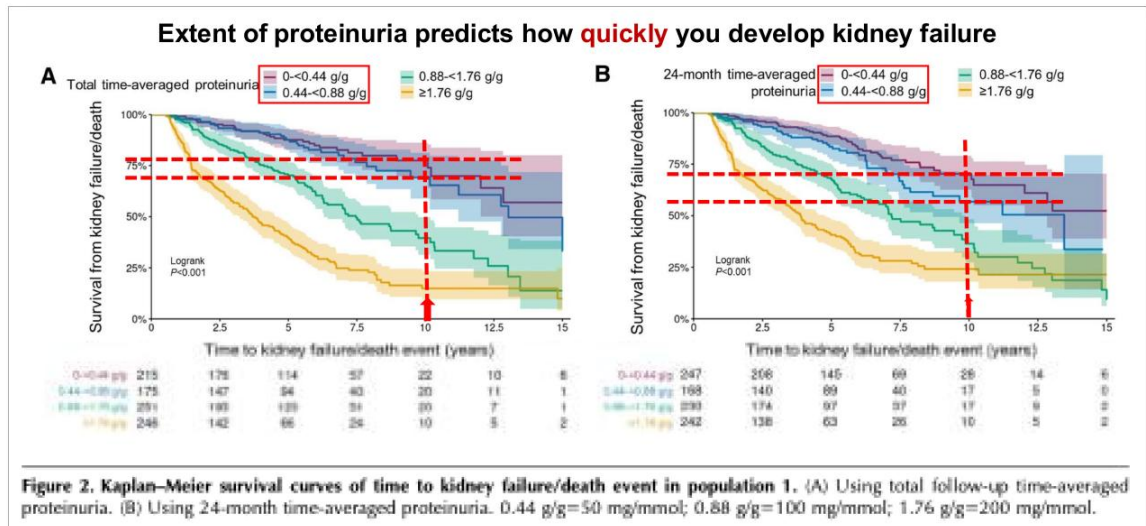


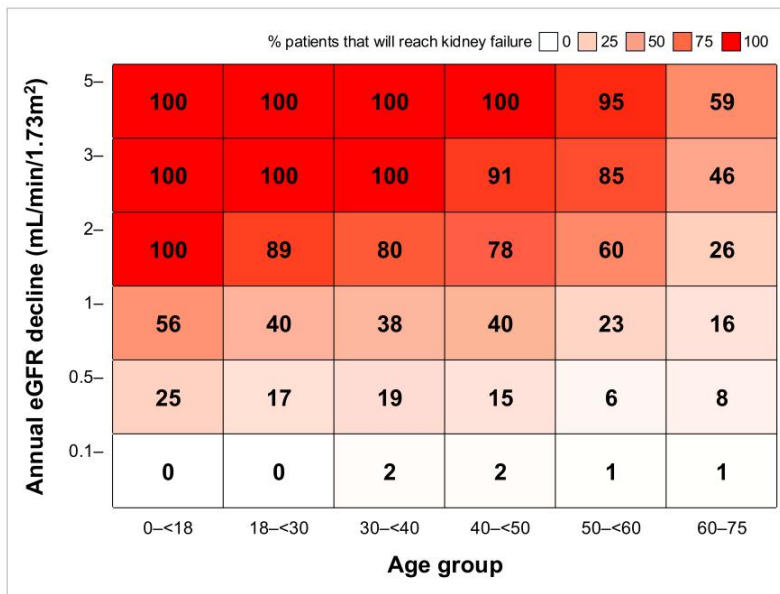


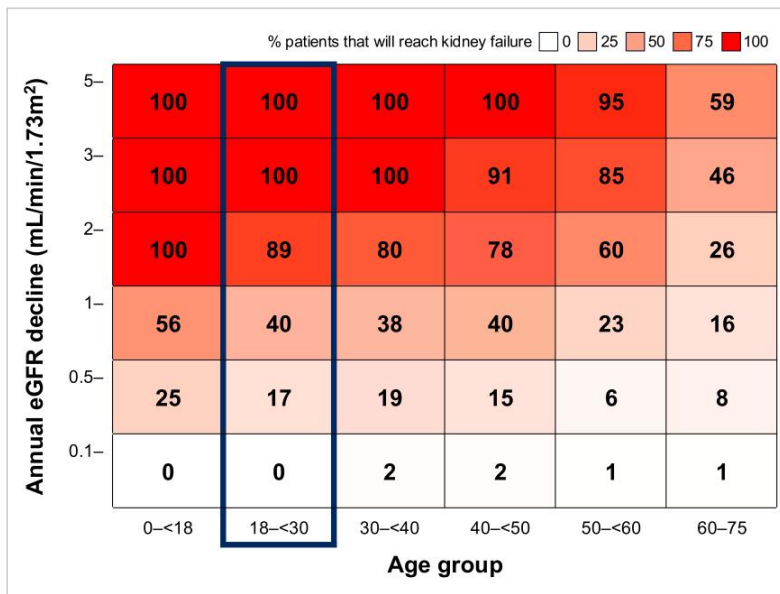


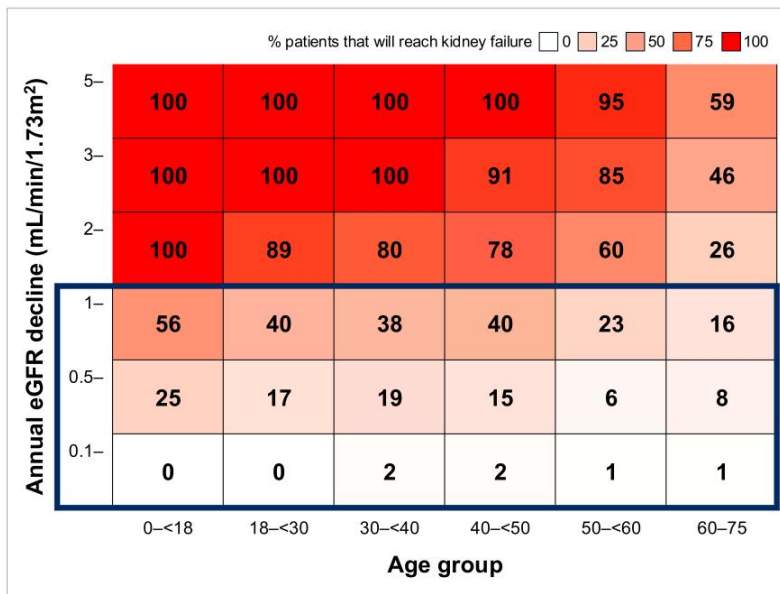














Original Article

### Long-Term Outcomes in IgA Nephropathy

Author names and affiliations for the UK study.

**Background:** IgA nephropathy is a common cause of chronic kidney disease. Long-term outcomes are poorly understood. We report outcomes at 20 years in a cohort of 100 patients with biopsy-proven IgA nephropathy.

**Methods:** We studied 100 patients with biopsy-proven IgA nephropathy who were followed up for 20 years. The primary endpoint was the composite of end-stage kidney disease, death, or transplantation. Secondary endpoints included the need for dialysis, transplantation, and mortality.

**Results:** At 20 years, 45 patients (45%) had reached the primary endpoint. The median time to end-stage kidney disease was 10.5 years. The median time to death was 12.5 years. The median time to transplantation was 11.5 years.



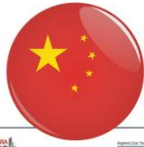
### Three-Year Clinical Outcomes of the First South Asian Prospective Longitudinal Observational IgA Nephropathy Cohort

Author names and affiliations for the Indian study.

**Background:** IgA nephropathy is a common cause of chronic kidney disease in South Asia. Long-term outcomes are poorly understood. We report outcomes at 3 years in a cohort of 100 patients with biopsy-proven IgA nephropathy.

**Methods:** We studied 100 patients with biopsy-proven IgA nephropathy who were followed up for 3 years. The primary endpoint was the composite of end-stage kidney disease, death, or transplantation. Secondary endpoints included the need for dialysis, transplantation, and mortality.

**Results:** At 3 years, 15 patients (15%) had reached the primary endpoint. The median time to end-stage kidney disease was 1.5 years. The median time to death was 2.5 years. The median time to transplantation was 3.5 years.



### Long-term outcomes of IgA nephropathy in China

Author names and affiliations for the Chinese study.

**Background:** IgA nephropathy is a common cause of chronic kidney disease in China. Long-term outcomes are poorly understood. We report outcomes at 10 years in a cohort of 100 patients with biopsy-proven IgA nephropathy.

**Methods:** We studied 100 patients with biopsy-proven IgA nephropathy who were followed up for 10 years. The primary endpoint was the composite of end-stage kidney disease, death, or transplantation. Secondary endpoints included the need for dialysis, transplantation, and mortality.

**Results:** At 10 years, 30 patients (30%) had reached the primary endpoint. The median time to end-stage kidney disease was 5 years. The median time to death was 7 years. The median time to transplantation was 8 years.



### CKD progression, kidney failure, and mortality among US patients with IgA nephropathy

Author names and affiliations for the US study.

**Background:** IgA nephropathy is a common cause of chronic kidney disease in the United States. Long-term outcomes are poorly understood. We report outcomes at 10 years in a cohort of 100 patients with biopsy-proven IgA nephropathy.

**Methods:** We studied 100 patients with biopsy-proven IgA nephropathy who were followed up for 10 years. The primary endpoint was the composite of end-stage kidney disease, death, or transplantation. Secondary endpoints included the need for dialysis, transplantation, and mortality.

**Results:** At 10 years, 25 patients (25%) had reached the primary endpoint. The median time to end-stage kidney disease was 6 years. The median time to death was 8 years. The median time to transplantation was 9 years.

**2.3 Treatment**

**2.3.1 Defining patients with IgAN at risk of progressive loss of kidney function requiring treatment**

**Practice Point 2.3.1.1:** A patient with IgAN is at risk of progressive loss of kidney function if they have proteinuria  $\geq 0.5$  g/d (or equivalent), while on or off treatment for IgAN, and treatment/additional treatment should be started in all cases.

**2.3.2 Defining a treatment goal in patients with IgAN at risk of progressive loss of kidney function**

**Practice Point 2.3.2.1:** The treatment goal in patients with IgAN at risk of progressive loss of kidney function is to reduce the rate of loss of kidney function to  $< 1$  mL/min per year for the rest of the patient's life. The only validated early biomarker to help guide clinical decision-making is urine protein excretion, which should be maintained at  $< 0.5$  g/d (or equivalent), preferably  $< 0.3$  g/d (or equivalent), accepting that in some patients with extensive kidney scarring this may not be possible and that multiple drugs are likely to be needed to achieve this.

**Practice Point 2.3.2.2:** Treatment of patients with IgAN who have kidney function decline and do not have a variant form of IgA1 should include:

- The focus of management in most patients
  - Prevent or reduce IgA immune-complex-mediated glomerular injury
  - In parallel, manage consequences of kidney disease
- Reduction of proteinuria
  - Treatments that have been proven to reduce pathogen-mediated injury (e.g., immunosuppressants) should be used as a replacement for, or in addition to, treatments that prevent complex formation.
- Management of the consequences of IgAN-induced nephron loss should include:
  - Lifestyle advice, including information on dietary sodium restriction, smoking cessation, weight control, and exercise, as appropriate.
  - Control of blood pressure with a target of  $\leq 120/70$  mm Hg.
  - Measures to reduce glomerular hyperfiltration and the impact of proteinuria on the tubulointerstitium, using singly or in combination, renin-angiotensin system (RAS) blockade or dual endothelin angiotensin receptor antagonism (DEARA), and sodium-glucose cotransporter-2 inhibition (SGLT2i), and
  - A thorough cardiovascular risk assessment and commencement of appropriate interventions, as necessary.

**2.3.1 Defining patients with IgAN at risk of progressive loss of kidney function requiring treatment**

**Practice Point 2.3.1.1:** A patient with IgAN is at risk of progressive loss of kidney function if they have proteinuria  $\geq 0.5$  g/d (or equivalent), while on or off treatment for IgAN, and treatment/additional treatment should be started in all cases.

Practice Point 1.3.2 The initial assessment of the patient with IgAN is shown in Figure 2.

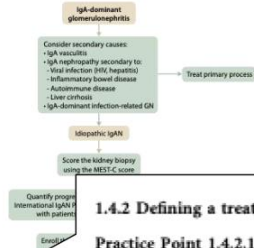


Figure 2 | Initial assessment and management of human immunodeficiency virus, MEST-C, mesangial density (D), and crescent (C).

1.4 Treatment

1.4.1 Defining patients with IgAN at risk of

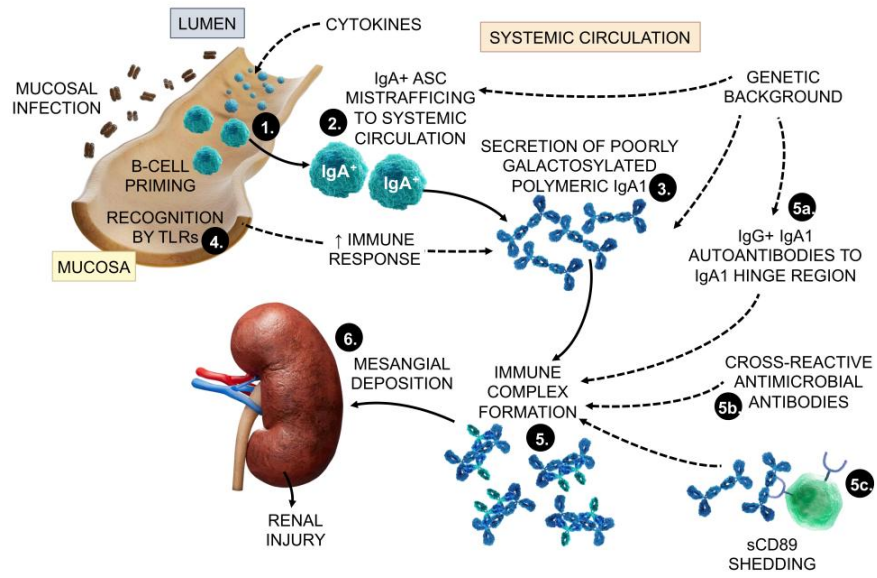
Practice Point 1.4.1.1: Because patients with proteinuria  $\geq 0.5$  g/d, treatment should be

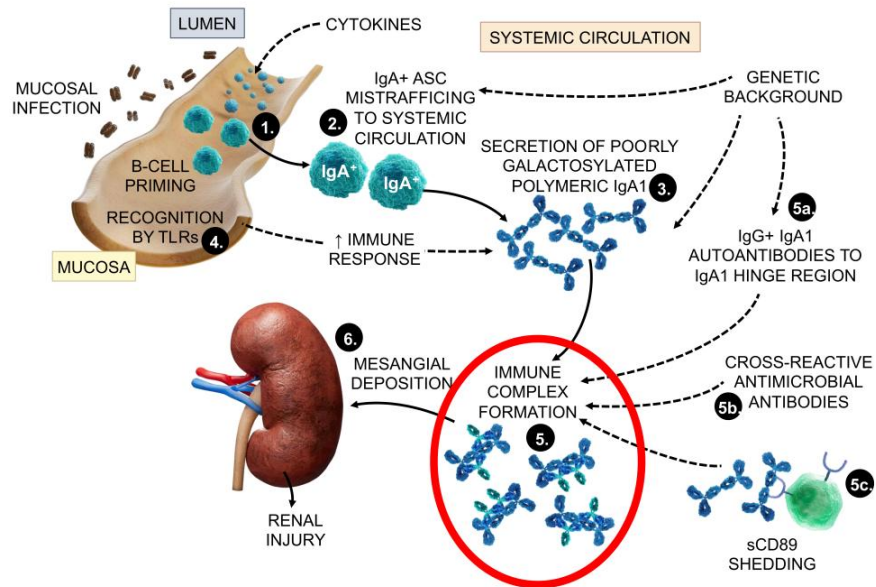
1.4.2 Defining a treatment goal in patients with IgAN at risk of progressive loss of kidney function

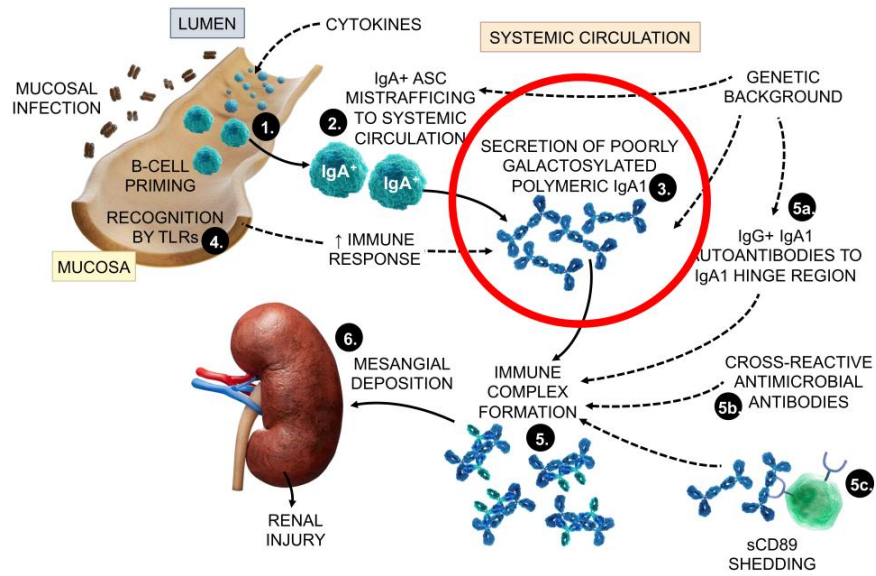
Practice Point 1.4.2.1: The treatment goal in patients with IgAN at risk of progressive loss of kidney function is to reduce the rate of loss of kidney function to the physiological state (i.e.,  $<1$  mL/min/yr for most adults) for the rest of the patient's life. The only validated early biomarker to help guide clinical decision-making is urine protein excretion, which should be maintained at a minimum of  $<0.5$  g/d (or equivalent), and ideally at  $<0.3$  g/d (or equivalent), accepting that in some patients with extensive kidney scarring, this may not be possible and that multiple treatment strategies, including non-pharmacologic interventions, may be needed to achieve this.

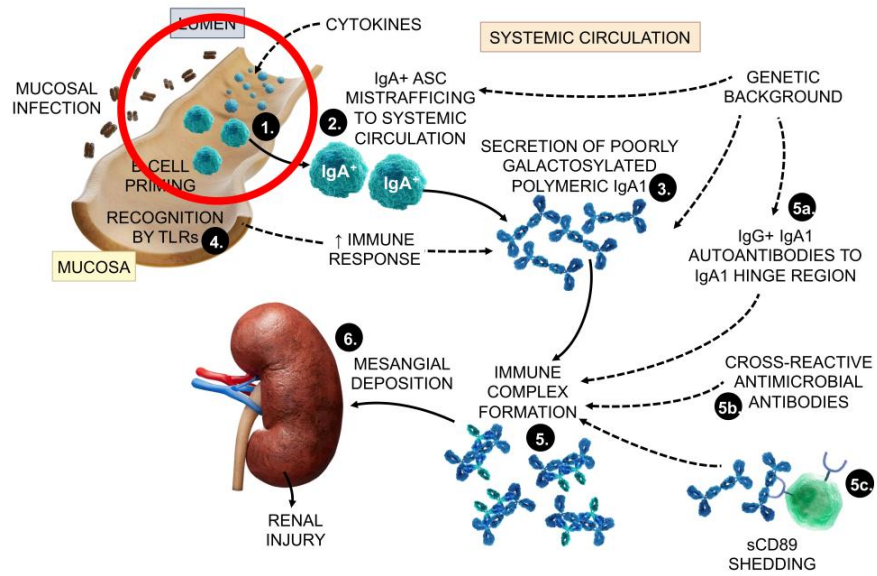
**1.4.2 Defining a treatment goal in patients with IgAN at risk of progressive loss of kidney function**

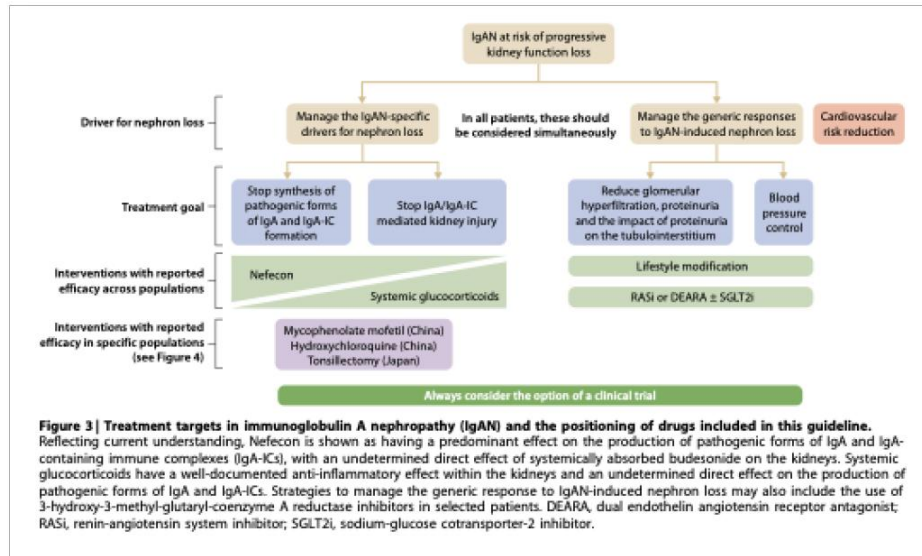
**Practice Point 1.4.2.1:** The treatment goal in patients with IgAN at risk of progressive loss of kidney function is to reduce the rate of loss of kidney function to the physiological state (i.e.,  $<1$  mL/min/yr for most adults) for the rest of the patient's life. The only validated early biomarker to help guide clinical decision-making is urine protein excretion, which should be maintained at a minimum of  $<0.5$  g/d (or equivalent), and ideally at  $<0.3$  g/d (or equivalent), accepting that in some patients with extensive kidney scarring, this may not be possible and that multiple treatment strategies, including non-pharmacologic interventions, may be needed to achieve this.

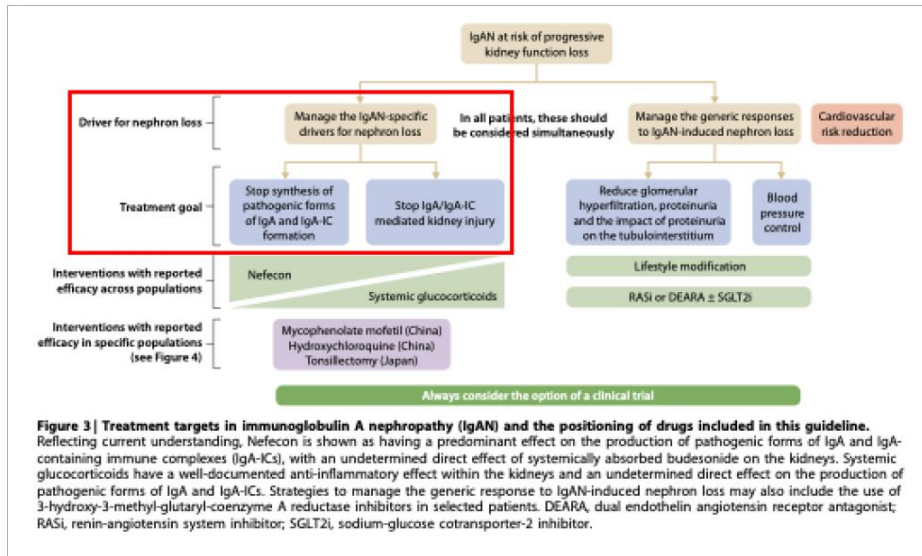


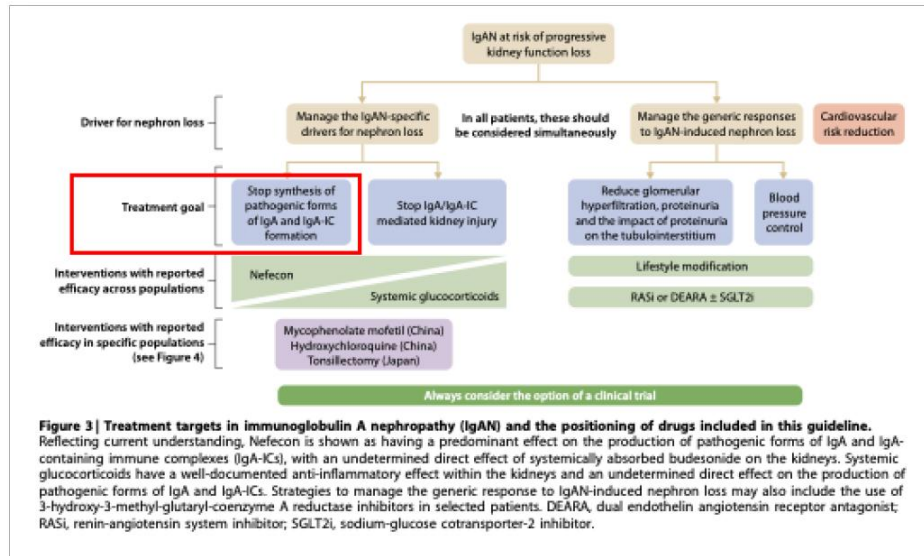


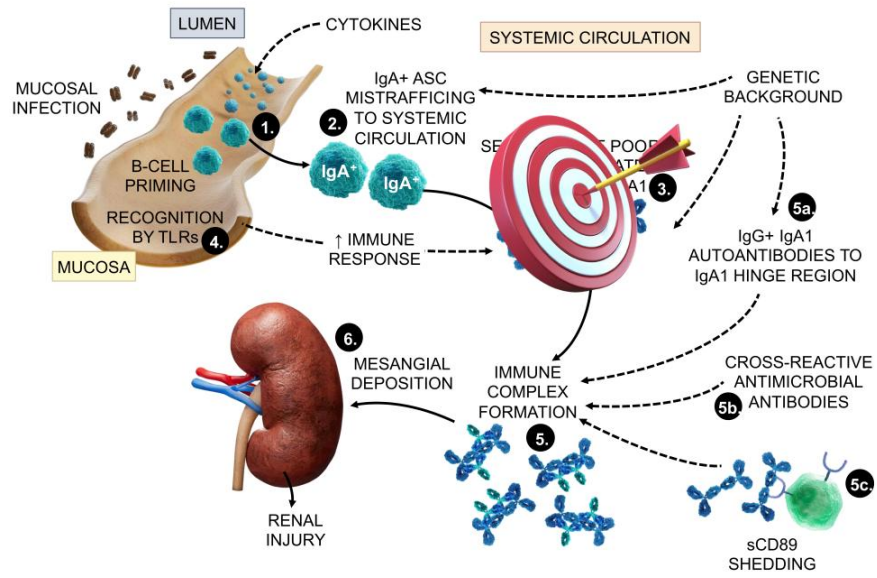


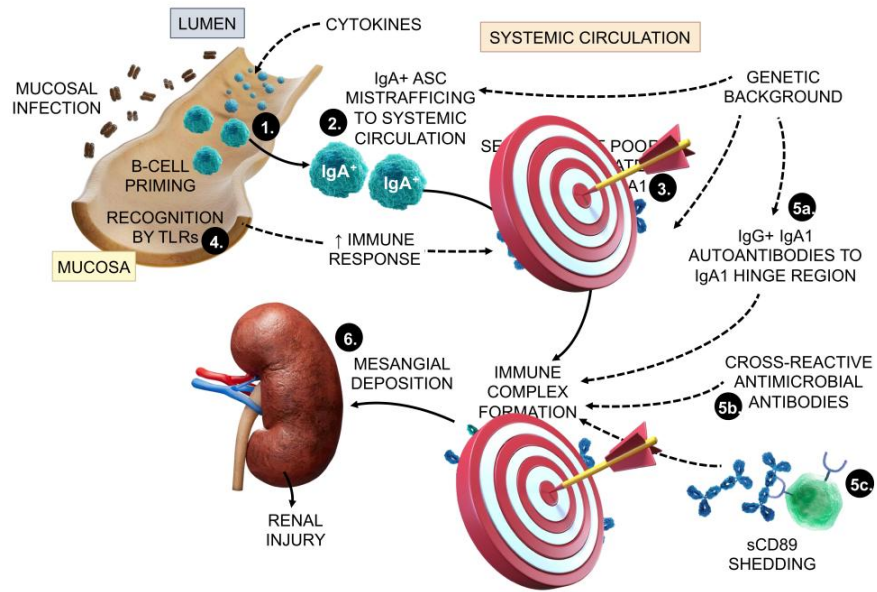


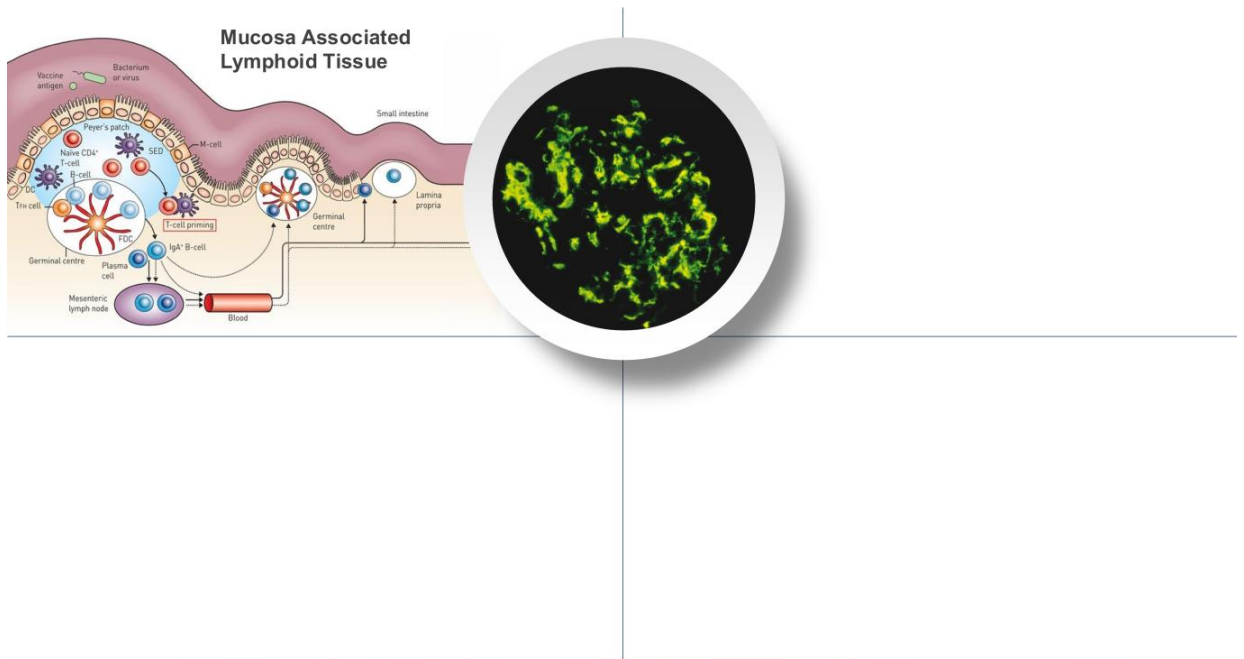




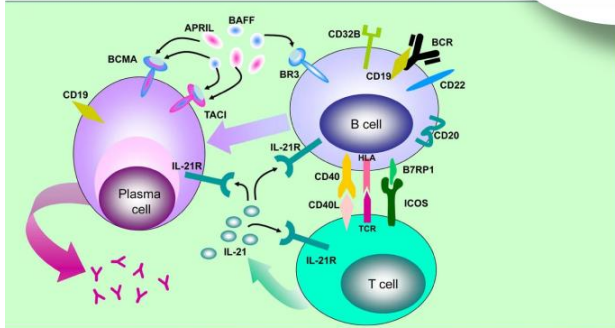
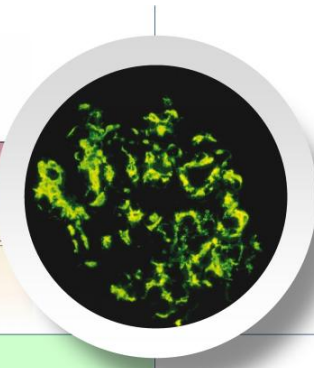
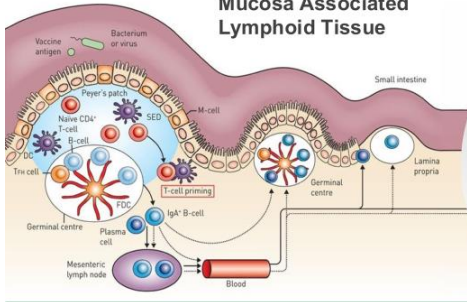




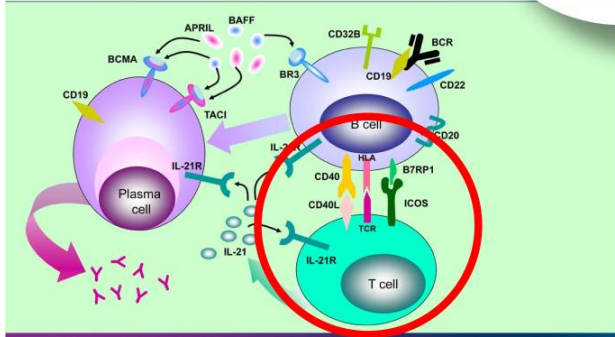
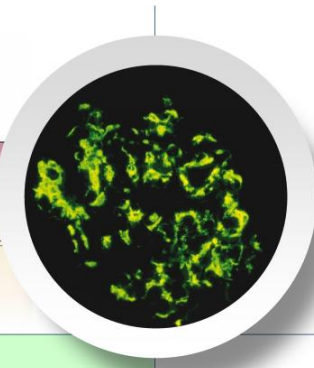
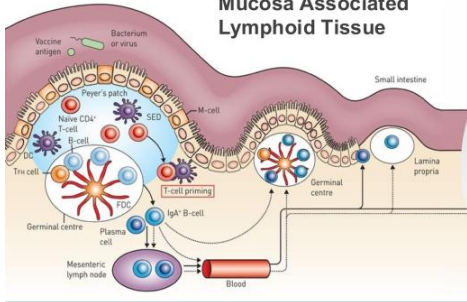




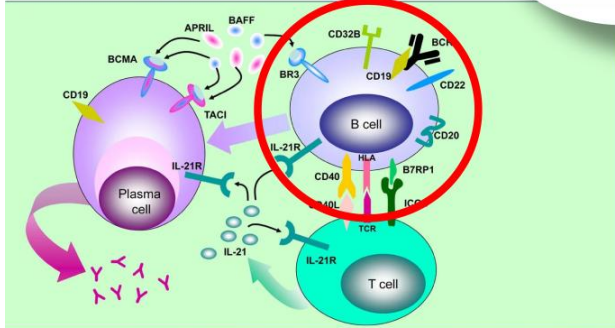
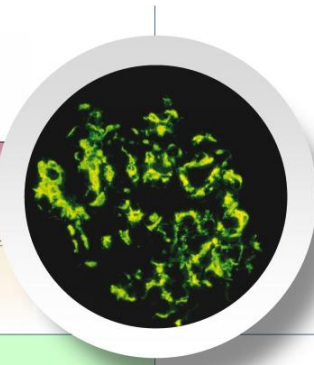
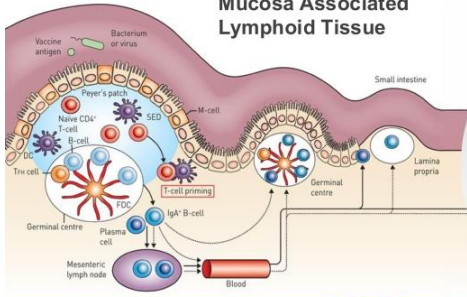
# Mucosa Associated Lymphoid Tissue



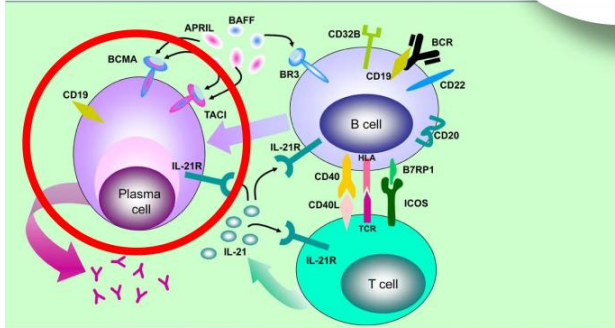
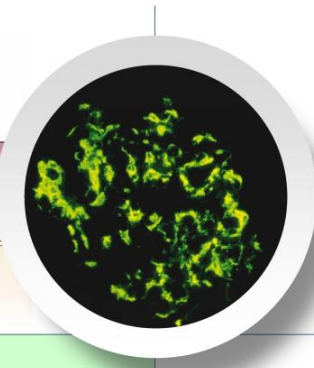
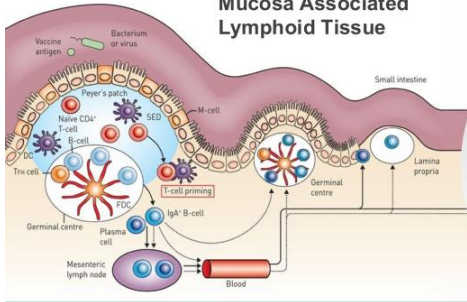
# Mucosa Associated Lymphoid Tissue



# Mucosa Associated Lymphoid Tissue



# Mucosa Associated Lymphoid Tissue









**Articles**

### Efficacy and safety of a targeted-release formulation of budesonide in patients with primary IgA nephropathy (NefGard): 2-year results from a randomised phase 3 trial

**Background** IgA nephropathy is a chronic immune-mediated kidney disease and a major cause of kidney failure worldwide. The putative immune system is implicated in its pathogenesis, and budesonide is a novel, oral, immunosuppressive formulation of budesonide designed to act at the gut mucosal level. We present findings from the 2-year phase 3 NefGard trial of budesonide in patients with IgA nephropathy.

**Methods** In this phase 3, multicentre, randomised, double-blind, placebo-controlled trial, adult patients (age 18–75 years) with primary IgA nephropathy, estimated glomerular filtration rate (eGFR) 15–90 mL/min per 1.73 m<sup>2</sup> and proteinuria greater than 0.5 g per day or proteinuria of 0.3–0.5 g per day despite optimal medical management were randomised at 152 hospitals worldwide. Patients were randomly assigned (1:1) to receive 16 mg/day oral capsules of budesonide or matching placebo for 9 months, followed by a 15-month observational follow-up period of study drug. Randomisation was an interactive response technology system was used to randomise patients to either budesonide or placebo. The primary endpoint was the time to progression to end-stage kidney disease (ESKD), defined as a need for dialysis or kidney transplantation, or death. The primary efficacy endpoint was time to progression to ESKD, defined as a need for dialysis or kidney transplantation, or death. The trial was registered on ClinicalTrials.gov, NCT02519765, and is completed.

**Results** Patients were randomised to the NefGard trial between Sept 5, 2015, and Jan 20, 2017, with 164 patients (82 per treatment group) randomised to receive the study drug. 149 (91%) patients were seen and 124 (76%) were seen and 71 (43%) identified as white. The time-weighted average of eGFR over 2 years showed a statistically significant treatment benefit with budesonide versus placebo (difference 1.95 mL/min per 1.73 m<sup>2</sup> [95% CI 0.33–3.58], *p* = 0.008) with a time-weighted average change of 2.2 mL/min per 1.73 m<sup>2</sup> (95% CI 1.38–3.02) compared with budesonide and -0.22 mL/min per 1.73 m<sup>2</sup> (95% CI -0.88–0.44) compared with placebo. The most commonly reported treatment-emergent adverse events during treatment with budesonide were pyrexia (15 [9%] patients), pharyngitis (10 [6%] patients), hypertension (10 [6%] patients), sinusitis (10 [6%] patients), and headache (10 [6%] patients). No treatment-related deaths were reported.

**Interpretation** A 9-month treatment period with budesonide provided a clinically relevant reduction in eGFR decline and a durable reduction in proteinuria versus placebo, providing support for a disease-modifying effect in patients with IgA nephropathy. Budesonide was also well tolerated, with a safety profile as expected for a locally acting and immunosuppressive glucocorticoid.

**Funding:** Celltech Therapeutics.

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**Introduction** IgA nephropathy is a chronic immune-mediated kidney disease (characterised by IgA deposits) in the glomeruli, high nephropathy is the most common primary glomerular disease globally and has become increasingly common in developed countries, including reduced life expectancy, most patients with IgA nephropathy are asymptomatic during follow-up, with up to 50% dying within 20 years of presentation.<sup>1</sup> Therefore, IgA nephropathy poses a substantial burden on patients and health-care services worldwide. With no case for IgA nephropathy, current kidney disease therapies (including ACE inhibitors, ARBs, diuretics, mineralocorticoid receptor antagonists, and statins) are primarily aimed at slowing disease progression, but do not address the underlying immune-mediated pathogenesis. Immunosuppressive therapies, such as corticosteroids, have been used to treat IgA nephropathy, but their efficacy is limited and their safety profile is poor. Budesonide is a novel, oral, immunosuppressive formulation of budesonide designed to act at the gut mucosal level. We present findings from the 2-year phase 3 NefGard trial of budesonide in patients with IgA nephropathy.

**Articles**

150 (87%) of 82 patients in the budesonide group took at least 80% of the trial regimen. The overall rate of study completion was high and similar to both

**Figure 3** Time to progression to end-stage kidney disease (ESKD) in patients with IgA nephropathy. The figure consists of three Kaplan-Meier plots (A, B, and C) showing the time to progression to ESKD for budesonide (red line) versus placebo (blue line) in patients with IgA nephropathy. Plot A shows the overall results, plot B shows results for patients with proteinuria > 0.5 g/day, and plot C shows results for patients with proteinuria < 0.5 g/day. All plots show a significant benefit for the budesonide group, with a statistically significant difference (p < 0.001) in all cases. The y-axis represents the percentage of patients remaining free of ESKD, and the x-axis represents time in months. The budesonide group consistently shows a higher percentage of patients remaining free of ESKD over the 24-month period compared to the placebo group.

**Articles**

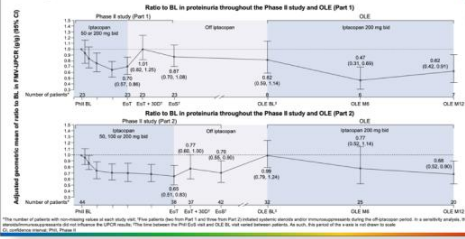
**Figure 4** Time-weighted average of eGFR over 2 years in patients with IgA nephropathy. The graph shows the time-weighted average of eGFR (mL/min per 1.73 m<sup>2</sup>) over 24 months for budesonide (red line) and placebo (blue line) groups. The budesonide group shows a significantly higher eGFR compared to the placebo group, with a statistically significant difference (p < 0.001). The y-axis represents eGFR (mL/min per 1.73 m<sup>2</sup>) and the x-axis represents time in months. The budesonide group consistently shows a higher eGFR over the 24-month period compared to the placebo group.

**Effect of iptacopan discontinuation on proteinuria and complement biomarkers in patients with immunoglobulin A nephropathy (IgAN): a *post hoc* analysis from a Phase II trial**

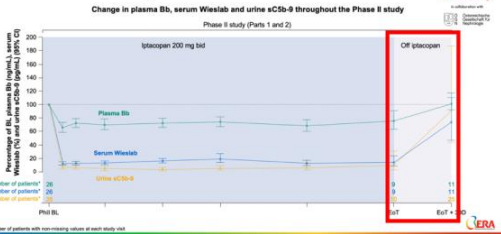
Jonathan Barratt,<sup>1,2</sup> Dana V. Rizk,<sup>3</sup> Hong Zhang,<sup>4</sup> Bart Mees,<sup>5</sup> Naoki Kashihara,<sup>6</sup> Brad Rovin,<sup>7</sup> Hernan Trimarchi,<sup>8</sup> Dmitry Kolins,<sup>9</sup> Manasi Desai,<sup>10</sup> Olympia Papachristou,<sup>11</sup> Evanthia Koukoulis,<sup>12</sup> Vlado Pavlovic<sup>13</sup>

<sup>1</sup>The Meyer IGA Nephropathy Laboratory, University of Leicester, Leicester, UK; <sup>2</sup>The John Walls Renal Unit, Leicester General Hospital, Leicester, UK; <sup>3</sup>University of Alabama at Birmingham, Birmingham, AL, USA; <sup>4</sup>Peking University First Hospital, Beijing, China; <sup>5</sup>AZ Dabo, Roeselare, Belgium; <sup>6</sup>Kiwanada Medical School, Chiyomiya, Japan; <sup>7</sup>The Ohio State University Wexner Medical Center, Columbus, OH, USA; <sup>8</sup>Hospital Británico de Buenos Aires, Buenos Aires, Argentina; <sup>9</sup>Novartis Pharma AG, Basel, Switzerland; <sup>10</sup>University of New South Wales, Sydney, NSW, Australia

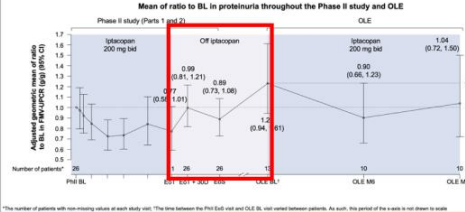
**Proteinuria increased after iptacopan discontinuation, and decreased upon its reinitiation to a similar extent as during initial treatment**



**When iptacopan 200 mg bid was discontinued, there was an increase in AP biomarker activity**



**In the pooled iptacopan 200 mg bid arms, proteinuria decreased with iptacopan treatment, increased following discontinuation, and decreased again upon reinitiation**



RESEARCH SUMMARY

**A Phase 2 Trial of Sibeprelimab in Patients with IgA Nephropathy**

Mathur M et al. DOI: 10.1056/NEJMoa2305833

**CLINICAL PROBLEM**

Among patients with IgA nephropathy, kidney failure develops in 20% within 20 to 30 years, despite the receipt of optimized standard care. A critical step in the pathogenesis of IgA nephropathy is the production of galactose-deficient IgA1 and resulting autoantibody release. Sibeprelimab is a humanized IgG1 monoclonal antibody that binds to and neutralizes a proliferation-inducing ligand (APRIL), a member of the tumor necrosis factor  $\alpha$  superfamily that regulates IgA production.

**CLINICAL TRIAL**

**Design:** A phase 2, multicenter, double-blind, randomized, placebo-controlled, multiple-dose trial examined the efficacy and safety of sibeprelimab in adults with IgA nephropathy at high risk for disease progression.

**Interventions:** 155 patients were assigned to receive intravenous sibeprelimab at a dose of 2, 4, or 8 mg per kilogram of body weight or placebo once monthly for 12 months. The primary end point was the change from baseline to month 12 in the log-transformed 24-hour urinary protein-to-creatinine ratio.

**RESULTS**

**Efficacy:** The 24-hour urinary protein-to-creatinine ratio decreased significantly more in the sibeprelimab groups than in the placebo group. The decreases in the sibeprelimab groups were dose-dependent.

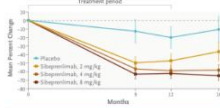
**Safety:** The incidence of adverse events, including serious adverse events, was similar in the sibeprelimab groups and the placebo group.

**LIMITATIONS AND REMAINING QUESTIONS**

- Evidence of a return to baseline levels of APRIL in the 4 months after discontinuation of sibeprelimab suggests that ongoing treatment will be needed.
- A phase 3 trial has been started to confirm these results in a larger patient population.

Links: Full Article | NEJM Quick Take | Editorial

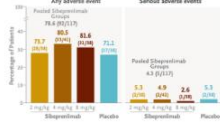
**Change in 24-Hr Urinary Protein-to-Creatinine Ratio**



**Geometric Mean Percent Reduction in 24-Hr Urinary Protein-to-Creatinine Ratio**

End Point	Sibeprelimab 2 mg/kg (n=46)	Sibeprelimab 4 mg/kg (n=47)	Sibeprelimab 8 mg/kg (n=62)	Placebo (n=46)
Month 9	49.6(7.7)	37.8(5.2)	42.8(5.5)	12.7(13.4)
Month 12	47.3(8.2)	38.8(6.1)	48.8(6.7)	20.8(12.4)
Month 18	36.5(12.8)	38.5(6.6)	35.8(5.7)	10.8(13.0)

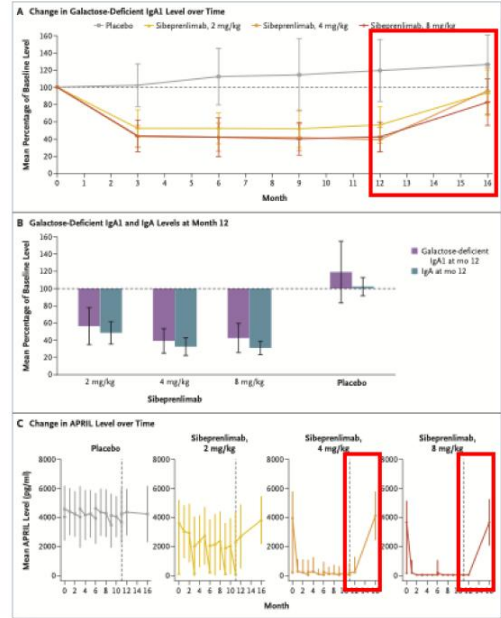
**Adverse Events**



**CONCLUSIONS**

Among patients with IgA nephropathy at high risk for disease progression, 12 months of treatment with sibeprelimab resulted in a significantly greater reduction in proteinuria than placebo.

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OPEN

### Long-Term Results from an Open-Label Extension Study of Ataccept for the Treatment of IgA Nephropathy

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Alkhatib<sup>8</sup>,<sup>9</sup>,<sup>10</sup>,<sup>11</sup>,<sup>12</sup>,<sup>13</sup>,<sup>14</sup>,<sup>15</sup>,<sup>16</sup>,<sup>17</sup>,<sup>18</sup>,<sup>19</sup>,<sup>20</sup>,<sup>21</sup>,<sup>22</sup>,<sup>23</sup>,<sup>24</sup>,<sup>25</sup>,<sup>26</sup>,<sup>27</sup>,<sup>28</sup>,<sup>29</sup>,<sup>30</sup>,<sup>31</sup>,<sup>32</sup>,<sup>33</sup>,<sup>34</sup>,<sup>35</sup>,<sup>36</sup>,<sup>37</sup>,<sup>38</sup>,<sup>39</sup>,<sup>40</sup>,<sup>41</sup>,<sup>42</sup>,<sup>43</sup>,<sup>44</sup>,<sup>45</sup>,<sup>46</sup>,<sup>47</sup>,<sup>48</sup>,<sup>49</sup>,<sup>50</sup>,<sup>51</sup>,<sup>52</sup>,<sup>53</sup>,<sup>54</sup>,<sup>55</sup>,<sup>56</sup>,<sup>57</sup>,<sup>58</sup>,<sup>59</sup>,<sup>60</sup>,<sup>61</sup>,<sup>62</sup>,<sup>63</sup>,<sup>64</sup>,<sup>65</sup>,<sup>66</sup>,<sup>67</sup>,<sup>68</sup>,<sup>69</sup>,<sup>70</sup>,<sup>71</sup>,<sup>72</sup>,<sup>73</sup>,<sup>74</sup>,<sup>75</sup>,<sup>76</sup>,<sup>77</sup>,<sup>78</sup>,<sup>79</sup>,<sup>80</sup>,<sup>81</sup>,<sup>82</sup>,<sup>83</sup>,<sup>84</sup>,<sup>85</sup>,<sup>86</sup>,<sup>87</sup>,<sup>88</sup>,<sup>89</sup>,<sup>90</sup>,<sup>91</sup>,<sup>92</sup>,<sup>93</sup>,<sup>94</sup>,<sup>95</sup>,<sup>96</sup>,<sup>97</sup>,<sup>98</sup>,<sup>99</sup>,<sup>100</sup>,<sup>101</sup>,<sup>102</sup>,<sup>103</sup>,<sup>104</sup>,<sup>105</sup>,<sup>106</sup>,<sup>107</sup>,<sup>108</sup>,<sup>109</sup>,<sup>110</sup>,<sup>111</sup>,<sup>112</sup>,<sup>113</sup>,<sup>114</sup>,<sup>115</sup>,<sup>116</sup>,<sup>117</sup>,<sup>118</sup>,<sup>119</sup>,<sup>120</sup>,<sup>121</sup>,<sup>122</sup>,<sup>123</sup>,<sup>124</sup>,<sup>125</sup>,<sup>126</sup>,<sup>127</sup>,<sup>128</sup>,<sup>129</sup>,<sup>130</sup>,<sup>131</sup>,<sup>132</sup>,<sup>133</sup>,<sup>134</sup>,<sup>135</sup>,<sup>136</sup>,<sup>137</sup>,<sup>138</sup>,<sup>139</sup>,<sup>140</sup>,<sup>141</sup>,<sup>142</sup>,<sup>143</sup>,<sup>144</sup>,<sup>145</sup>,<sup>146</sup>,<sup>147</sup>,<sup>148</sup>,<sup>149</sup>,<sup>150</sup>,<sup>151</sup>,<sup>152</sup>,<sup>153</sup>,<sup>154</sup>,<sup>155</sup>,<sup>156</sup>,<sup>157</sup>,<sup>158</sup>,<sup>159</sup>,<sup>160</sup>,<sup>161</sup>,<sup>162</sup>,<sup>163</sup>,<sup>164</sup>,<sup>165</sup>,<sup>166</sup>,<sup>167</sup>,<sup>168</sup>,<sup>169</sup>,<sup>170</sup>,<sup>171</sup>,<sup>172</sup>,<sup>173</sup>,<sup>174</sup>,<sup>175</sup>,<sup>176</sup>,<sup>177</sup>,<sup>178</sup>,<sup>179</sup>,<sup>180</sup>,<sup>181</sup>,<sup>182</sup>,<sup>183</sup>,<sup>184</sup>,<sup>185</sup>,<sup>186</sup>,<sup>187</sup>,<sup>188</sup>,<sup>189</sup>,<sup>190</sup>,<sup>191</sup>,<sup>192</sup>,<sup>193</sup>,<sup>194</sup>,<sup>195</sup>,<sup>196</sup>,<sup>197</sup>,<sup>198</sup>,<sup>199</sup>,<sup>200</sup>,<sup>201</sup>,<sup>202</sup>,<sup>203</sup>,<sup>204</sup>,<sup>205</sup>,<sup>206</sup>,<sup>207</sup>,<sup>208</sup>,<sup>209</sup>,<sup>210</sup>,<sup>211</sup>,<sup>212</sup>,<sup>213</sup>,<sup>214</sup>,<sup>215</sup>,<sup>216</sup>,<sup>217</sup>,<sup>218</sup>,<sup>219</sup>,<sup>220</sup>,<sup>221</sup>,<sup>222</sup>,<sup>223</sup>,<sup>224</sup>,<sup>225</sup>,<sup>226</sup>,<sup>227</sup>,<sup>228</sup>,<sup>229</sup>,<sup>230</sup>,<sup>231</sup>,<sup>232</sup>,<sup>233</sup>,<sup>234</sup>,<sup>235</sup>,<sup>236</sup>,<sup>237</sup>,<sup>238</sup>,<sup>239</sup>,<sup>240</sup>,<sup>241</sup>,<sup>242</sup>,<sup>243</sup>,<sup>244</sup>,<sup>245</sup>,<sup>246</sup>,<sup>247</sup>,<sup>248</sup>,<sup>249</sup>,<sup>250</sup>,<sup>251</sup>,<sup>252</sup>,<sup>253</sup>,<sup>254</sup>,<sup>255</sup>,<sup>256</sup>,<sup>257</sup>,<sup>258</sup>,<sup>259</sup>,<sup>260</sup>,<sup>261</sup>,<sup>262</sup>,<sup>263</sup>,<sup>264</sup>,<sup>265</sup>,<sup>266</sup>,<sup>267</sup>,<sup>268</sup>,<sup>269</sup>,<sup>270</sup>,<sup>271</sup>,<sup>272</sup>,<sup>273</sup>,<sup>274</sup>,<sup>275</sup>,<sup>276</sup>,<sup>277</sup>,<sup>278</sup>,<sup>279</sup>,<sup>280</sup>,<sup>281</sup>,<sup>282</sup>,<sup>283</sup>,<sup>284</sup>,<sup>285</sup>,<sup>286</sup>,<sup>287</sup>,<sup>288</sup>,<sup>289</sup>,<sup>290</sup>,<sup>291</sup>,<sup>292</sup>,<sup>293</sup>,<sup>294</sup>,<sup>295</sup>,<sup>296</sup>,<sup>297</sup>,<sup>298</sup>,<sup>299</sup>,<sup>300</sup>,<sup>301</sup>,<sup>302</sup>,<sup>303</sup>,<sup>304</sup>,<sup>305</sup>,<sup>306</sup>,<sup>307</sup>,<sup>308</sup>,<sup>309</sup>,<sup>310</sup>,<sup>311</sup>,<sup>312</sup>,<sup>313</sup>,<sup>314</sup>,<sup>315</sup>,<sup>316</sup>,<sup>317</sup>,<sup>318</sup>,<sup>319</sup>,<sup>320</sup>,<sup>321</sup>,<sup>322</sup>,<sup>323</sup>,<sup>324</sup>,<sup>325</sup>,<sup>326</sup>,<sup>327</sup>,<sup>328</sup>,<sup>329</sup>,<sup>330</sup>,<sup>331</sup>,<sup>332</sup>,<sup>333</sup>,<sup>334</sup>,<sup>335</sup>,<sup>336</sup>,<sup>337</sup>,<sup>338</sup>,<sup>339</sup>,<sup>340</sup>,<sup>341</sup>,<sup>342</sup>,<sup>343</sup>,<sup>344</sup>,<sup>345</sup>,<sup>346</sup>,<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80</sup>,<sup>681</sup>,<sup>682</sup>,<sup>683</sup>,<sup>684</sup>,<sup>685</sup>,<sup>686</sup>,<sup>687</sup>,<sup>688</sup>,<sup>689</sup>,<sup>690</sup>,<sup>691</sup>,<sup>692</sup>,<sup>693</sup>,<sup>694</sup>,<sup>695</sup>,<sup>696</sup>,<sup>697</sup>,<sup>698</sup>,<sup>699</sup>,<sup>700</sup>,<sup>701</sup>,<sup>702</sup>,<sup>703</sup>,<sup>704</sup>,<sup>705</sup>,<sup>706</sup>,<sup>707</sup>,<sup>708</sup>,<sup>709</sup>,<sup>710</sup>,<sup>711</sup>,<sup>712</sup>,<sup>713</sup>,<sup>714</sup>,<sup>715</sup>,<sup>716</sup>,<sup>717</sup>,<sup>718</sup>,<sup>719</sup>,<sup>720</sup>,<sup>721</sup>,<sup>722</sup>,<sup>723</sup>,<sup>724</sup>,<sup>725</sup>,<sup>726</sup>,<sup>727</sup>,<sup>728</sup>,<sup>729</sup>,<sup>730</sup>,<sup>731</sup>,<sup>732</sup>,<sup>733</sup>,<sup>734</sup>,<sup>735</sup>,<sup>736</sup>,<sup>737</sup>,<sup>738</sup>,<sup>739</sup>,<sup>740</sup>,<sup>741</sup>,<sup>742</sup>,<sup>743</sup>,<sup>744</sup>,<sup>745</sup>,<sup>746</sup>,<sup>747</sup>,<sup>748</sup>,<sup>749</sup>,<sup>750</sup>,<sup>751</sup>,<sup>752</sup>,<sup>753</sup>,<sup>754</sup>,<sup>755</sup>,<sup>756</sup>,<sup>757</sup>,<sup>758</sup>,<sup>759</sup>,<sup>760</sup>,<sup>761</sup>,<sup>762</sup>,<sup>763</sup>,<sup>764</sup>,<sup>765</sup>,<sup>766</sup>,<sup>767</sup>,<sup>768</sup>,<sup>769</sup>,<sup>770</sup>,<sup>771</sup>,<sup>772</sup>,<sup>773</sup>,<sup>774</sup>,<sup>775</sup>,<sup>776</sup>,<sup>777</sup>,<sup>778</sup>,<sup>779</sup>,<sup>780</sup>,<sup>781</sup>,<sup>782</sup>,<sup>783</sup>,<sup>784</sup>,<sup>785</sup>,<sup>786</sup>,<sup>787</sup>,<sup>788</sup>,<sup>789</sup>,<sup>790</sup>,<sup>791</sup>,<sup>792</sup>,<sup>793</sup>,<sup>794</sup>,<sup>795</sup>,<sup>796</sup>,<sup>797</sup>,<sup>798</sup>,<sup>799</sup>,<sup>800</sup>,<sup>801</sup>,<sup>802</sup>,<sup>803</sup>,<sup>804</sup>,<sup>805</sup>,<sup>806</sup>,<sup>807</sup>,<sup>808</sup>,<sup>809</sup>,<sup>810</sup>,<sup>811</sup>,<sup>812</sup>,<sup>813</sup>,<sup>814</sup>,<sup>815</sup>,<sup>816</sup>,<sup>817</sup>,<sup>818</sup>,<sup>819</sup>,<sup>820</sup>,<sup>821</sup>,<sup>822</sup>,<sup>823</sup>,<sup>824</sup>,<sup>825</sup>,<sup>826</sup>,<sup>827</sup>,<sup>828</sup>,<sup>829</sup>,<sup>830</sup>,<sup>831</sup>,<sup>832</sup>,<sup>833</sup>,<sup>834</sup>,<sup>835</sup>,<sup>836</sup>,<sup>837</sup>,<sup>838</sup>,<sup>839</sup>,<sup>840</sup>,<sup>841</sup>,<sup>842</sup>,<sup>843</sup>,<sup>844</sup>,<sup>845</sup>,<sup>846</sup>,<sup>847</sup>,<sup>848</sup>,<sup>849</sup>,<sup>850</sup>,<sup>851</sup>,<sup>852</sup>,<sup>853</sup>,<sup>854</sup>,<sup>855</sup>,<sup>856</sup>,<sup>857</sup>,<sup>858</sup>,<sup>859</sup>,<sup>860</sup>,<sup>861</sup>,<sup>862</sup>,<sup>863</sup>,<sup>864</sup>,<sup>865</sup>,<sup>866</sup>,<sup>867</sup>,<sup>868</sup>,<sup>869</sup>,<sup>870</sup>,<sup>871</sup>,<sup>872</sup>,<sup>873</sup>,<sup>874</sup>,<sup>875</sup>,<sup>876</sup>,<sup>877</sup>,<sup>878</sup>,<sup>879</sup>,<sup>880</sup>,<sup>881</sup>,<sup>882</sup>,<sup>883</sup>,<sup>884</sup>,<sup>885</sup>,<sup>886</sup>,<sup>887</sup>,<sup>888</sup>,<sup>889</sup>,<sup>890</sup>,<sup>891</sup>,<sup>892</sup>,<sup>893</sup>,<sup>894</sup>,<sup>895</sup>,<sup>896</sup>,<sup>897</sup>,<sup>898</sup>,<sup>899</sup>,<sup>900</sup>,<sup>901</sup>,<sup>902</sup>,<sup>903</sup>,<sup>904</sup>,<sup>905</sup>,<sup>906</sup>,<sup>907</sup>,<sup>908</sup>,<sup>909</sup>,<sup>910</sup>,<sup>911</sup>,<sup>912</sup>,<sup>913</sup>,<sup>914</sup>,<sup>915</sup>,<sup>916</sup>,<sup>917</sup>,<sup>918</sup>,<sup>919</sup>,<sup>920</sup>,<sup>921</sup>,<sup>922</sup>,<sup>923</sup>,<sup>924</sup>,<sup>925</sup>,<sup>926</sup>,<sup>927</sup>,<sup>928</sup>,<sup>929</sup>,<sup>930</sup>,<sup>931</sup>,<sup>932</sup>,<sup>933</sup>,<sup>934</sup>,<sup>935</sup>,<sup>936</sup>,<sup>937</sup>,<sup>938</sup>,<sup>939</sup>,<sup>940</sup>,<sup>941</sup>,<sup>942</sup>,<sup>943</sup>,<sup>944</sup>,<sup>945</sup>,<sup>946</sup>,<sup>947</sup>,<sup>948</sup>,<sup>949</sup>,<sup>950</sup>,<sup>951</sup>,<sup>952</sup>,<sup>953</sup>,<sup>954</sup>,<sup>955</sup>,<sup>956</sup>,<sup>957</sup>,<sup>958</sup>,<sup>959</sup>,<sup>960</sup>,<sup>961</sup>,<sup>962</sup>,<sup>963</sup>,<sup>964</sup>,<sup>965</sup>,<sup>966</sup>,<sup>967</sup>,<sup>968</sup>,<sup>969</sup>,<sup>970</sup>,<sup>971</sup>,<sup>972</sup>,<sup>973</sup>,<sup>974</sup>,<sup>975</sup>,<sup>976</sup>,<sup>977</sup>,<sup>978</sup>,<sup>979</sup>,<sup>980</sup>,<sup>981</sup>,<sup>982</sup>,<sup>983</sup>,<sup>984</sup>,<sup>985</sup>,<sup>986</sup>,<sup>987</sup>,<sup>988</sup>,<sup>989</sup>,<sup>990</sup>,<sup>991</sup>,<sup>992</sup>,<sup>993</sup>,<sup>994</sup>,<sup>995</sup>,<sup>996</sup>,<sup>997</sup>,<sup>998</sup>,<sup>999</sup>,<sup>1000</sup>

**Key Points:**

- Participants who completed a 36-week double-blind study of ataccept were eligible for a 60-week, open-label extension study.
- Ataccept 96-week treatment resulted in sustained reductions in glomerular-deficient IgA1, hematuria, and urine protein-creatinine ratio.
- The slope of the eGFR was similar to that observed in the general population without kidney disease.

**Abstract**  
**Background:** B cell-activating factor (BAFF) and A proliferation-inducing ligand (APRIL) play key roles in the pathogenesis of IgA nephropathy. Ataccept is a novel fully humanized fusion protein, self-administered at home by subcutaneous injection, that binds and inhibits BAFF and APRIL. By inhibiting BAFF and APRIL, ataccept targets the underlying B-cell-mediated pathogenesis driving disease progression. This study evaluated the long-term efficacy and safety of ataccept in patients with IgA nephropathy over 96 weeks.

**Methods:** Participants with IgA nephropathy who received ataccept (25, 75, or 150 mg) or placebo in a 36-week phase 2b, randomized, blinded trial were enrolled in an open-label extension study and received ataccept 150 mg for an additional 60 weeks. Key efficacy outcomes were changes in glomerular-deficient IgA1 (Gd-IgA1), percentage of participants with hematuria, urine protein-creatinine ratio (UPCR), and eGFR over 96 weeks. Long-term safety data were also evaluated.

**Results:** There were 113 participants (67 [59%] male, 46 [41%] female) who ranged in age from 18 to 67 years who received ≥1 ataccept dose. Over 96 weeks, safety data demonstrated that ataccept was generally well tolerated. There were also sustained reductions (mean ± SEM) in Gd-IgA1 (−60.2 ± 2%), percentage of participants with hematuria (−79%; 95% confidence interval, −67 to −91) in participants with baseline hematuria, and UPCR (−32.6 ± 3%). The mean annualized slope of eGFR was −0.6 ± 0.5 ml/min per 1.73 m<sup>2</sup> through 96 weeks.

**Conclusions:** Ataccept was well tolerated over the duration of the study. Ataccept treatment reduced Gd-IgA1, hematuria, and UPCR with stabilization of eGFR through 96 weeks.

**Clinical trial registry name and registration number:** Ataccept in Subjects with IgA Nephropathy (ORIGIN 2), NCT04762321.  
 JASN 00: 1-8, 2024. doi: <https://doi.org/10.1681/ASN.2023030451>

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**Introduction** IgA nephropathy predominantly diagnosed in young adults, represents a critical challenge in nephrology because of its progressive nature and significant effect on life expectancy and quality.<sup>1-3</sup> At least 50% of patients with IgA nephropathy develop kidney failure within 10-20 years of initial diagnosis.<sup>4-6</sup> Although currently available therapies provide benefits, they fail to stop an underlying decline in kidney function.<sup>7-10</sup> Unless the rate of eGFR decline can be maintained, most patients are likely to experience kidney

failure. This study evaluated the long-term efficacy and safety of ataccept in patients with IgA nephropathy over 96 weeks.

**Methods** Participants with IgA nephropathy who received ataccept (25, 75, or 150 mg) or placebo in a 36-week phase 2b, randomized, blinded trial were enrolled in an open-label extension study and received ataccept 150 mg for an additional 60 weeks. Key efficacy outcomes were changes in glomerular-deficient IgA1 (Gd-IgA1), percentage of participants with hematuria, urine protein-creatinine ratio (UPCR), and eGFR over 96 weeks. Long-term safety data were also evaluated.

**Results** There were 113 participants (67 [59%] male, 46 [41%] female) who ranged in age from 18 to 67 years who received ≥1 ataccept dose. Over 96 weeks, safety data demonstrated that ataccept was generally well tolerated. There were also sustained reductions (mean ± SEM) in Gd-IgA1 (−60.2 ± 2%), percentage of participants with hematuria (−79%; 95% confidence interval, −67 to −91) in participants with baseline hematuria, and UPCR (−32.6 ± 3%). The mean annualized slope of eGFR was −0.6 ± 0.5 ml/min per 1.73 m<sup>2</sup> through 96 weeks.

**Conclusions** Ataccept was well tolerated over the duration of the study. Ataccept treatment reduced Gd-IgA1, hematuria, and UPCR with stabilization of eGFR through 96 weeks.

**Clinical trial registry name and registration number:** Ataccept in Subjects with IgA Nephropathy (ORIGIN 2), NCT04762321.  
 JASN 00: 1-8, 2024. doi: <https://doi.org/10.1681/ASN.2023030451>

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**Introduction** IgA nephropathy predominantly diagnosed in young adults, represents a critical challenge in nephrology because of its progressive nature and significant effect on life expectancy and quality.<sup>1-3</sup> At least 50% of patients with IgA nephropathy develop kidney failure within 10-20 years of initial diagnosis.<sup>4-6</sup> Although currently available therapies provide benefits, they fail to stop an underlying decline in kidney function.<sup>7-10</sup> Unless the rate of eGFR decline can be maintained, most patients are likely to experience kidney

failure. This study evaluated the long-term efficacy and safety of ataccept in patients with IgA nephropathy over 96 weeks.

**Methods** Participants with IgA nephropathy who received ataccept (25, 75, or 150 mg) or placebo in a 36-week phase 2b, randomized, blinded trial were enrolled in an open-label extension study and received ataccept 150 mg for an additional 60 weeks. Key efficacy outcomes were changes in glomerular-deficient IgA1 (Gd-IgA1), percentage of participants with hematuria, urine protein-creatinine ratio (UPCR), and eGFR over 96 weeks. Long-term safety data were also evaluated.

**Results** There were 113 participants (67 [59%] male, 46 [41%] female) who ranged in age from 18 to 67 years who received ≥1 ataccept dose. Over 96 weeks, safety data demonstrated that ataccept was generally well tolerated. There were also sustained reductions (mean ± SEM) in Gd-IgA1 (−60.2 ± 2%), percentage of participants with hematuria (−79%; 95% confidence interval, −67 to −91) in participants with baseline hematuria, and UPCR (−32.6 ± 3%). The mean annualized slope of eGFR was −0.6 ± 0.5 ml/min per 1.73 m<sup>2</sup> through 96 weeks.

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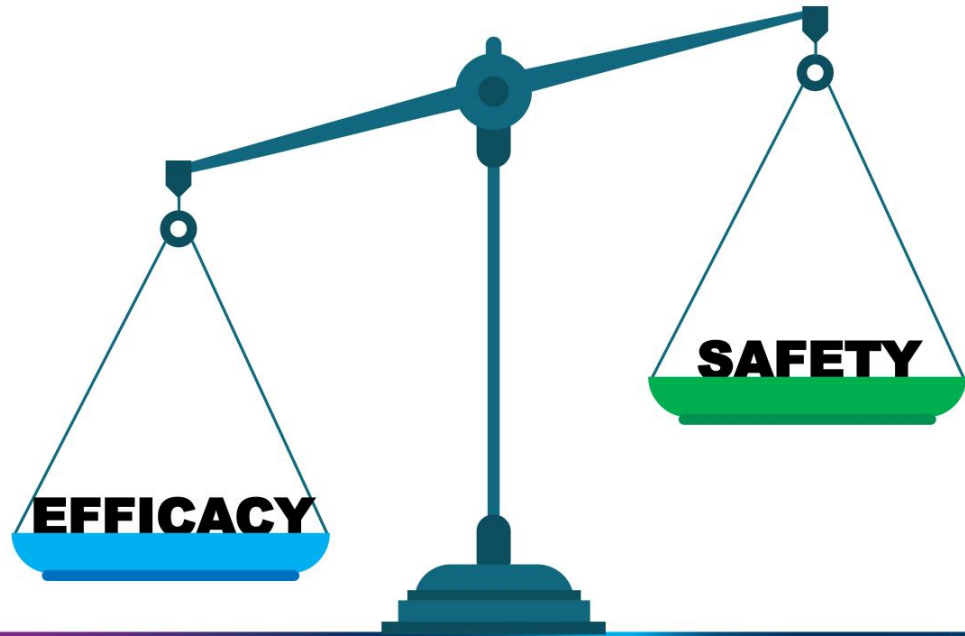
**Clinical trial registry name and registration number:** Ataccept in Subjects with IgA Nephropathy (ORIGIN 2), NCT04762321.  
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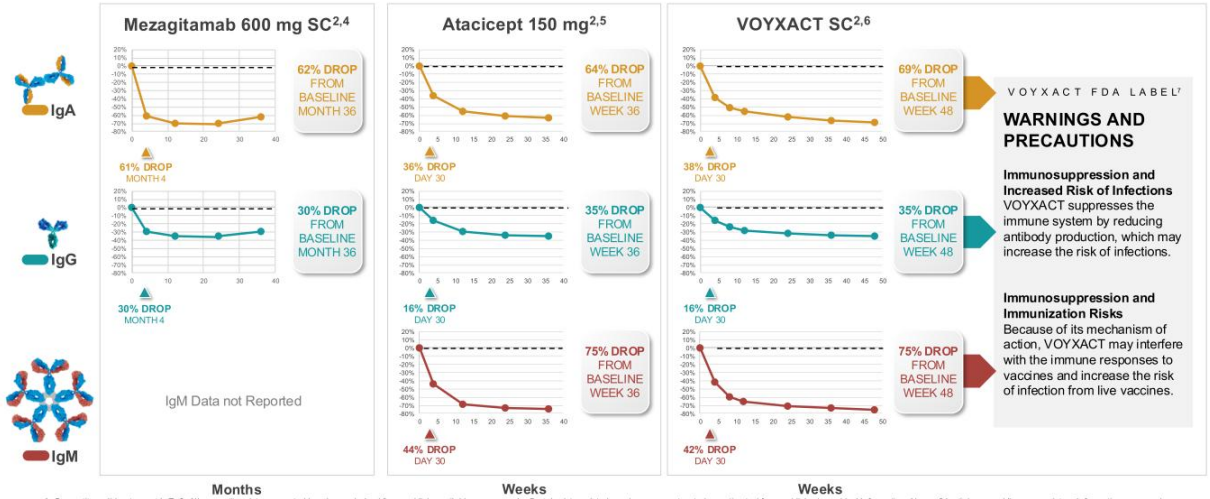
**Introduction** IgA nephropathy predominantly diagnosed in young adults, represents a critical challenge in nephrology because of its progressive nature and significant effect on life expectancy and quality.<sup>1-3</sup> At least 50% of patients with IgA nephropathy develop kidney failure within 10-20 years of initial diagnosis.<sup>4-6</sup> Although currently available therapies provide benefits, they fail to stop an underlying decline in kidney function.<sup>7-10</sup> Unless the rate of eGFR decline can be maintained, most patients are likely to experience kidney

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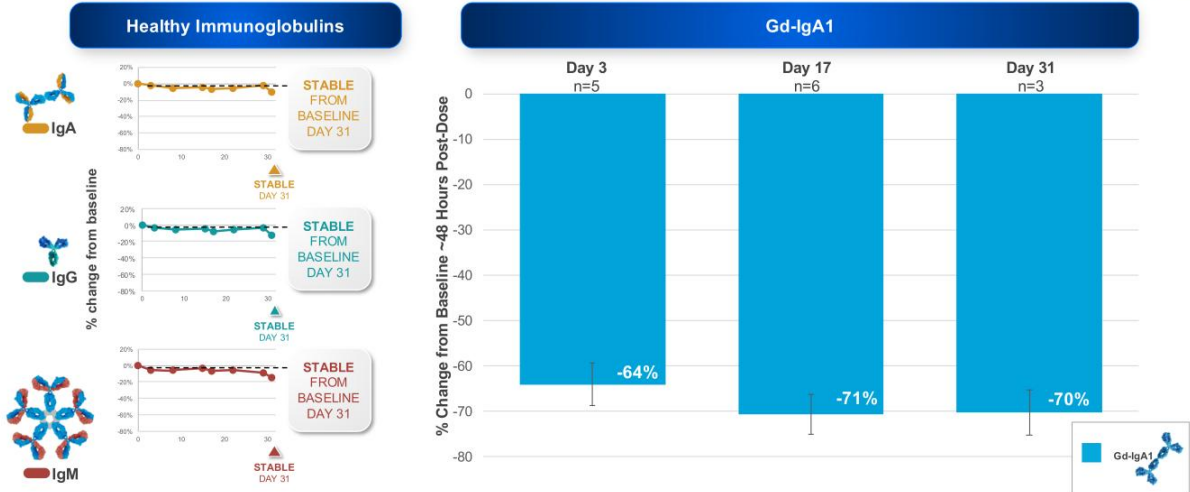
# Competitors Show Long-Term Immunosuppression<sup>1,2</sup>



1. Competitors did not report IgE. 2. All competitor data presented herein are derived from publicly available sources only. Certain data points have been reconstructed or estimated from published graphical information. No confidential, non-public, or proprietary information was used. This analysis has not been reviewed or validated by the referenced companies. 3. Solid dots represent the mean of the maximal total IgG % change from baseline. 4. Baratt. American Society of Nephrology Kidney Week 2023. Poster FRPO0808. 5. Lafayette. Kidney International. 2024. 6. Lafayette. NEJM. 2025. 7. [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2025/761434s0001b.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2025/761434s0001b.pdf)

# BHV-1400 500 mg SC Bi-Monthly Deeply and Selectively Removes Gd-IgA1 Without Suppression of Normal Healthy IgA in Patients With IgAN

DEGRADERS

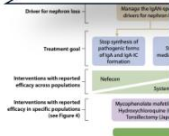


Preliminary data from ongoing study. Data represents mean % change in immunoglobulins in patients with IgAN administered one month of BHV-1400 500 mg every two weeks. Error bars represent standard error.

- Practice Point 1.4.2.2:** Treatment of patients with IgAN who are at risk of progressive loss of kidney function and do not have a variant form (variants 1-3) of primary IgAN (Figure 3):
- The focus of management in most patients should be to **immunosuppress**:
  - Prevent or reduce immunoglobulin A-containing immune complex (IgA-IC) formation and IgA-IC-mediated glomerular injury (whether this requires blocking or increasing therapy is currently unknown)
  - Manage the consequences of existing IgAN-induced nephron loss (likely lifelong)
  - Reduction or prevention of IgA-IC formation should incorporate treatments that have been proven to reduce pathogenic forms of IgA (commonly measured as galactose-deficient IgA1 [Gd-IgA1]).
  - Prevention of IgA-IC-mediated injury should incorporate treatments with proven anti-inflammatory and antithrombotic effects and ideally should be used in combination with, and not as a replacement for, treatments that prevent or reduce IgA-IC formation.
  - Management of the consequences of IgAN-induced nephron loss should include:
    - Lifestyle advice, including information on dietary sodium restriction (< 2 g/d), smoking and vaping cessation, weight control, and substance cessation, as appropriate
    - Control of blood pressure with a target of < 130/70 mm Hg
    - Measures to reduce glomerular hyperfiltration and the impact of proteinuria on the tubulointerstitium, using renin-angiotensin system (RAS) blockade as dual endothelin receptor antagonist, sodium-glucocorticoid cotransporter 2 inhibitor (SGLT2i)
    - A thorough cardiovascular risk profile
    - Enrollment in a clinical trial

**1.4.2 Defining a treatment goal in patients with IgAN at risk of progressive loss of kidney function**

**Practice Point 1.4.2.1:** The treatment goal in patients with IgAN at risk of progressive loss of kidney function is to reduce the rate of loss of kidney function to the physiological state (i.e., <1 ml/min/yr for most adults) for the rest of the patient's life. The only validated early biomarker to help guide clinical decision-making is urine protein excretion, which should be maintained at a minimum of <0.5 g/d (or equivalent), and ideally at <0.3 g/d (or equivalent), accepting that in some patients with extensive kidney scarring, this may not be possible and that multiple treatment strategies, including non-pharmacologic interventions, may be needed to achieve this.



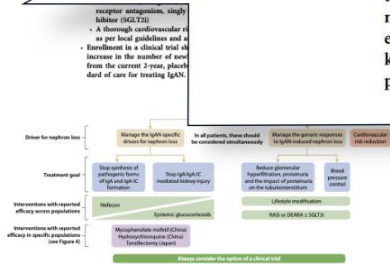
**Figure 3** Treatment targets in immunoglobulin A nephropathy (IgAN) and the positioning of drugs included in this guideline. **Abbreviations:** Current immunosuppressive therapies do have a demonstrable effect on the production of pathogenic forms of IgA and IgA-containing immune complex (IgA-IC), with an understood direct effect of systemically absorbed budesonide on the kidneys. Systemic glucocorticoids have a well-documented anti-inflammatory effect within the kidneys and an understood direct effect on the production of pathogenic forms of IgA and IgA-IC. Strategies to manage the genetic response to IgAN-induced nephron loss may also include the use of 2-hydroxy-2-methylglutaryl-coenzyme A reductase inhibitors in selected patients, SGLT2i that endothelin receptor antagonist, RAS, renin-angiotensin system inhibitor, SGLT2i, sodium-glucose cotransporter 2 inhibitor.

**Practice Point 1.4.2.2:** Treatment of patients with IgAN who are at risk of progressive loss of kidney function and do not have a variant form (variants 1-3) of primary IgAN (Figure 3):

- The focus of management in most patients should be to **immunosuppress**:
- Prevent or reduce immunoglobulin A-containing immune complex (IgA-IC) formation and IgA-IC-mediated glomerular injury (whether this requires blocking an intermediate therapy is currently unknown)
- Manage the consequences of:
  - Reduction or prevention of IgA protein to reduce pathogenesis (IgA-IgA1).
  - Prevention of IgA-IC inflammation by not as a cysteine protease.

**1.4.2 Defining a treatment goal in patients with IgAN at risk of progressive loss of kidney function**

**Practice Point 1.4.2.1:** The treatment goal in patients with IgAN at risk of progressive loss of kidney function is to reduce the rate of loss of kidney function to the physiological state (i.e., <1 ml/min/yr for most adults) for the rest of the patient's life. The only validated early biomarker to help guide clinical decision-making is urine protein excretion, which should be maintained at a **minimum of <0.5 g/d** (or equivalent), and **ideally at <0.3 g/d** (or equivalent), accepting that in **some patients with extensive kidney scarring**, this may not be possible and that multiple treatment strategies, including non-pharmacologic interventions, may be needed to achieve this.

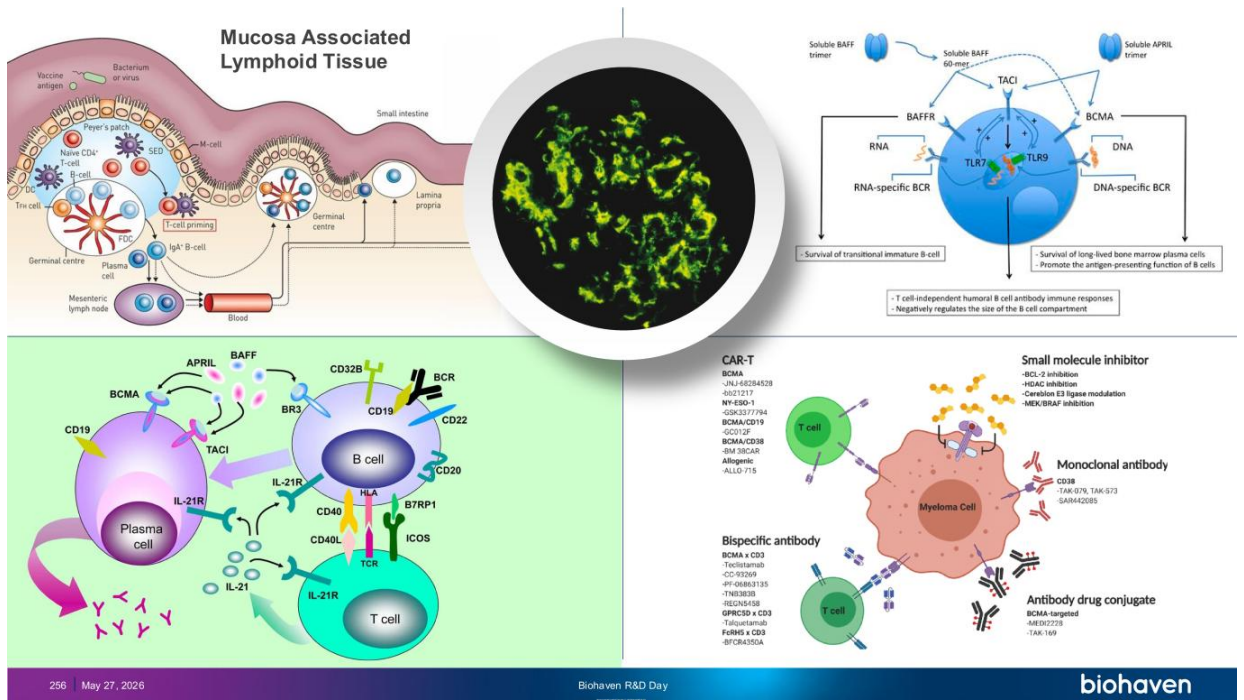


**Figure 3** Treatment targets in immunoglobulin A nephropathy (IgAN) and the positioning of drugs included in this guideline. Following current understanding, nephron loss is driven by a downstream effect on the production of pathogenic forms of IgA and IgA-IC-containing immune complexes (IgA-ICs), with an undetermined direct effect of systemically absorbed hydrocortisone on the kidneys. Systemic glucocorticoids have a well-documented anti-inflammatory effect within the kidneys and an undetermined direct effect on the production of pathogenic forms of IgA and IgA-ICs. Strategies to manage the genetic response to IgA-induced nephron loss may also include the use of 2-hydroxy-2-methylglutaryl-coenzyme A reductase inhibitors in selected patients, SGLT2, sodium-glucose cotransporter 2 inhibitors, RAS, renin-angiotensin system inhibitors, SGLT2, sodium-glucose cotransporter 2 inhibitors.

**In few patients, competitors achieve guideline proteinuria threshold goal**

<b>VOYXACT®<sup>1</sup></b> Sibeprenlimab	<b>FILSPARI®<sup>2</sup></b> Sparsentan
By month 12, 34.3% vs 12.7% placebo <0.5 g/d	By month 9, 11% <0.3 g/d







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

**DEGRADERS**

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

**B CELLS**

**TARPEVO®**  
calliditas

**TARGET B CELLS WITH GLOBAL IMMUNOGLOBULIN SUPPRESSION**

POVETACICEPT    ATACICEPT    VOYXACT®    ZIGAKIBART    FELZARTAMAB    MEZAGITAMAB

ALPINE VERTEX    vera    Eisai    Genmab NOVARTIS    Biogen    Takeda

**INHIBIT COMPLEMENT SYSTEM WITH BROAD IMMUNOSUPPRESSION**

FABHALTA®    SEFAXERSEN    ULTOMIRIS®

NOVARTIS    IONIS <Recho>    Genmab NOVARTIS

**TARGET B CELLS WITH GLOBAL IMMUNOGLOBULIN SUPPRESSION**

FILSPAR®    VANRAFIA®

TRAVERE    Genmab NOVARTIS

**TARGET ENDOTHELIAL RECEPTOR**

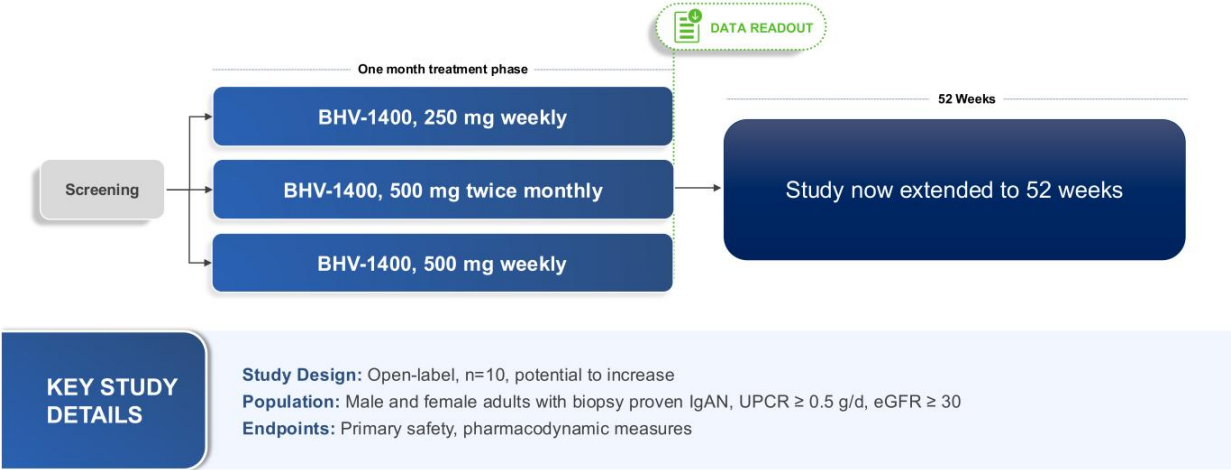
**KEY POINT**

**BHV-1400 is the only therapy designed to remove pathogenic Gd-IgA1, the root cause of IgA, while preserving healthy immune function**

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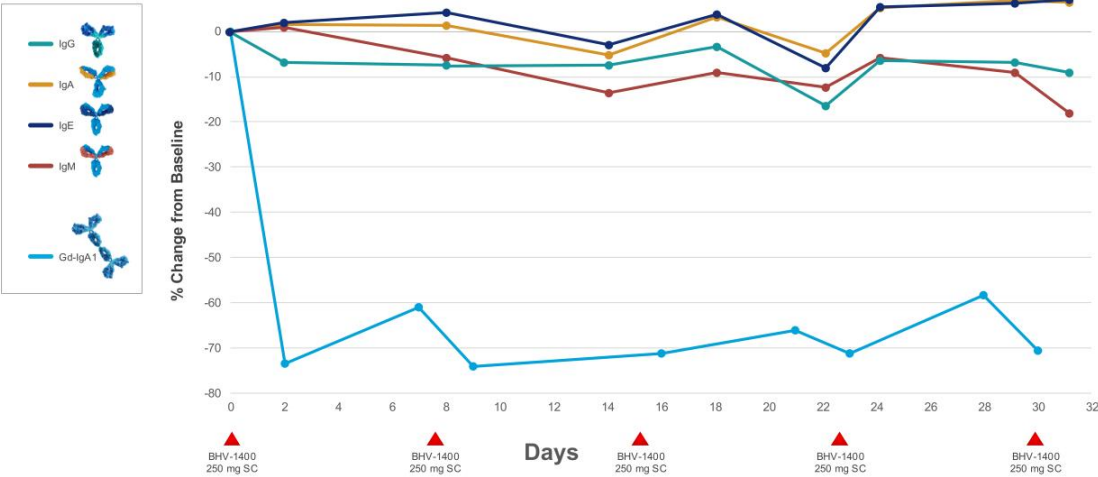
# IgAN Patient Expansion Cohort Study Design



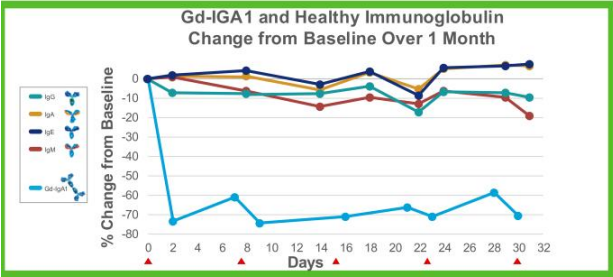
# IgAN Patient Expansion Cohort Site Map



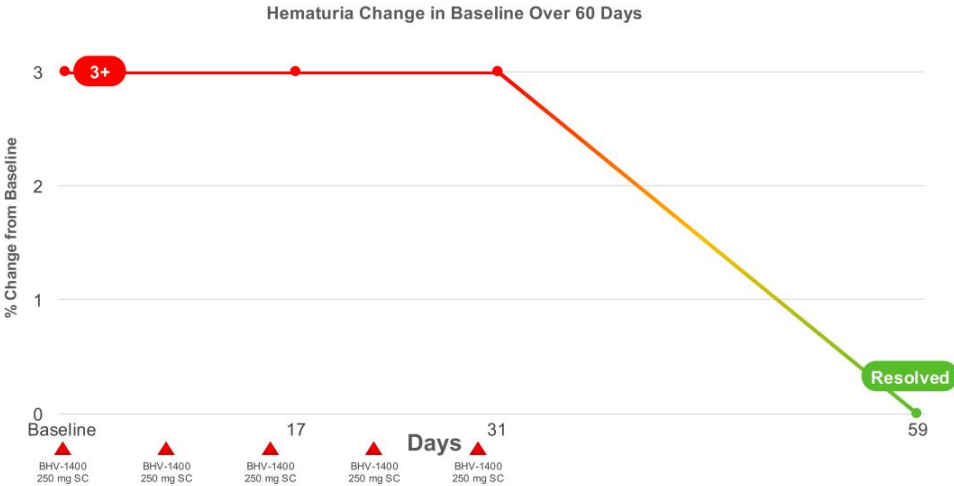
Dr. Barratt's First Patient With IgAN Dosed: BHV-1400 SC Delivers Rapid, Selective, Deep and Sustained Removal of Gd-IgA1 Over First Month



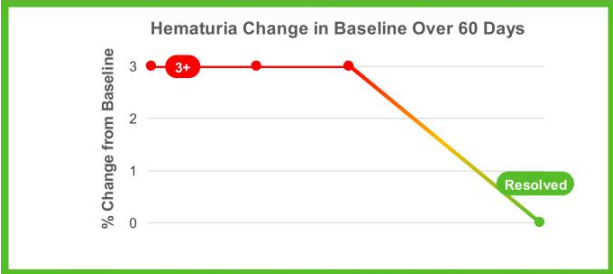
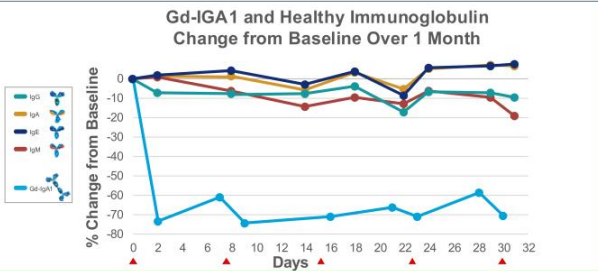
Dr. Jonathan Barratt's First Patient With IgAN Dosed: BHV-1400 SC Delivers Rapid, Selective, Deep and Sustained Removal of Gd-IgA1 Over First Month



# Dr. Jonathan Barratt's First Patient With IgAN Dosed: Removal of Gd-IgA1 Translating Into Rapid Resolution of Hematuria

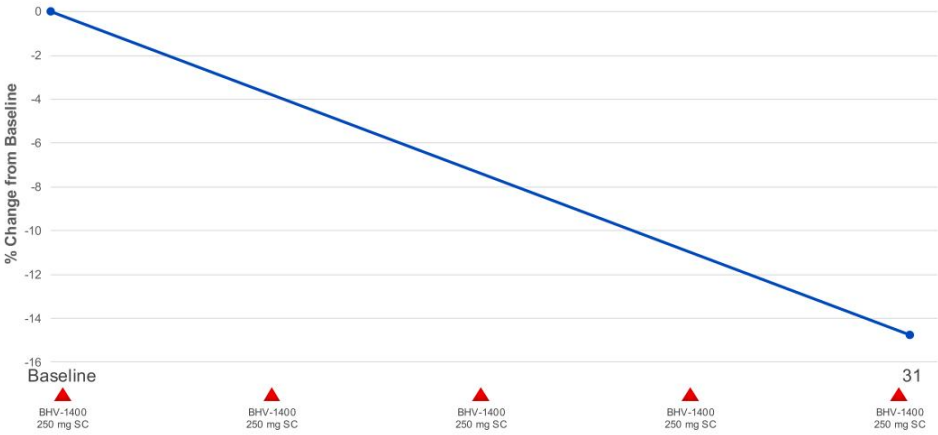


Dr. Jonathan Barratt's First Patient With IgAN Dosed: BHV-1400 SC Delivers Rapid Removal of Gd-IgA1 Translating Into Rapid Resolution of Hematuria

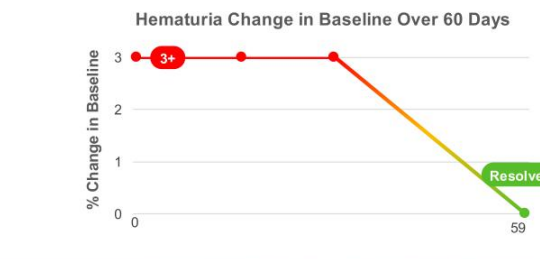
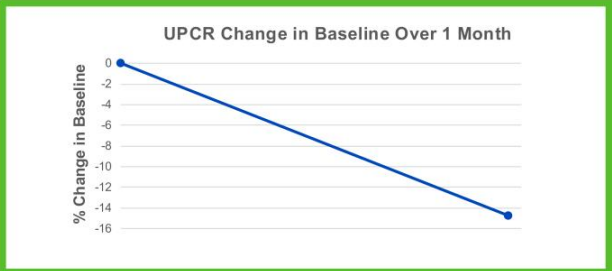
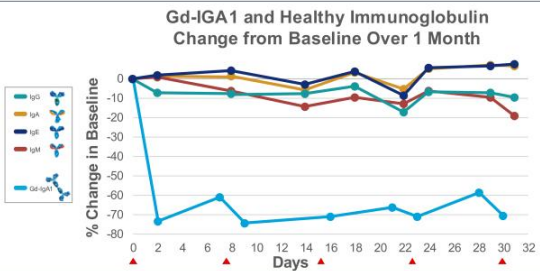




UPCR Change in Baseline Over 1 Month



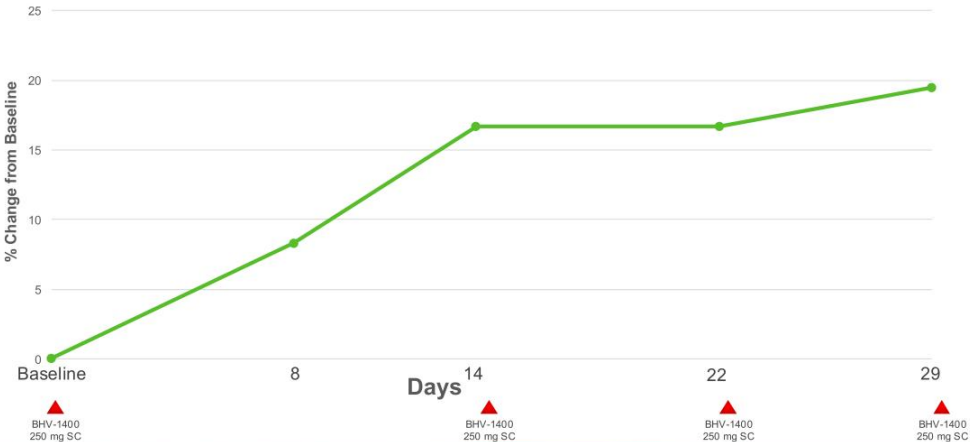
Dr. Jonathan Barratt's First Patient With IgAN Dosed: BHV-1400 SC Delivers Rapid Removal of Gd-IgA1 Translating Into Rapid Improvement of Proteinuria



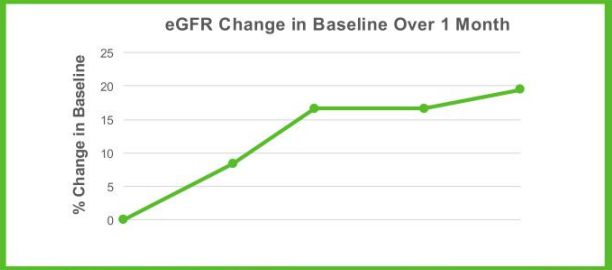
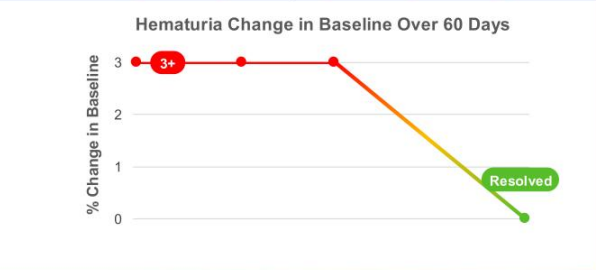
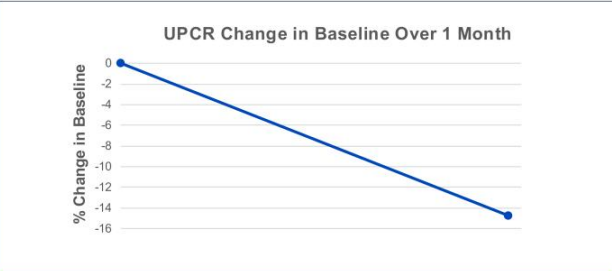
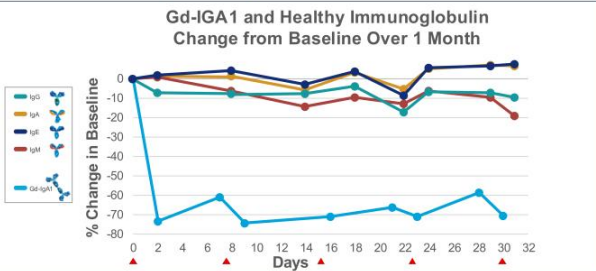
# Dr. Jonathan Barratt's First Patient With IgAN Dosed: BHV-1400 SC Delivers Rapid Removal of Gd-IgA1 Translating Into Rapid Improvement in Kidney Function (eGFR)



eGFR Change from Baseline Over 1 Month



# Dr. Jonathan Barratt's First Patient with IgAN Dosed: BHV-1400 SC Delivers Rapid Removal of Gd-IgA1 Translating Into Rapid Improvement in Kidney Function (eGFR)



## Demographic and Clinical Characteristics of the Patients Receiving BHV-1400 at Baseline

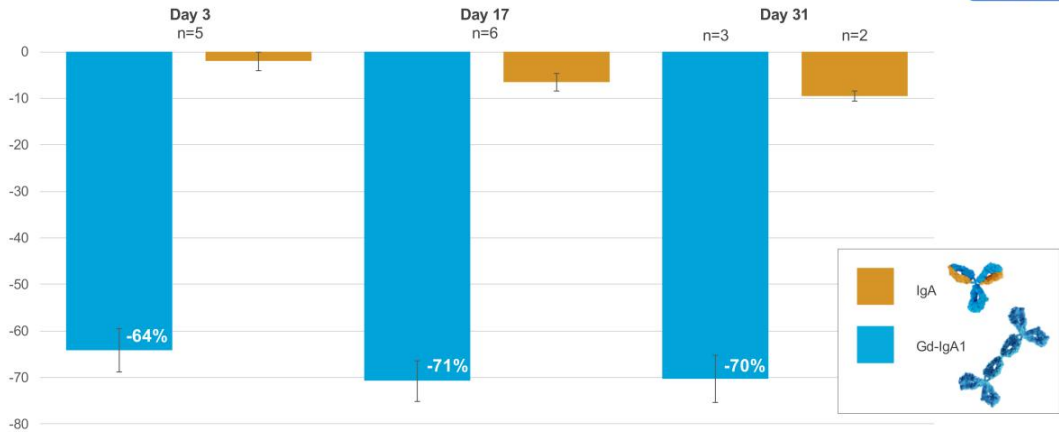
DEGRADERS

Characteristics	Overall (n=10)
<b>Age (yrs)</b>	43.6
Mean [Min, Max]	[27, 65]
<b>Sex n (%)</b>	
Male	6 (60%)
Female	4 (40%)
<b>Race n (%)</b>	
Asian	3 (30%)
White	6 (60%)
Unknown	1 (10%)
<b>Spot UPCR* (mg/g)</b>	766.4 [213–2144]
Mean [Min, Max]	
<b>eGFR** (ml/min/1.73 m<sup>2</sup>)</b>	67 [33–124]
Mean [Min, Max]	
<b>Hematuria (1+, 2+, or 3+) n (%)</b>	2 (20%)
<b>Time from Biopsy (yrs)</b>	3.03 [0.3, 8.9]
Mean [Min, Max]	

UPCR, urinary protein-to-creatinine ratio. eGFR: estimated glomerular filtration rate.

# BHV-1400 500 mg SC Q2WK Deeply and Selectively Removes Gd-IgA1 Without Suppression of Normal Healthy IgA in Patients With IgAN

DEGRADERS



Preliminary data from ongoing study. Graph represents the mean and standard error of % change in Gd-IgA1 from baseline at each time-point in patients with IgAN receiving BHV-1400 500 mg every two weeks.

**BREAKING NEWS** Patients with IgAN administered BHV-1400 achieved deep lowering within hours and 70% lowering within one month of dosing.

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# Hematuria Change With One Month of Dosing BHV-1400 SC

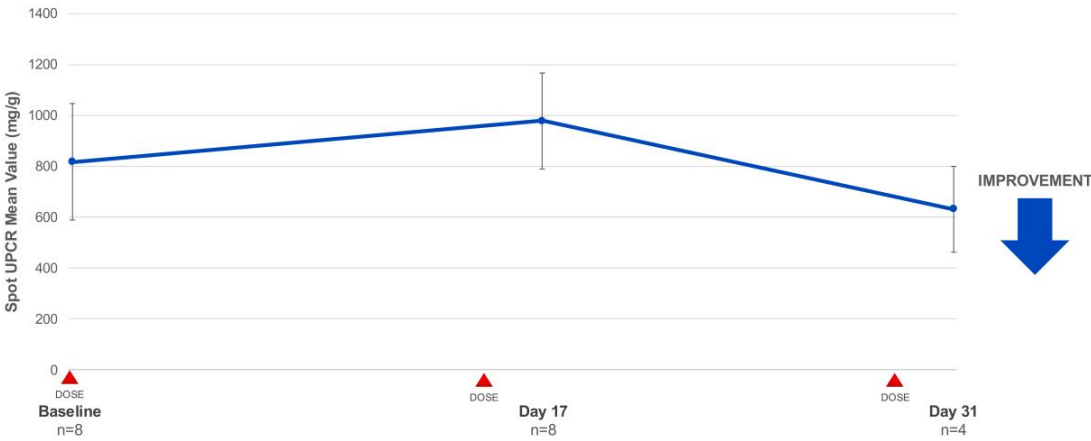
DEGRADERS



Preliminary data from ongoing study. Graph represents hematuria values for participants with IgAN (n=10) receiving BHV-1400 SC for one month of dosing.

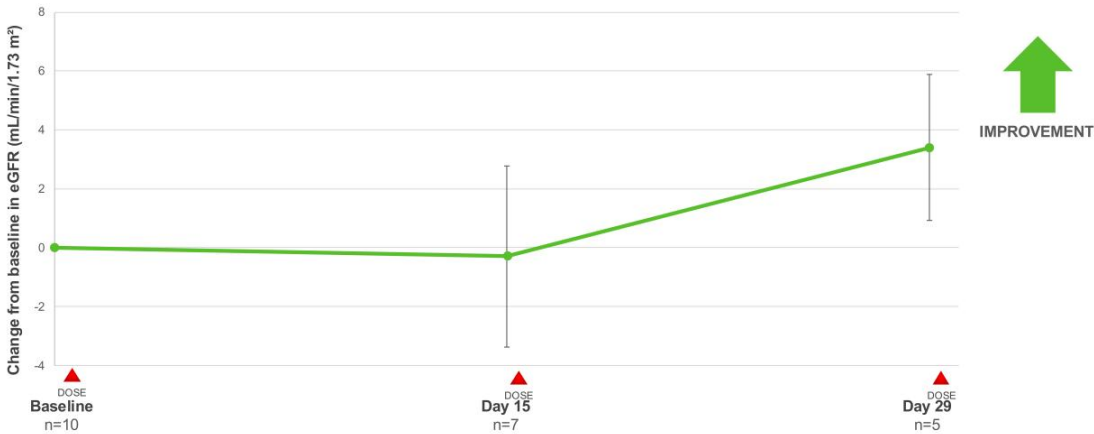
# UPCR Change With One Month of Dosing BHV-1400 SC

DEGRADERS



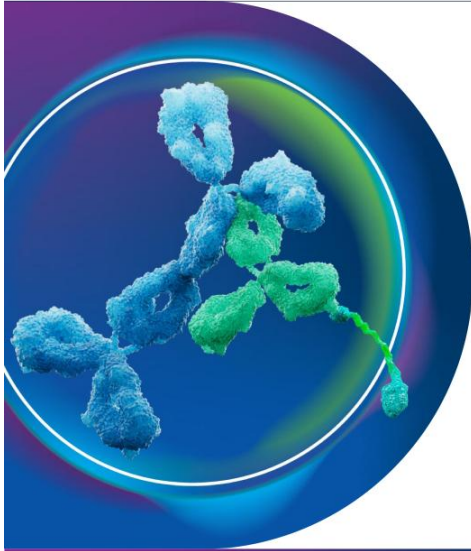
Preliminary data from ongoing study. Graph represent mean and standard error of spot UPCR in participants with IgAN (n=8) receiving BHV-1400 SC for one month of dosing.

# eGFR Change With One Month of Dosing BHV-1400 SC



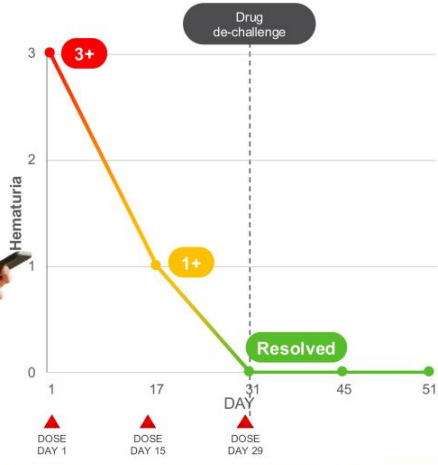
Preliminary data from ongoing study. Graph represent mean and standard error of eGFR in participants with IgAN (n=10) receiving BHV-1400 SC for one month of dosing.

## BHV-1400 Phase 1/2 IgAN Patient Cohort — Safety Summary



- 10 participants with IgA Nephropathy
- Most AEs were mild and self-resolving
- No treatment discontinuations for adverse events
- No clinically significant trends in vitals, ECGs, or labs (including AST/ALT/Tbili)
- No clinical evidence of cardiovascular, renal, hepatic, or hematologic toxicity
- Preservation of IgA, IgG, IgM, IgE
- No SAEs, severe AEs, or AEs resulting in discontinuation of therapy

# BHV-1400 Early Disease Clinical Experience: Rapid, Complete Resolution of Hematuria Within Weeks of Initial Dosing



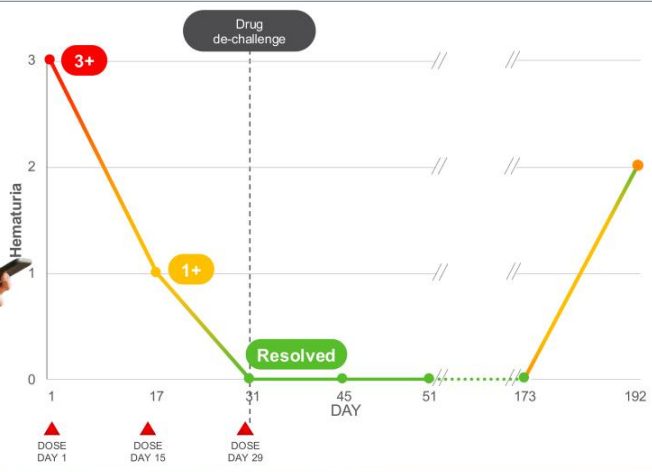
**CASE REPORT:  
Initial IgAN Patient Dosed**

- Young female patient
- Normal eGFR
- Chronic hematuria
- Active lifestyle
- Significant fatigue
- Comorbid diabetes

**KEY POINT** BHV-1400 500 mg SC every other week delivers rapid and complete resolution of hematuria

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# BHV-1400 Durable Response: Off-Treatment Remission Observed Months After Final Study Dose

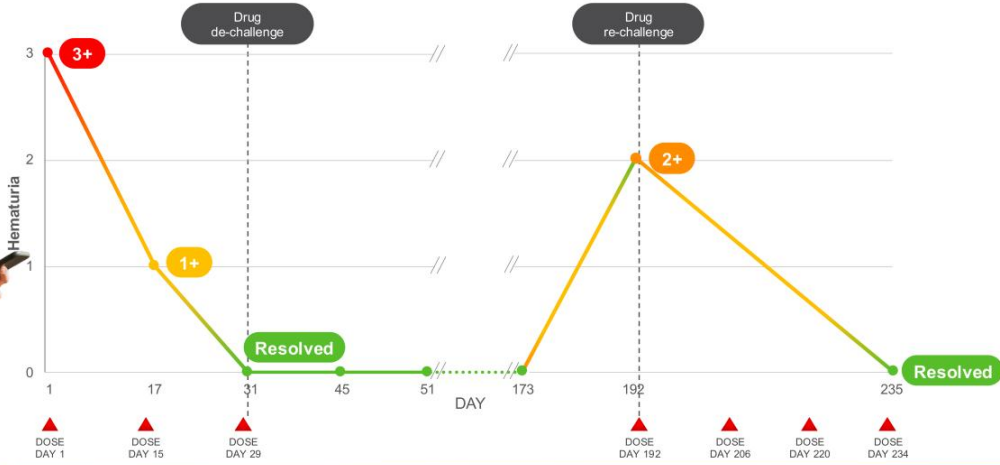


**Disease Recurrence**  
observed after  
extended off-  
treatment period

## KEY POINTS

- Re-treatment initiated upon disease recurrence after extended off-treatment period
- Durability observed well beyond active treatment window

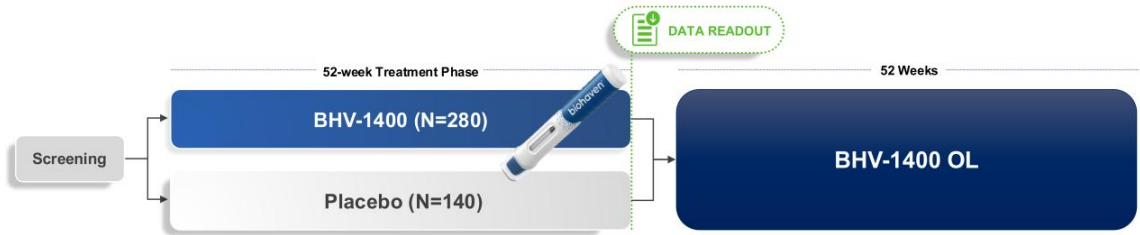
# BHV-1400 Re-Treatment: Re-Challenge Recaptures Complete Hematuria Resolution



- Re-treatment with BHV-1400 500 mg every two weeks initiated upon disease recurrence after extended off-treatment period
- Complete resolution of hematuria re-achieved within weeks of reinitiation

# Lead TRAP Degrader BHV-1400 Enters Phase 3

DEGRADERS



## KEY STUDY DETAILS

**Study Design:** Randomized, double-blind, placebo-controlled trial  
**Population:** Male and female adults with biopsy proven IgAN  
**Dose:** 500 mg bimonthly, at home administration  
**Endpoints:**  $\Delta$  UPCR,  $\Delta$  in eGFR,  $\Delta$  in Gd-IgA1 at week 52

ATD antithyroid drugs

KEY  
POINT

BHV-1400 pivotal trial in IgA nephropathy to commence in the coming weeks

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Biohaven R&D Day

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# Panel

MODERATOR



**Corine Johnson**  
Equity Analyst

**Goldman  
Sachs**

PANELISTS

**Professor Jonathan Barratt, PhD, FRCP**

*The Mayer Professor of Renal Medicine,  
Department of Cardiovascular Sciences  
University of Leicester*

**Malini Gupta, MD, ECNU, FACE, FITS**

*Director  
G2Endo Endocrinology & Metabolism  
2025 AACE Chair Thyroid DSN*

**David Spiegel, MD, PhD**

*Professor of Chemistry and Pharmacology  
Yale University*

**Bruce D. Car, DVM, PhD, DACVP**

*Chief Scientific Officer  
Biohaven*

**Tova Gardin, MD, MPP**

*Chief Translational Officer  
Biohaven*

**Brian McGuire, MD**

*Medical Director  
Biohaven*

**David Pirman, PhD**

*SVP & Head of Drug Discovery  
Biohaven*

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NYSE

## Key Milestones Anticipated in 2026

			1H 2026	2H 2026
INFLAMMATION & IMMUNOLOGY	Gd-IgA1 Degradar   BHV-1400	IgA Nephropathy	Initiate Pivotal IgAN	
	IgG Degradar   BHV-1300	Common Disease (Graves', RA)	Initiate Pivotal Graves'	
	TYK2/JAK1 Inhibitor   BHV-8000 (brain-penetrant)	Parkinson's Disease	Ongoing Phase 2/3 Trial	
MYOSTATIN ACTIVIN	Taldefgrobep Alfa   BHV-2000	Obesity		Phase 2 Topline
ION CHANNEL	Kv7 Activator   Opakalim	Focal Epilepsy		Pivotal Topline
ONCOLOGY	Trop2 ADC +/- PD-1   BHV-1510	Advanced or Metastatic Epithelial Tumors	Initiate expansion cohort in endometrial cancer	
	FGFR3 ADC   BHV-1530	Urothelial Cancer and Other Tumors	Phase 1 in urothelial cancer	

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