Abeona® THERAPEUTICS

Stifel 2026 Healthcare Conference

November 11, 2026



Forward-looking statements

This presentation contains certain statements that are forward-looking within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and that involve risks and uncertainties. We have attempted to identify forward-looking statements by such terminology as "may," "could," "believe," "would," "anticipate," "expect," "intend," "potential," and similar words and expressions (as well as other words or expressions referencing future events, conditions or circumstances), which constitute and are intended to identify forward-looking statements. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, numerous risks and uncertainties, including but not limited to, our ability to successfully commercialize and market ZEVASKYN, including manufacturing sufficient batches of ZEVASKYN to meet demand; the therapeutic potential of ZEVASKYN; whether the unmet need and market opportunity for ZEVASKYN are consistent with the Company's expectations; our ability to realize the anticipated benefits of the Company's acquisition of ABO-801, including the integration of ABO-801 into our business; that ABO-801 may not progress through clinical development or receive required regulatory approvals within expected timelines or at all; that clinical trials may not confirm any safety, potency or other product characteristics described or anticipated for ABO-801; that our use of the dysphagia symptom questionnaire ("DSQ") in the next ABO-801 study may be unsuccessful; our ability to successfully conduct a Phase 3 clinical trial for ABO-801 and obtain FDA approval of, and successfully commercialize, ABO-801, if approved; our ability to obtain, maintain, defend, and enforce patent and other intellectual property protection for ABO-801, and to successfully defend against any third-party challenges to the validity, scope, or enforcement of such intellectual property; our ability to consummate the private placement transaction announced on November 9, 2026 or realize the anticipated benefits from the transaction; the risk that commercial demand for FAYUVI may be less than anticipated and we thus may not receive any milestone, royalty, or other payments from Ultragenyx pursuant to our licensing agreement; continued interest in our portfolio; our ability to submit an investigational new drug application for ABO-701 and enroll patients in clinical trials; the outcome of future meetings with and inspections by the FDA or other regulatory agencies, including those relating to preclinical programs and to the cGMP manufacturing of ZEVASKYN; the ability to achieve or obtain necessary regulatory approvals for our pre-clinical programs; our ability to execute on our key business priorities; the impact of any changes in the financial markets and global economic conditions, including those resulting from changes to U.S. or other countries' trade policy, such as current or future tariffs; risks associated with data analysis and reporting; our ability to generate sufficient cash to fund our operations; and other risks disclosed in the Company's most recent Annual Report on Form 10-K and subsequent periodic reports filed with the Securities and Exchange Commission. The Company undertakes no obligation to revise these forward-looking statements or to update them to reflect events or circumstances occurring after the date of this presentation, whether as a result of new information, future developments or otherwise, except as required by the federal securities laws.

Abeona, a Commercial-Stage Rare Disease Company

Anchored by a growing portfolio, with ZEVASKYN providing **an established commercial foundation** that serves patients with rare diseases



Strong capabilities in late-stage clinical development with operating efficiency



Building a **diversified, durable revenue-generating** rare disease business to **sustain long-term growth**



Experienced leadership team with decades of experience in development and commercialization



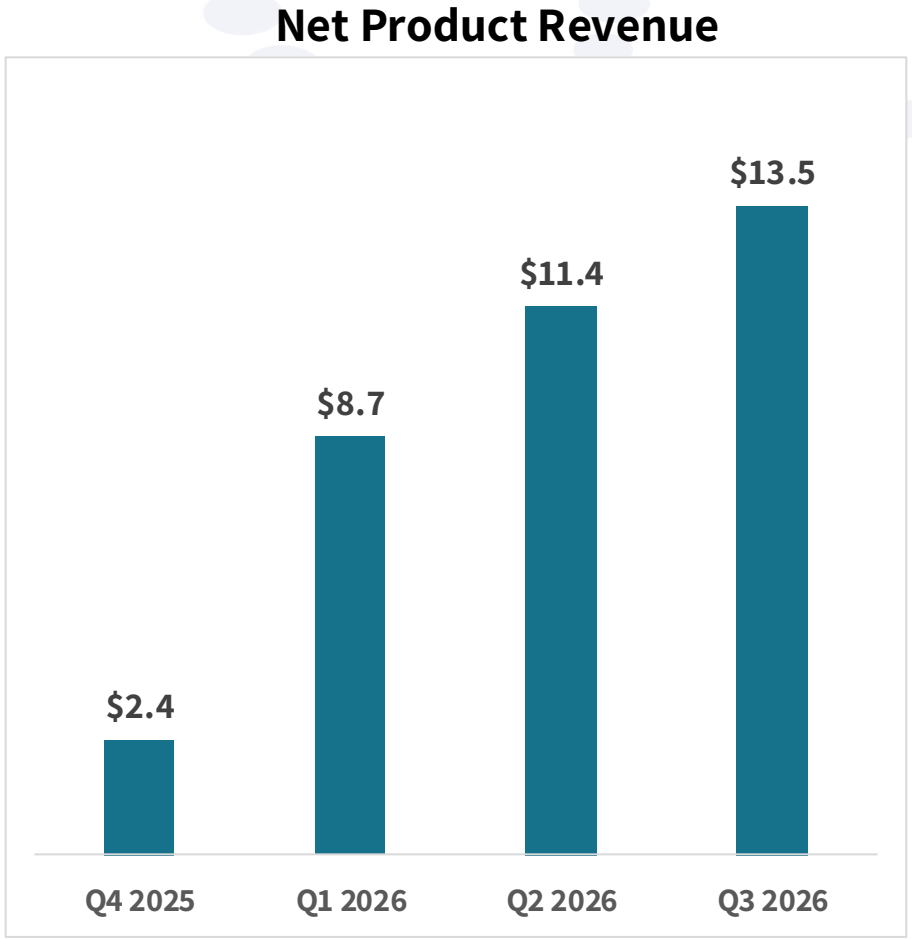
ZEVASKYN® Launch Progress: Q3 2026 Highlights

COMMERCIAL PROGRESS

- Q3 net ZEVASKYN revenue of $13.5 million, an 18% increase QoQ
- 6 patient treatments in Q3
- 15 commercial treatments completed since launch

QTC ACTIVATION & TREATMENT READINESS

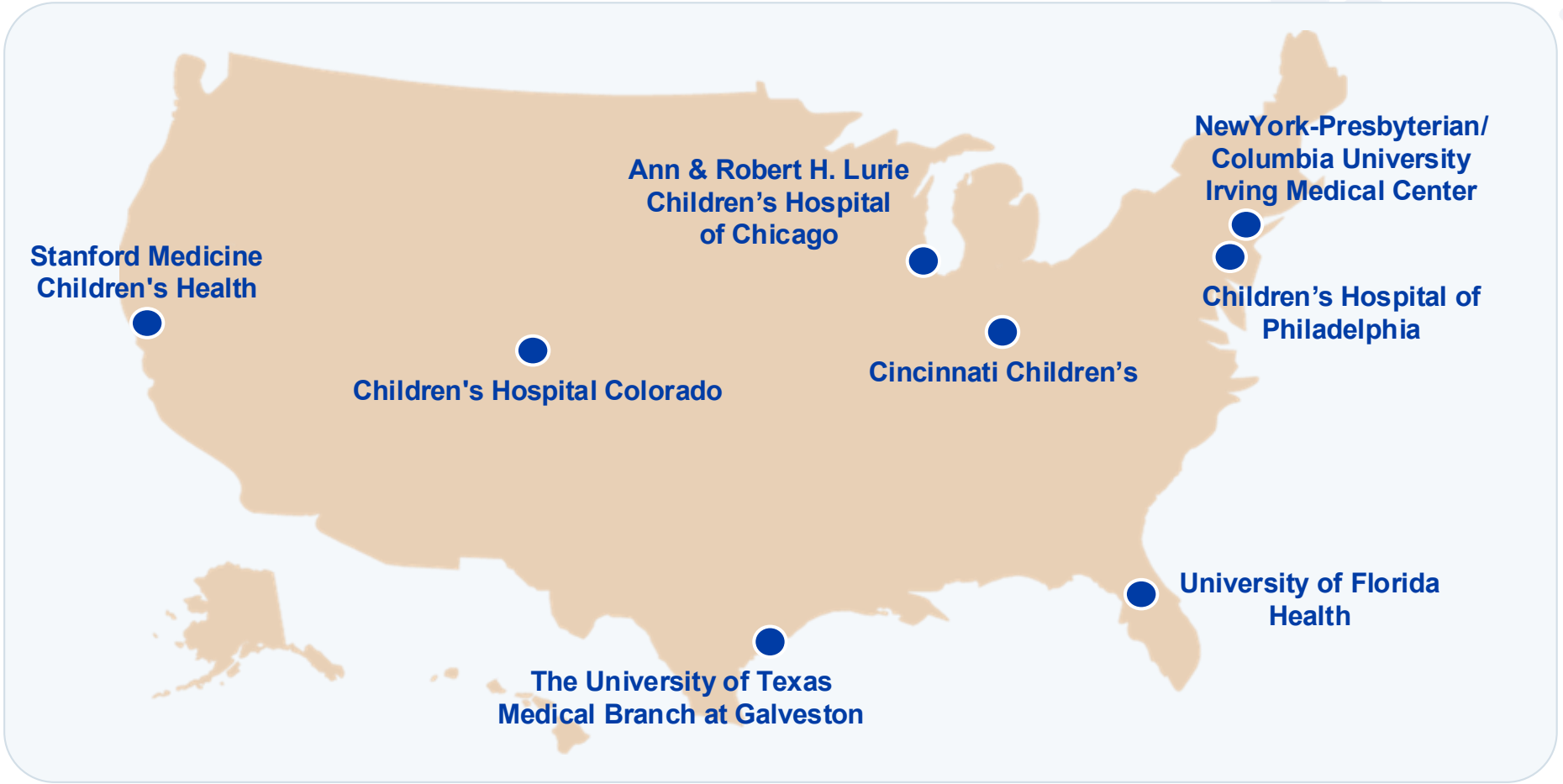
- CHOP and UTMB completed first treatments
- Cincinnati Children's and University of Florida Health added to the network
- 8 QTCs across the U.S.
- 4 QTCs with direct treatment experience



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ZEVASKYN QTC Network Enhances Patient Access

At every QTC, patients are advancing through approval process to receive ZEVASKYN



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ABO-801: An Orphan Drug with Compelling Strategic Rationale

A differentiated late-stage opportunity in a growing rare disease market

LATE-STAGE, PHASE 3 READY

Visible near-term catalysts

Positioned to begin a **new Phase 3 study**, with **topline data targeted in approx. two years** and potential **approval approx. one year later**.

ESTABLISHED CLINICAL FOUNDATION

Robust clinical data

Prior Phase 3 studies demonstrated **histologic and symptomatic activity**, providing a substantial body of evidence to **inform the next study**.

COMPELLING DIFFERENTIATION

Differentiated profile in EoE

Once-daily oral disintegrating tablet with **low systemic exposure** and evidence of **durable structural and symptomatic improvement.**

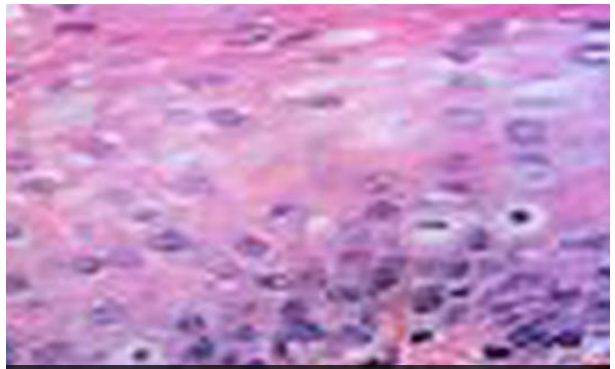
ATTRACTIVE COMMERCIAL UPSIDE

Revenue opportunity from 2030 onward

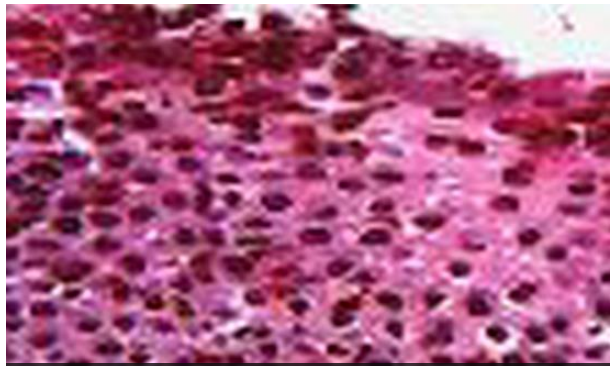
A growing disease market supports a potential peak annual **$750M+ opportunity** and an **additional durable high-margin revenue stream** beyond ZEVASKYN.

Phase 3 ready, ABO-801 offers differentiated EoE positioning, visible 2 to 3-year catalysts and attractive revenue potential from 2030 onward.

EoE is a Chronic, Lifelong Inflammatory Disease of the Esophagus with Few Approved Treatment Options



Normal Esophagus [2]



Esophagus with Eosinophilic Esophagitis [2]

Allergen (Unknown) Driven Disease

~360,000	~278,000 [1]	~40,000 [1]
Total patients diagnosed with EoE in US	Adults diagnosed with EoE in US	Teens diagnosed with EoE in US

Limited Treatment Options Exist for Chronic, Lifelong Disease

Symptomatic onset → PCP / ER / Allergist → Referral to gastroenterologist → Endoscopy and biopsy → **Lifelong management**

ACG GUIDELINE SUPPORT [3]	RECOMMENDATION
Elimination diet / dietary modification and PPI use	CONDITIONAL
Topical steroids	**STRONG**

Sources: Dellon ES. Gastroenterol Clin North Am. 2014;43(2):201-218; Navarro P, Arias A, Arias-Gonzalez L, et al. Aliment Pharmacol Ther. 2019;49(9):1116-1125; Xu X, et al. *Therapeutic Advances in Gastroenterology* (2025)

Notes:

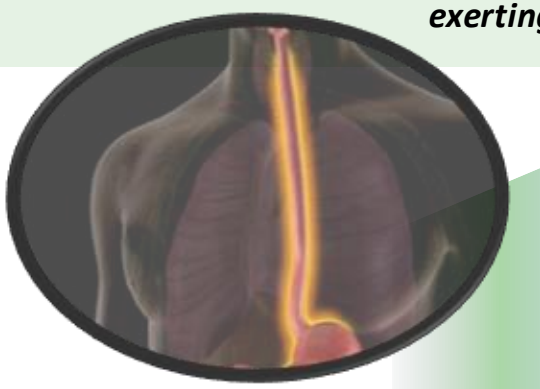
1. Age splits are derived using the incident-cohort age distribution
2. Histology images illustrative
3. ACG = American College of Gastroenterology; PPI = proton pump inhibitor. Quality of evidence and strength of recommendation per ACG guidelines using GRADE methodology

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ABO-801: Specifically Designed to Treat EoE

- FDA Orphan Drug Designation
- FDA Fast Track Designation
- IP protection through 2042

ABO-801 is a novel product candidate designed to be a once daily, orally disintegrating tablet to specifically deliver fluticasone propionate topically to the esophageal mucosa with negligible systemic absorption, exerting potent local anti-inflammatory effects to target and modify the EoE inflammatory cascade





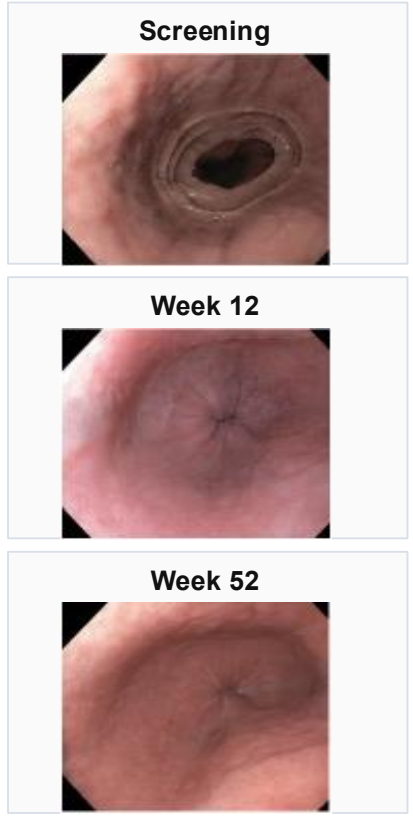
- **Maximizes fluticasone exposure locally** in the proximal and distal esophagus
- **Less than 1% systemic absorption**
- Dissolves on the tongue naturally **in < 30 seconds, without water**
- **No dyes or other excipients** that could cause allergic reactions

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ABO-801: ODT with a Differentiated Clinical Profile

- Administration
  - Once daily oral disintegrating tablet taken at bedtime
- Key Safety features in Phase 3
  - Systemic exposure of less than 1%
  - Adrenal Suppression 0%
- Efficacy Highlights in Phase 3
  - Eosinophils ≤6/hpf (Coprimary Endpoint) – 51%
  - Complete Responders (12 week) [2] 18% vs. 6%; p=0.004 (n=361 pooled)

Endoscopic Evidence of Meaningful and Durable Improvement [3]



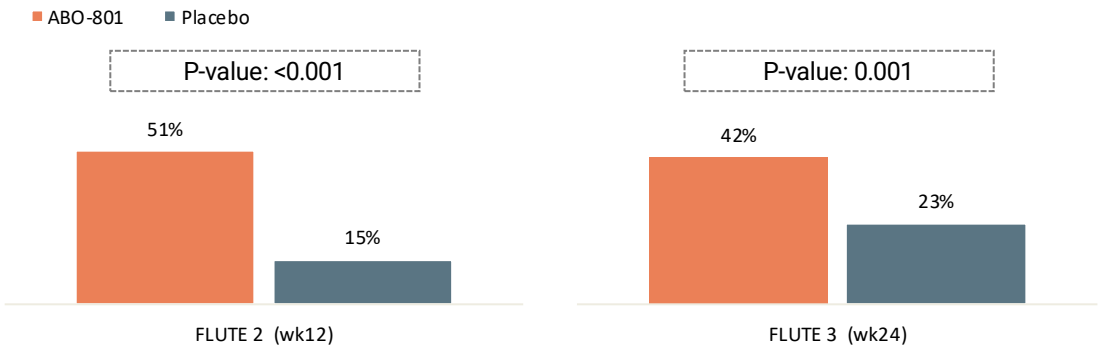
Notes:
1. All measures placebo adjusted, except complete responders where control and treatment arms are individually indicated
2. Defined as no dysphagia in 14 days week 10-12
3. Subject had complete resolution of symptoms and strictures observed at Week 12 and sustained through Week 52

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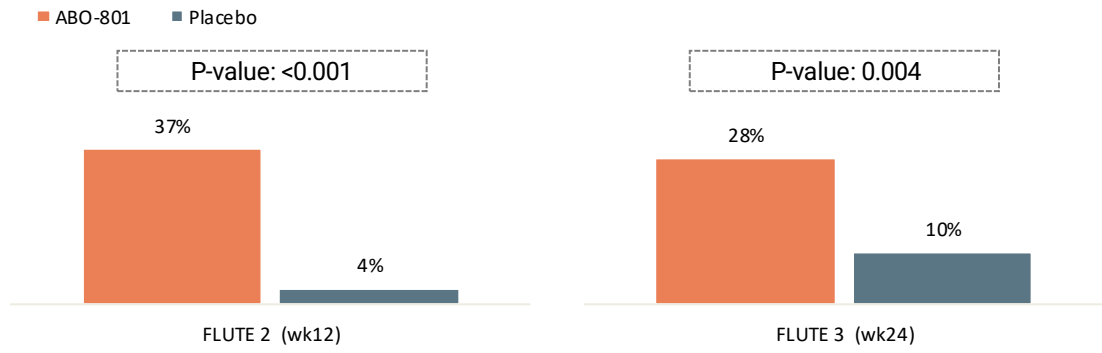
Robust EREFS Profile from Endoscopy

Treatment Arm Sample Size
FLUTE 2: ABO-801 (n=97) , placebo (n=46)
FLUTE 3: ABO-801 (n=108) , placebo (n=110)

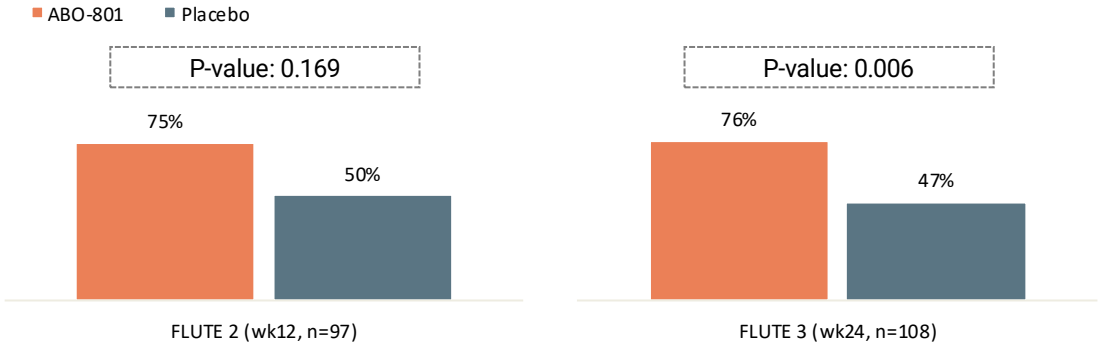
EREF Score Responders



EREF Inflammatory Responders



Grade 2+ Ring Improvement



Summary of EREFS results

- Statistically significant improvements across multiple endoscopy ("EREF" – Exudate Rings Edema Fibrosis) endpoints were seen in both trials. Endoscopy was performed at 12 and 24 weeks
- We believe that ABO-801 may be the only therapy, if approved, to show an improvement in esophageal rings [1]

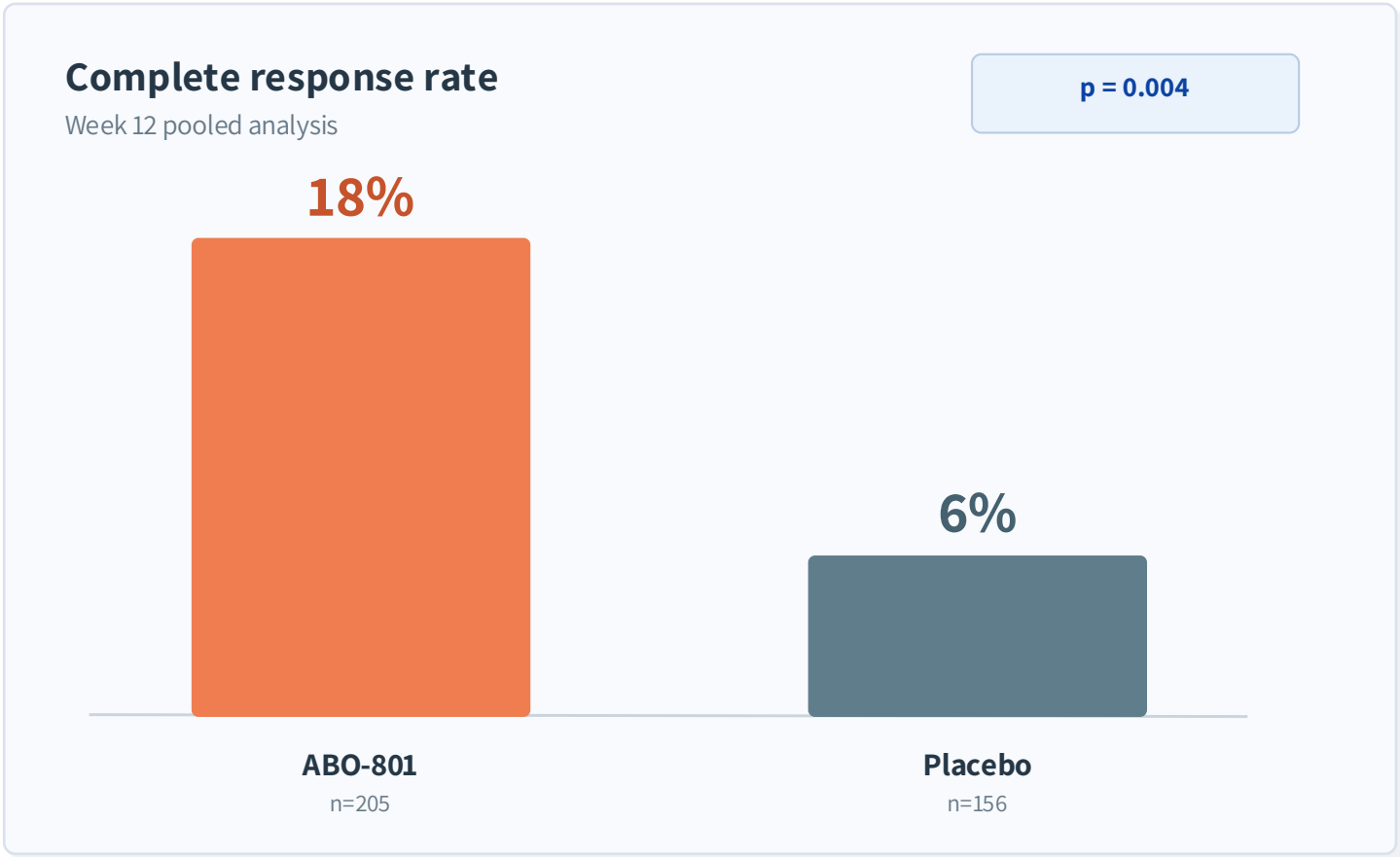
Notes:
1. Based on the Company's review of publicly available clinical data for approved and late-stage EoE therapies. No head-to-head studies have been conducted, and cross-trial comparisons are limited

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ABO-801: Pooled Week 12 Data for Complete Responders Show Strong Trends in Symptom Improvement (1)

COMPLETE RESPONDER ANALYSIS

Pooled FLUTE 2 + FLUTE 3 | Week 12 | n=361



- **Pooled data from FLUTE 2 and FLUTE 3**
- **Complete responders defined as no dysphagia in 14 days week 10-12**

Notes:
1. Differences exist between trial designs, patient characteristics and other factors, and caution should be exercised in drawing any conclusions from pooling data across unrelated trials or a comparison of data across studies as pooled data and cross-study comparisons are inherently limited and such data may not be directly comparable

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PRO Tools Differ in Their Ability to Reduce Subjectivity in Patient Response to Questionnaires

- DSQ (validated tool for FDA approvals to-date) & PROSE (used in ABO-801's prior Phase 3 trials)
  - DSQ simple and easy for patients to use
    - Focuses on **solid food only and on patient action** to relieve symptoms
    - DSQ was not available for use when FLUTE-2 and FLUTE-3 studies were designed and conducted.
  - PROSE complicated and difficult to use
    - Focuses on **all food types**; patients score their symptoms on a 0-10 scale without adequate guidance – creates subjectivity and data noise
- DSQ is now industry standard, available, familiar to FDA and used in approved products

Post-hoc data analysis* shows that DSQ if used in prior trials, resulted in high probability of meeting symptom endpoint

Notes:
DSQ was not available for use when the FLUTE-2 and FLUTE-3 studies were designed and conducted.
* Additional information is available in a separate presentation furnished as an exhibit to a Current Report on Form 8K filed with the SEC on November 9, 2026.

Mapping DSQ Endpoint to PROSE NRS for Difficulty Swallowing

DSQ Questionnaire			PROSE Difficulty Swallowing
Question	**DSQ Response**	**DSQ Score**	**NRS Response (0 – 10)**
1. Since you woke up this morning, did you eat solid food?	Yes – go to Q2	Not scored	Not asked in PROSE
2. Since you woke up this morning, has food gone down slowly or been stuck in your throat?	No	**0**	**0**
If Yes to Q2, then **3. For the most difficult time you had swallowing food today (during the past 24 hours), did you have to do anything to make the food go down or to get relief?**	No, it got better or cleared up on its own	**0**	**At or Below Threshold (1, 2, or 3)**
	Yes, I had to drink liquid to get relief	1	**Above Threshold**
	Yes, I had to cough and/or gag to get relief	2	
	Yes, I had to vomit to get relief	3	
	Yes, I had to seek medical attention to get relief	4	

Illustrative FLUTE-3 PROSE-to-DSQ Mapping Highlights Potential Statistically Significant Symptom-Based Endpoint

Threshold Selection of the PROSE NRS for Difficulty Swallowing to the DSQ Endpoint

Placebo Responder Rates		
NRS ≤1	NRS ≤2	NRS ≤3
9.8%	20.6%	36.3%

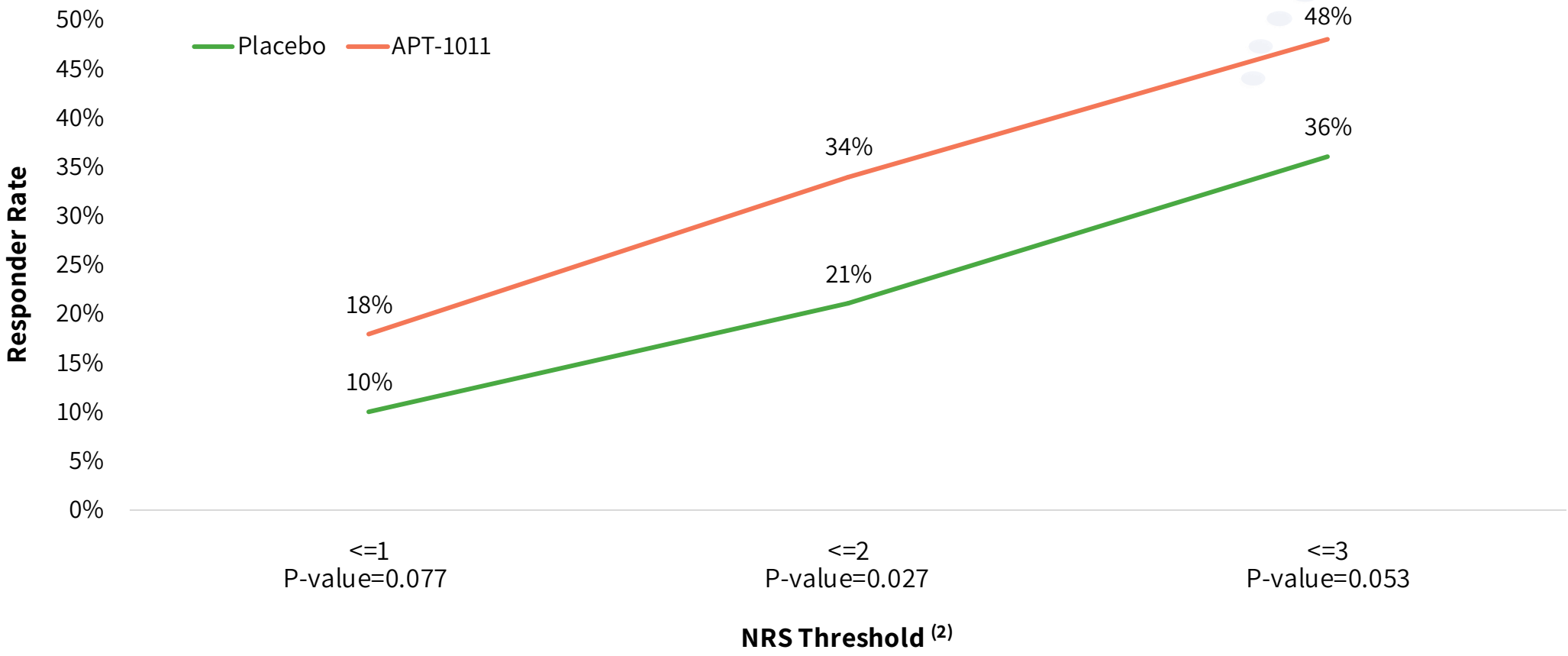
FLUTE-3 Responder Exploratory Analysis Results Using Mapping of PROSE to DSQ

Response Rate for PROSE NRS Difficulty Swallowing ≤2		
APT-1011	Placebo	p-value
33.7%	20.6%	0.027

NRS ≤2 threshold yields a placebo responder rate similar to Eohilia placebo DSQ result (18.1%). Evaluating FLUTE-3 (Total Population) data by difficulty for swallowing NRS≤2 threshold resulted in a significant symptom-based coprimary endpoint

Robustness Analysis of Responder Rates at Various Thresholds – All Subjects [1]

Sample Size: Placebo = 110, APT-1011 = 108



Notes:

1. Responder rate refers to the % of patients whose worst daily difficulty-swallowing score on the Numeric Rating Scale (NRS) was at or below the specified threshold on all 14 assessment days

2. Numeric Rating Scale (NRS) is a 0-10 patient-reported scale measuring difficulty swallowing; patients rated their worst daily difficulty swallowing on 0-10

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Q&A