KalVista Pharmaceuticals

Corporate Overview

August 2024

Forward-Looking Statements

This presentation and the accompanying oral commentary contain forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to our management. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "could," "expect," "plan," anticipate," "believe," "estimate," "predict," "intend," "potential," "would," "continue," "ongoing" or the negative of these terms or other comparable terminology. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information business plans and objectives, timing and success of our planned nonclinical and clinical development activities, timing and results of nonclinical studies and clinical trials, efficacy and safety profiles of our product candidates, any expectations about safety, efficacy of sebetralstat and our ability to obtain regulatory approvals for sebetralstat and other candidates in development, the ability of sebetralstat to treat hereditary angioedema (HAE), the potential therapeutic benefits and economic value of our product candidates, potential growth opportunities, competitive position, industry environment and potential market opportunities, our ability to protect intellectual property and the impact of global business or macroeconomic conditions, including as a result of inflation, rising interest rates, instability in the global banking system, and geopolitical conflicts, including the conflicts in Ukraine and the Middle East, on our business and operations.

Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. These factors, together with those that are described under the heading "Risk Factors" contained in our most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") and other documents we file from time to time with the SEC, may cause our actual results, performance or achievements to differ materially and adversely from those anticipated or implied by our forward-looking statements.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this presentation, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely upon these statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

KalVista Is Focused on Discovering, Developing and Commercializing Oral Protease Inhibitors

- Lead program, **sebetralstat, is an oral, on-demand treatment for HAE** that achieved positive results in a pivotal Phase 3 clinical trial
  - Sebetralstat would be **first oral option in the $900mm on-demand HAE market** with **potential to transform treatment of HAE** and the entire $2.9bn market
    - **Regulatory approval filings:** Submitted NDA to FDA in June 2024. EMA validated MAA in August 2024. UK, Japan and other countries planned later in 2024; expected first launches in 2025 if approved
  - Sebetralstat internally developed, with **full rights and IP protection into the 2040s**
- **Cash runway** sufficient to fund operations into **2026**

HAE = Hereditary Angioedema.

KalVista Pipeline

Building a pipeline of novel oral, small molecule protease inhibitors through preclinical and clinical development as potential best-in-class treatments for a range of diseases, beginning with HAE

Product	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Status
Sebetralstat	**On-Demand HAE**	KONFIDENT (Trial Completed)				Data reported; NDA submitted June 2024
		KONFIDENT-S (Open-Label Extension)				Trial ongoing, supports approval
		Orally Disintegrating Tablets				sNDA enabling, commence Q4 2024
		KONFIDENT-KID (Pediatric)				Initiated June 2024
Oral Factor XIIa	Multiple Indications					Will advance with partner

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Hereditary Angioedema (HAE)

Hereditary Angioedema

Genetic condition causing painful and pronounced swelling in various parts of the body

- Primarily caused by defect in C1 inhibitor activity, which leads to uncontrolled plasma kallikrein activation and bradykinin release

Orphan disease:
incidence 1 in 10,000 to 1 in 50,000[1]

- 6,500 – 8,000 patients in US; similar in EU
- Incidence consistent worldwide; patients have average of ~2 attacks per month

High unmet need for efficacious and safe oral administration – approved on-demand therapies are injected or infused

- On-demand + prophylaxis is majority share in US, although burden of treatment remains high
- On-demand only is majority share ex-US

[1]*www.haei.org*

HAE Management

The goals of treatment are to achieve total control of the disease and to normalize patients' lives[1,2]:

Access to effective on-demand treatment in ***all*** patients with 3 main goals:

- Treat early
- Consider treatment of all attacks
- Carry enough on demand treatment at all times to treat 2 attacks[1,2]

Consideration of long-term prophylaxis (LTP) in addition to on-demand treatment in ***appropriate*** patients based on frequency and severity of attacks and impact on quality of life [1,2]

References: 1. Busse PJ, et al. *J Allergy Clin Immunol Pract*. 2021;9(1):132-150.e3. 2. Maurer M, et al. *Allergy*. 2022;77(7):1061-1990.

Unmet Need In HAE Is Underappreciated

Attacks still cause anxiety and impact quality of life

Anxiety and depression are common in people living with HAE

~50% of people taking prophylaxis **continue to experience HAE attacks**

96% of people on prophylaxis feel they must change their plans for the day when an attack occurs[3]

People living with HAE **prefer to treat at home** to avoid treating attacks in public

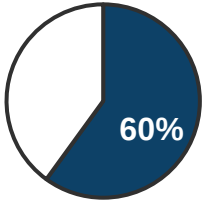
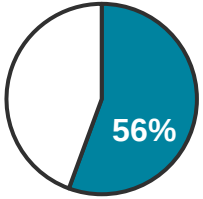
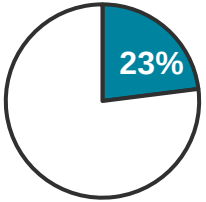
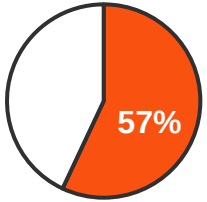
People typically **delay injectable treatment for hours** and studies show more than **40% of attacks aren't treated at all**[1,2,4]

[1]Maurer M, et al. Hereditary Angioedema Attacks Resolve Faster and Are Shorter after Early Icatibant Treatment. PLoS ONE. 2013;8(2):e53773. [2]Longhurst H J et al. Real-world outcomes in hereditary angioedema: first experience from the Icatibant Outcome Survey in the United Kingdom Allergy Asthma Clin Immunol. 2018;14: 28. [3]Remaining Burden of Hereditary Angioedema (HAE) Attacks Despite Modern Long-term Prophylaxis Stephen Betschel, Sally van Kooten, Markus Heckmann, Sherry Danese, Ledia Goga,Teresa Caballero; EAACI 2023 Hybrid Congress. [4]Banerji A, et al. Allergy Asthma Proc. 2015;36(3):213-7. doi: 10.2500/aap.2015.36.3824

Patients on Long-Term Prophylaxis Still Have Attacks

Although LTP reduces attack frequency, many patients continue to have attacks and require ready access to effective on-demand treatment

Proportion of patients that experienced attacks on approved LTP in placebo-controlled trials

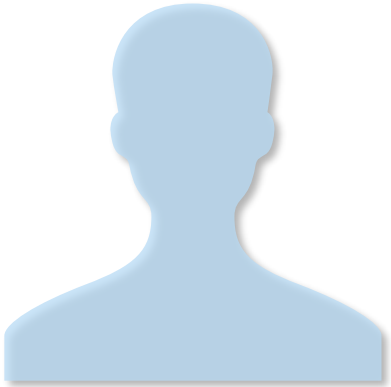
Treatment	C1-INH (SC) 60 IU/kg[1]	Lanadelumab 300 mg Q2W[2]		Berotralstat 125 mg[3]
Trial design	Randomized, placebo-controlled crossover phase 3 trial (16 weeks)	Randomized, double-blind, parallel-group, placebo-controlled phase 3 trial (26 weeks)		Randomized, double-blind, parallel-group, dose-response phase 2 trial[4] (28 days)
Patients experiencing attacks during observed period	(N=45)	(N=27)		(N=14)
				
	Entire 16-week treatment period	Entire 26-week treatment period	Steady state (days 70-182)	Entire 28-day treatment period

References: 1. Longhurst H, et al. N Engl J Med. 2017;376(12):1131-1140. 2. Banerji A, et al. JAMA. 2018;320(20): 2108-2121. 3. Aygören-Pürsün E, et al. N Engl J Med. 2018;379:352-362. 4.Not reported in phase 3 trial.

On-Demand Therapy for HAE Remains a Critical Need

Attacks Happen

~50% of patients on prophylaxis still have attacks[1]



Severity Remains

KONFIDENT study demonstrated LTP use does not reduce attack severity[2]

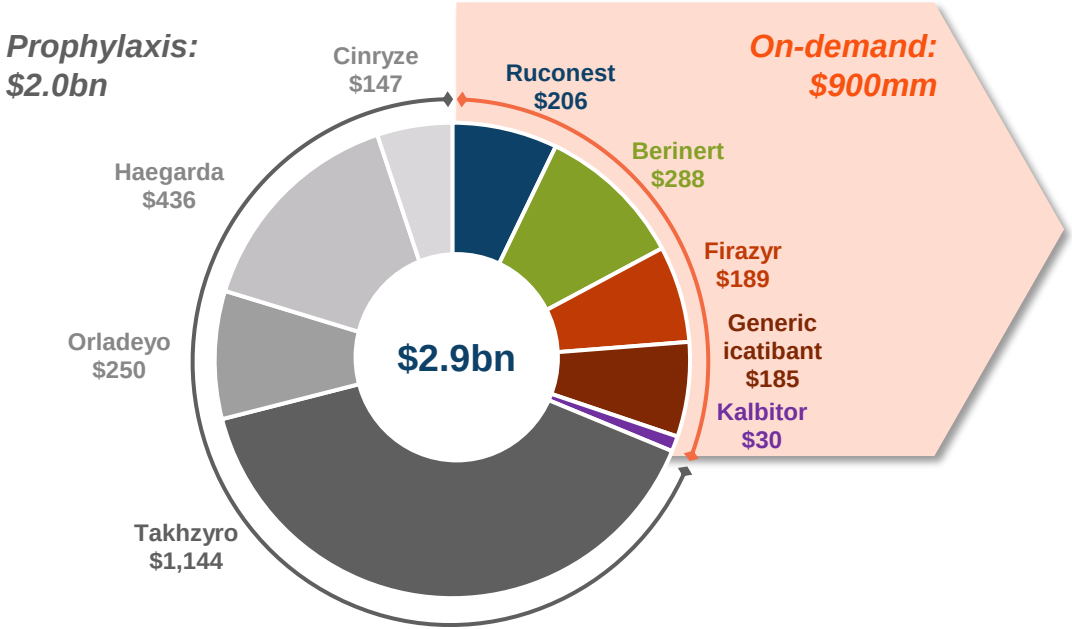
On-Demand Resilience

On-demand treatment total volume remains unchanged since 2018[3]

1,See references on slide 11. 2. See slide 18. 3. IQVIA NSP Data (2018-2023).
LTP = Long-Term Prophylaxis

On-Demand: $900 Million Market, With Growth Potential

2022 Global HAE Market



At branded prices, US on-demand market alone would be +$1bn

US units 2022

Ruconest	29,200
Berinert	35,400
Firayzr	10,500
Gx icatibant	49,300
Total units	124,400

Firazyr WAC/dose: $10,800

All Data from Evaluate Pharma, public filings and certain Company estimates.

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Sebetralstat: HAE On-Demand Therapy

The Sebetralstat Treatment Vision

EARLY

- Patients empowered to **treat early** - at **first recognition** of attack
- Halt progression of swelling at **earliest stages**

100%

ALL ATTACKS

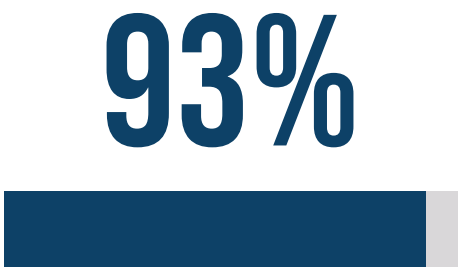
- Patients **able to treat all attacks**, since it is impossible to predict which ones will escalate in severity or migrate to other anatomic locations, including the larynx
- Current **barriers to treatment are removed** including pain and inconvenience associated with parenteral therapies

EASE OF USE

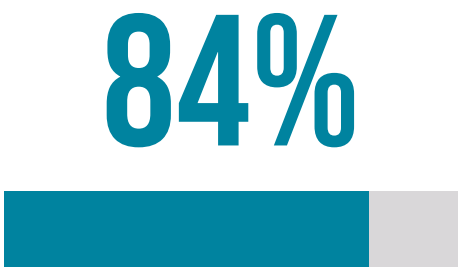
- Sebetralstat dosing is **simple** with easy-to-take **tablets**
- Patients can **easily carry, store and access** anytime, anywhere
- **Quick-dissolving oral disintegrating tablet** (ODT), a potential future advancement

Physicians and Patients Plan to Quickly Adopt Sebetralstat

Nearly all patients indicated high likelihood to proactively mention sebetralstat to their physician



93% of HCPs expressed **intention to prescribe**

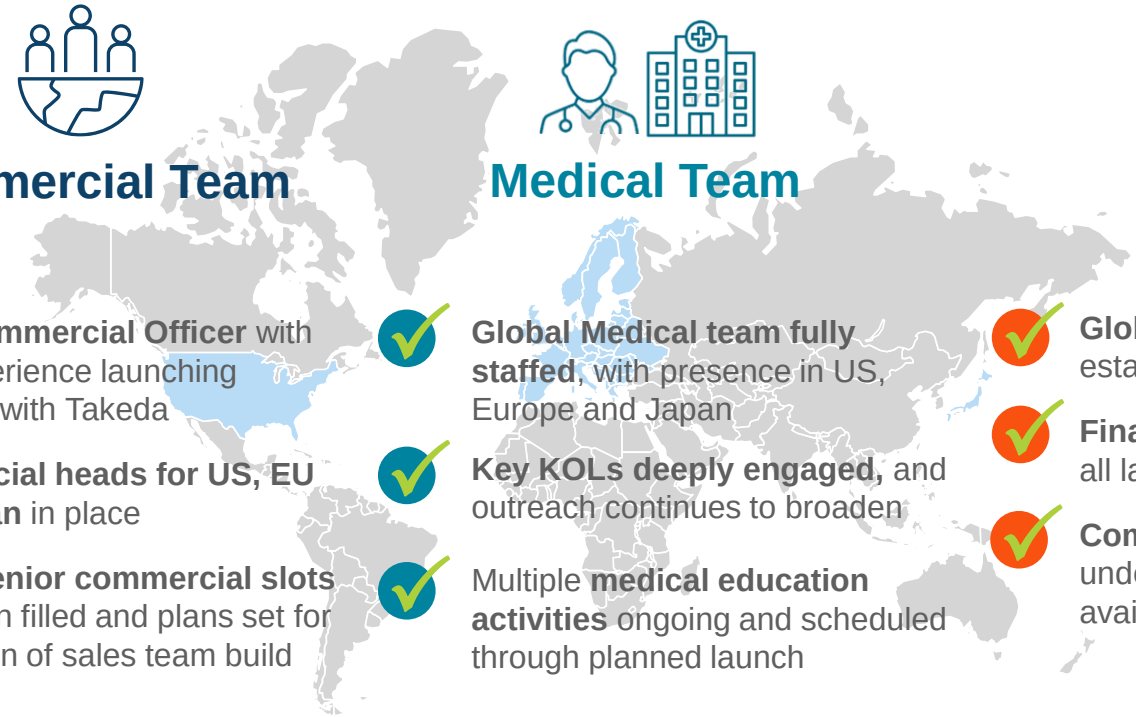


84% of HCPs strongly agree that **patients will prefer sebetralstat**

77% of HCPs state the percentage of **attacks treated will increase**

HCP Quant Research with N = 43 Allergists / Immunologists
Qualitative Research with N=31 patients and caregivers

Commercialization Activities Ramping Up and On Track For a 2025 Launch



Commercial Team

- **Chief Commercial Officer** with prior experience launching Takhzyro with Takeda
- **Commercial heads for US, EU and Japan** in place
- All **key senior commercial slots** have been filled and plans set for completion of sales team build

Medical Team

- **Global Medical team fully staffed**, with presence in US, Europe and Japan
- **Key KOLs deeply engaged,** and outreach continues to broaden
- Multiple **medical education activities** ongoing and scheduled through planned launch

Supply Chain

- **Global supply chain** plan established and being finalized
- **Final packaging** determined for all launch countries
- **Commercial manufacture** underway to ensure launch stock available to ship **day of approval**

Enabling a Fundamental Change in HAE Therapy Options

KONFIDENT™

Positive topline results from the largest clinical trial conducted in HAE

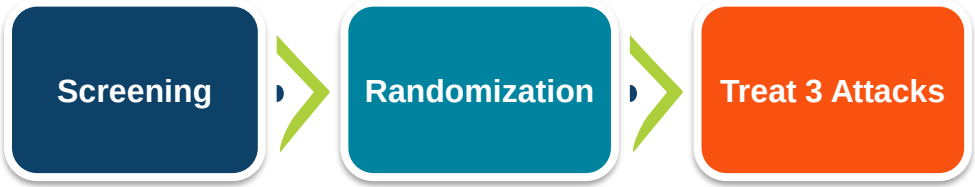
We believe SEBETRALSTAT offers the promise to be the foundational HAE treatment

- **On-demand with or without prophylaxis**
- **Any attack location or severity**
- **Adults and adolescents**

Sebetralstat Phase 3 Trial Design

KONFIDENT™
SEBETRALSTAT CLINICAL TRIAL

- Randomized, double-blind 3-way crossover trial assessing 300 mg or 600mg sebetralstat versus placebo
- Each patient treated up to 3 attacks anytime, anywhere
  - One with each treatment in a randomized, blinded sequence
  - Patients were able to take an optional additional dose if needed



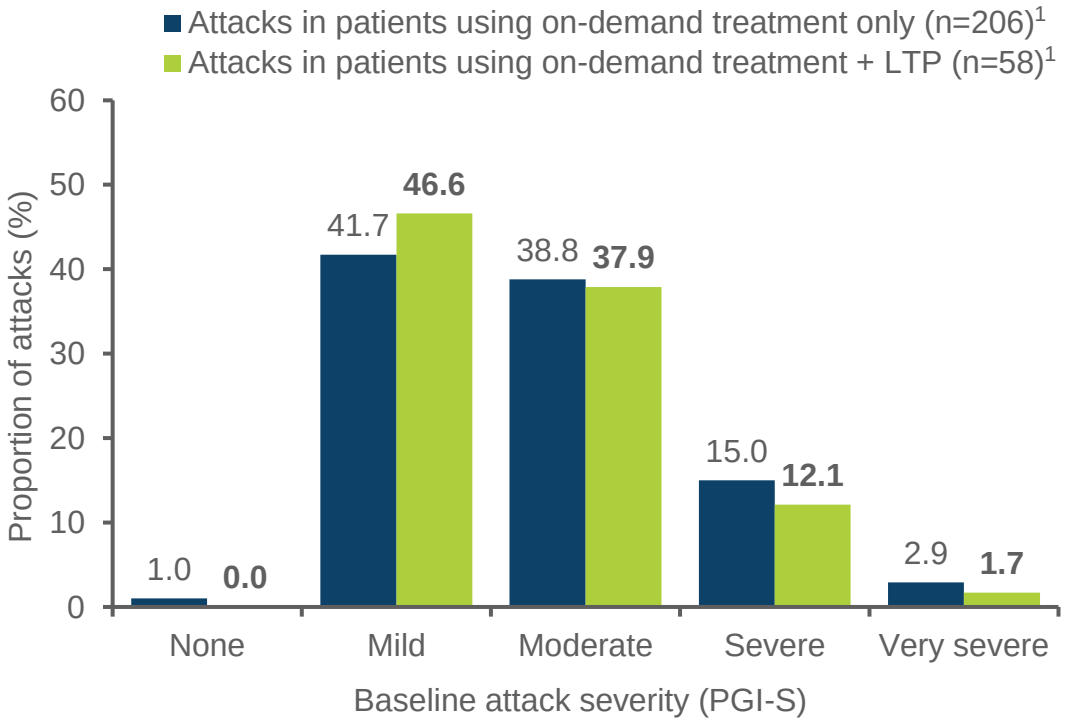
Primary Endpoint

- Time to beginning of symptom relief (PGI-C)

Key Secondary Endpoints

- Time to improvement (PGI-S)
- Time to resolution (PGI-S)

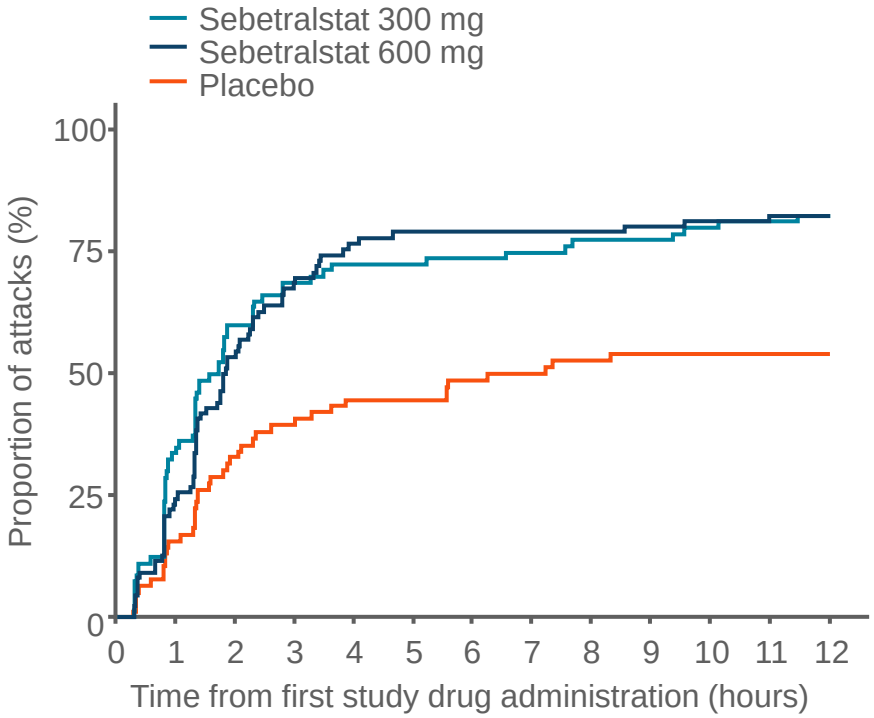
Comparable Attack Severity in Patients Using LTP



	Total (N=110)
Current treatment regimen, n (%)	
On-demand only	86 (78.2)
On-demand + LTP	24 (21.8)
Berotralstat	11 (10.0)
Lanadelumab	8 (7.3)
C1INH	5 (4.5)

1. Baseline severity for 1 attack in each group not reported. Data on file.

Primary Endpoint: Time to Beginning of Symptom Relief Was Statistically Significantly Faster vs Placebo



- Time to beginning of symptom relief was statistically significantly faster vs placebo for
  - **300 mg (*p*<0.0001)**
  - **600 mg (*p*=0.0013)**

- Median time (95% CI) to beginning of symptom relief was
  - **1.61 h (1.28, 2.27) for 300 mg**
  - **1.79 h (1.33, 2.27) for 600 mg**
  - 6.72 h (2.33, >12) for placebo

Seeking permission from the New England Journal of Medicine to reproduce this figure

Primary Endpoint: Consistent Treatment Effect Across Subgroups

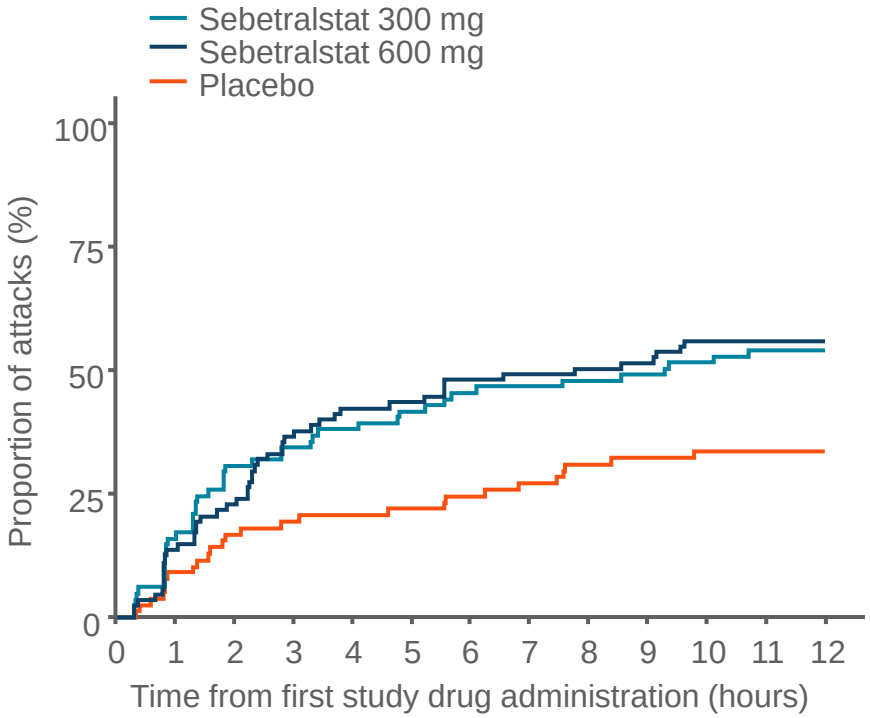
Treatment effect with sebetralstat was consistent across subgroups including

– Sex, race, age, geographic region, HAE subtype, time to treatment, attack location, attack severity

Time to beginning of symptom relief	Sebetralstat 300 mg		Sebetralstat 600 mg	
Subgroup	**n**	**Median (95% CI)**	**n**	**Median (95% CI)**
On-demand with LTP	19	1.85 (0.79, 3.47)	21	2.03 (0.78, 3.41)
Adolescent	10	2.27 (0.28, 9.36)	11	2.16 (0.33, 9.53)
Severe/very severe	14	1.40 (0.78, 2.78)	18	1.50 (0.79, 2.27)

Data on file

Key Secondary Endpoint: Time to Reduction in Attack Severity Was Statistically Significantly Faster vs Placebo



- Time to reduction in attack severity was statistically significantly faster vs placebo for
  - **300 mg (*p*=0.0036)**
  - **600 mg (*p*=0.0032)**

- Median time (95% CI) to reduction in attack severity was
  - **9.27 h (4.08, >12) for 300 mg**
  - **7.75 h (3.27, >12) for 600 mg**
  - >12 h (>12, >12) for placebo

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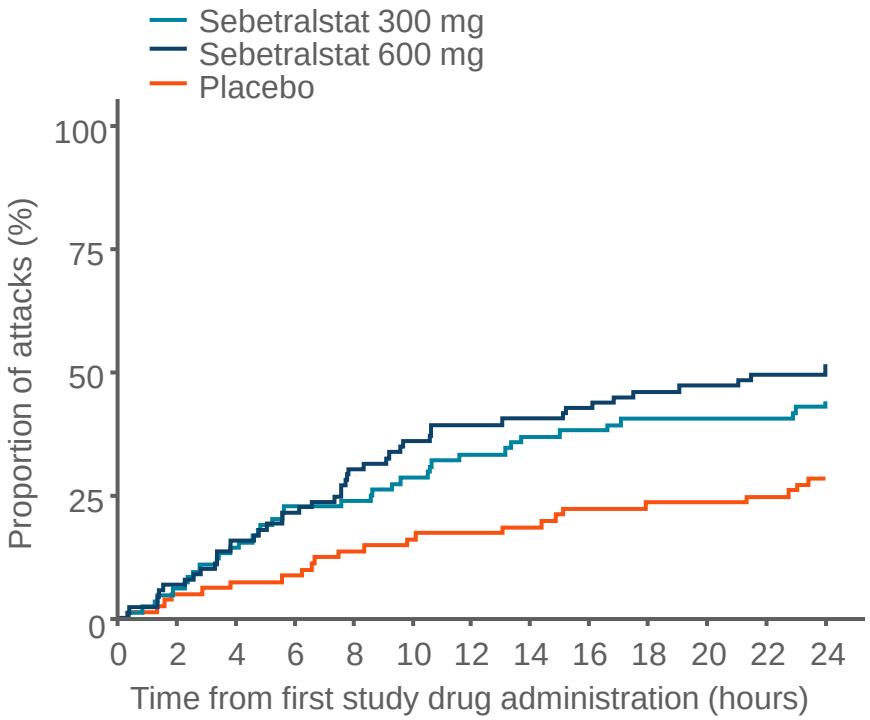
Key Secondary Endpoint: Time to Complete Attack Resolution Was Statistically Significantly Faster vs Placebo



- KONFIDENT was the first ever trial to assess complete attack resolution. Prior trials only assessed “near complete” resolution
- Time to complete attack resolution was statistically significantly faster vs placebo for
  - **300 mg (*p*=0.0022)**
  - **600 mg (*p*=0.0001)**
- Proportion achieving complete attack resolution within 24 hours was
  - **44.0% for 300 mg**
  - **51.7% for 600 mg**
  - 28.4% for placebo

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Well-Tolerated, With a Safety Profile Similar to Placebo

There were no patient withdrawals due to any adverse event and no treatment-related serious adverse events were observed

System organ class preferred term, n (%) E	Sebetralstat 300 mg (n=86)	Sebetralstat 600 mg (n=93)	Placebo (n=83)
Gastrointestinal disorders	1 (1.2) 1	1 (1.1) 1	1 (1.2) 1
Dyspepsia	1 (1.2) 1	0	0
Nausea	0	1 (1.1) 1	1 (1.2) 1
General disorders and administration site conditions	1 (1.2) 1	0	0
Fatigue	1 (1.2) 1	0	0
Nervous system disorders	0	1 (1.1) 1	2 (2.4) 2
Headache	0	1 (1.1) 1	1 (1.2) 1
Dysgeusia	0	0	1 (1.2) 1
Reproductive system and breast disorders	0	0	1 (1.2) 1
Menstruation irregular	0	0	1 (1.2) 1
Skin and subcutaneous tissue disorders	0	0	1 (1.2) 1
Rash	0	0	1 (1.2) 1

E, number of events; TEAE, treatment-emergent adverse events. On-treatment AEs were defined as TEAEs that start within 3 days of administering the final dose of study drug for an attack. At each level of patient summarization, a patient is counted once if the patient reported one or more events. Adverse events were coded using MedDRA, Version 26.0.
See Table 14.3.1.3.2 – Safety Set. Seeking permission from the New England Journal od medicine to reproduce this table.

Sebetralstat Patients Achieve Symptom Relief While Today's Patients are Still Deciding Whether to Treat

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Current On-Demand

5+ HOURS

3.8 hours[2]
Time to Treatment

~2 hours[1]
Symptom Relief

Attack Recognition

41 min
Time to Treatment

96 minutes
Symptom Relief

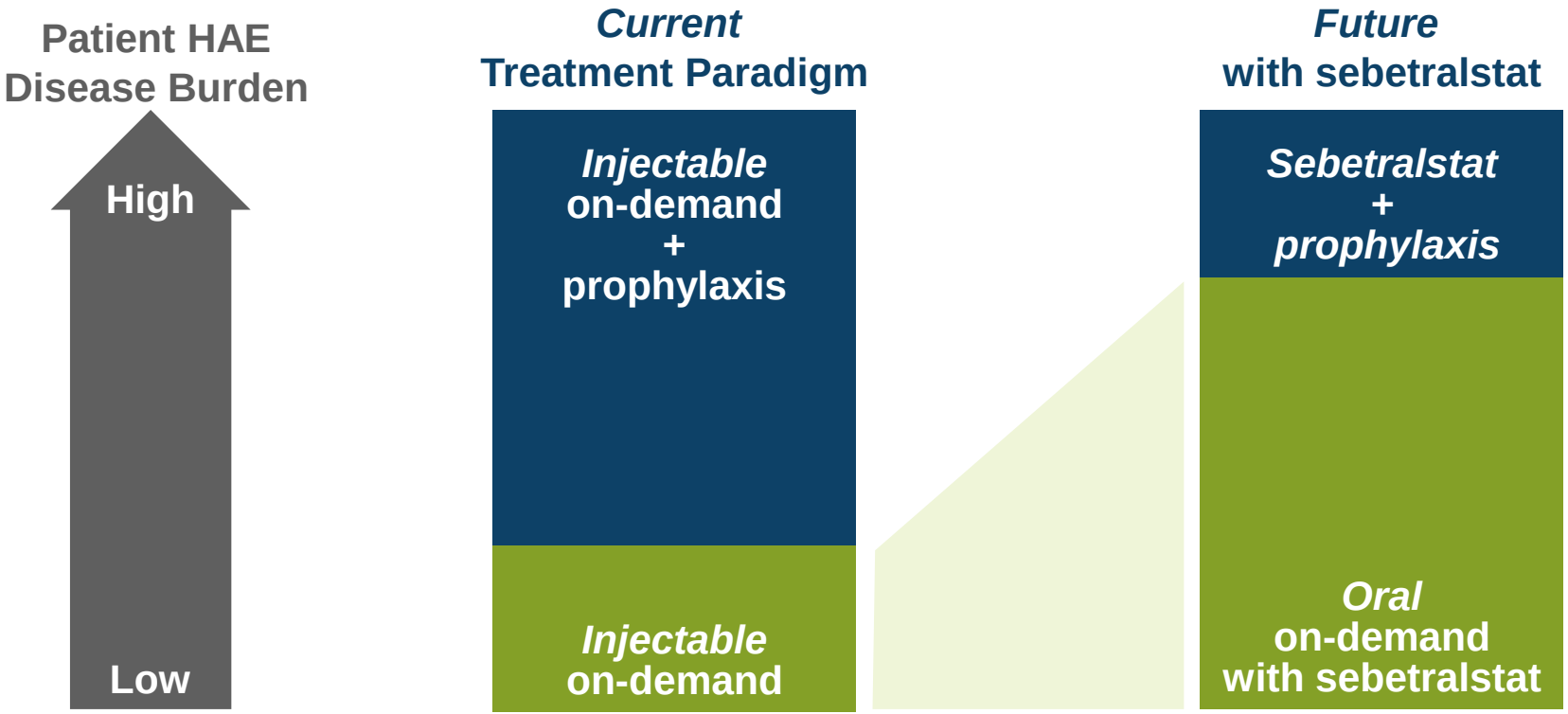
137 MINUTES

Sebetralstat

Treatment Success Is Measured in Minutes Not Hours

1. Firazyr (icatibant). Package insert. Lexington, MA: Shire Orphan Therapies, Inc; 2011. 2. Data on file.

Sebetralstat Can Shift the HAE Treatment Paradigm…



…And Become the Foundational HAE Therapy

1 Market Share

- Convert current on-demand market, including prophylaxis patients, who still experience attacks
- Branded pricing

2 Increased Treatment

- ~40% of attacks are untreated, including for prophylaxis patients[1]
- More attacks will ultimately be treated for both prophylaxis and on-demand patients

3 Prophy ↓ On-Demand

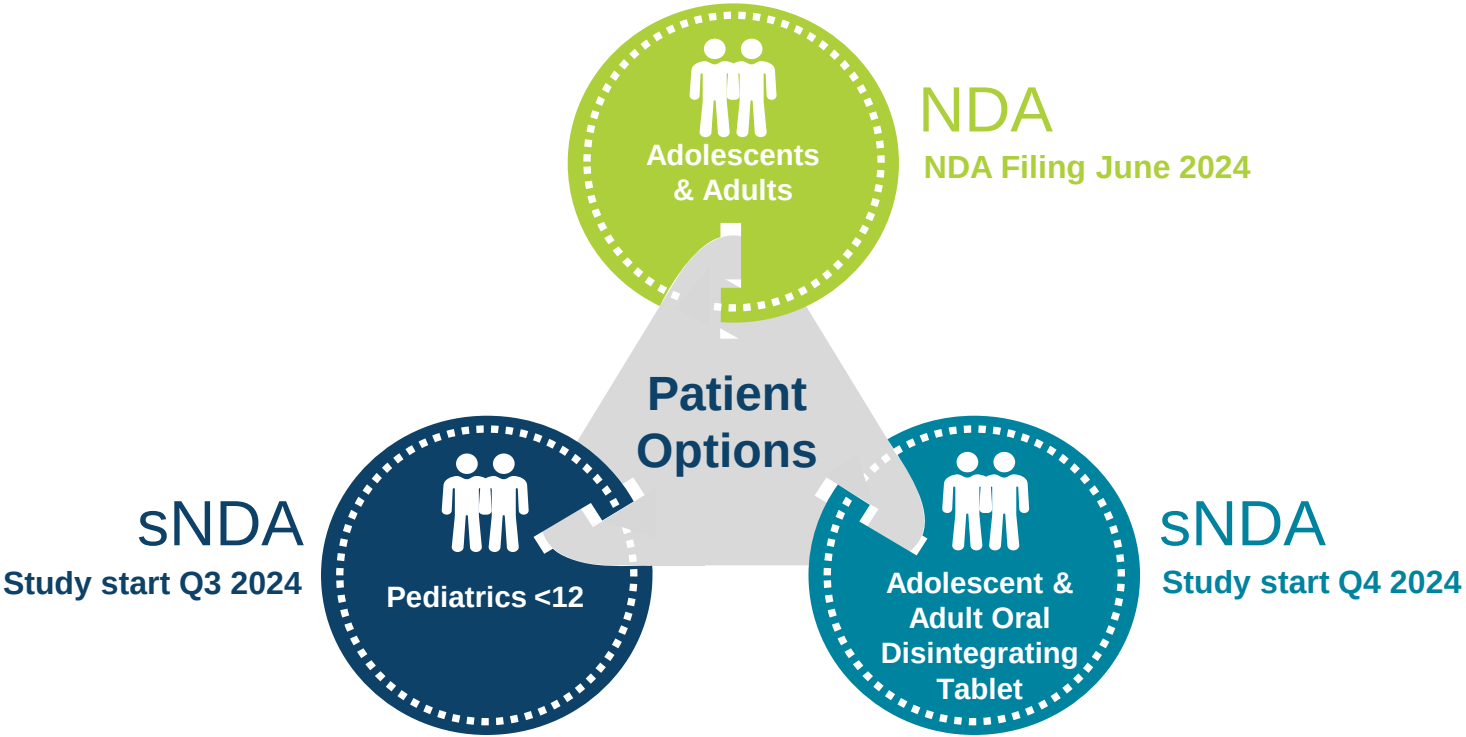
- Patients may switch from prophylaxis to on-demand, seeking an efficacious and safe oral option
- More cost effective for many prophylaxis patients

4 Future Indications

- Plasma kallikrein mediated normal C1-INH angioedema
- Short-term prophylaxis
- Pediatrics 2-11

1 Banerji A, et al. Allergy Asthma Proc. 2015;36(3):213-7. doi: 10.2500/aap.2015.36.3824

Lifecycle Management Will Enhance Ease of Use and Compliance to Continue Sebetralstat Growth



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Factor XIIa

FXII Contributes to Multiple Disease Mechanisms

FXII

Kallikrein-Kinin System (KKS)

- FXII activation generates plasma kallikrein
- Cleavage of high molecular weight kininogen generates bradykinin and activates bradykinin B2 receptors
- Increased vascular permeability and edema

Edema

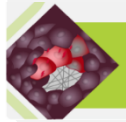
Intrinsic Coagulation Cascade

- FXII activation by platelets and artificial surfaces
- Initiation of the intrinsic clotting cascade through FXIa
- Increased thrombin generation and clot formation

Thrombosis

Inflammatory Vascular Processes

- Activation of FXII generates plasma kallikrein
- Triggers the complement system via components C3a and C5a
- Activates downstream protease receptors and inflammatory effectors



Inflammation

FXIIa is an attractive target, and KalVista is the world leader in oral FXIIa inhibitor discovery

- FXIIa implicated in multiple disease states
- KalVista has discovered several distinct series of oral FXIIa inhibitors
- Will be developed further in collaboration with partner(s)

KalVista Value Proposition

- Data from **Phase 3 KONFIDENT trial** announced February 2024; **met all primary and secondary endpoints**, with **safety profile similar to placebo**
  - Sebetralstat would be **first oral option in the $900mm on-demand HAE market** with **potential to transform treatment of HAE** and the entire $2.9bn market
    - **Regulatory approval filings:** Submitted NDA to FDA in June 2024. EMA validated MAA in August 2024. UK, Japan and other countries planned later in 2024; expected first launches in 2025 if approved
  - Sebetralstat internally developed, with **full rights and IP protection into the 2040s**
- **Cash runway** sufficient to fund operations into **2026**

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NASDAQ: KALV