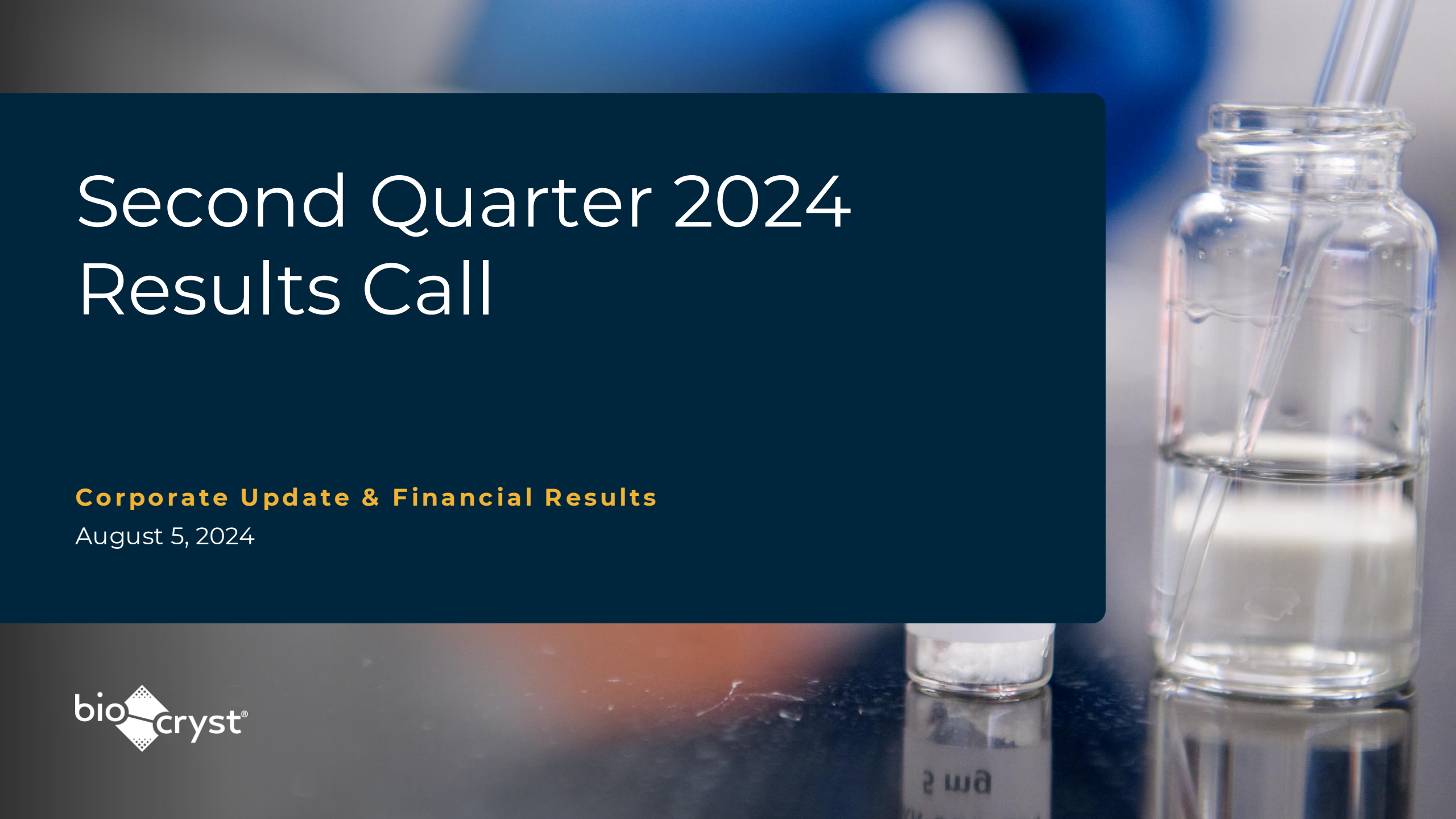
Second Quarter 2024 Results Call

Corporate Update & Financial Results

August 5, 2024



Forward-looking statements

BioCryst's presentation contains forward-looking statements, including statements regarding future results, unaudited and forward-looking financial information and company performance or achievements. These statements are subject to known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements expressed or implied in this presentation. These statements reflect our current views with respect to future events and are based on assumptions and are subject to risks and uncertainties.

You should not place undue reliance on the forward-looking statements. For additional information, including important risk factors, please refer to BioCryst's documents filed with the SEC and located at ir.biocryst.com/financial-information/sec-filings.

AGENDA

Corporate update	**Jon Stonehouse** President and Chief Executive Officer
ORLADEYO® update	**Charlie Gayer** Chief Commercial Officer
Financial update	**Anthony Doyle** Chief Financial Officer
Q&A	

EFFICACY ~~OR~~ AND ADMINISTRATION

Help your patients live without compromise.

ORLADEYO® is the only targeted preventative therapy for **hereditary angioedema (HAE)** to combine attack prevention AND oral administration.

Capsule not actual size

orladeyo®
(berotralstat) capsules 150 mg

Rob,
an ORLADEYO patient

Information for people living with hereditary angioedema (HAE)

HAE attack prevention should be

EFFECTIVE AND ~~OR~~ CONVENIENT

You deserve "AND" with ORLADEYO®

ORLADEYO is the only targeted preventative therapy for HAE to combine proven attack prevention **AND** convenient oral administration.

Kharri, taking ORLADEYO since 2020

Capsule not actual size

WHAT IS ORLADEYO® (berotralstat)?

ORLADEYO (or-luh-DAY-oh) is a prescription medicine used to prevent attacks of hereditary angioedema (HAE) in adults and children 12 years of age and older. It is not known if ORLADEYO is safe and effective in children under 12 years of age.

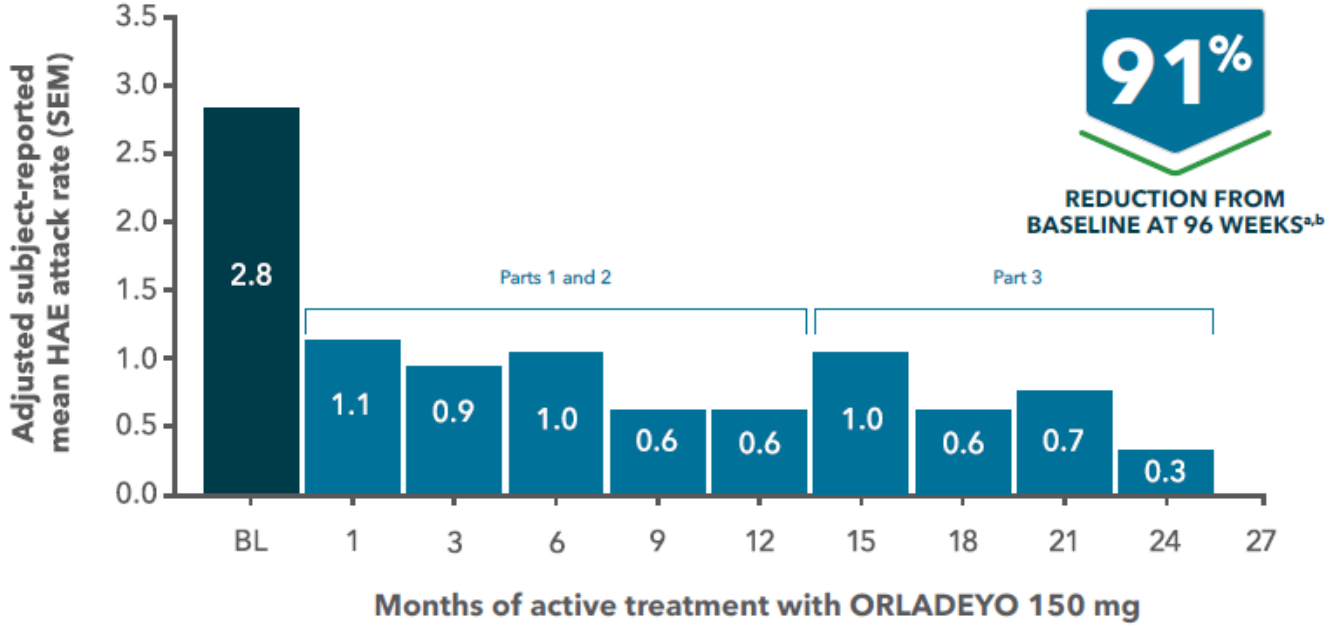
It is not known if ORLADEYO is safe and effective to treat an acute HAE attack, therefore ORLADEYO should not be used to treat an acute HAE attack.

Do not take more than one capsule of ORLADEYO per day because extra doses can cause heart rhythm problems.

Please see Important Safety Information on page 13 and accompanying full Prescribing Information, including the Patient Information.

orladeyo® (berotralstat) capsules 150 mg

ORLADEYO demonstrated long-lasting effectiveness through 96 weeks of treatment



Abbreviation: BL, baseline.

[a]Due to study design, investigator-confirmed attack rates were reported only during the first 48 weeks, while patient-reported attack rates were reported during weeks 49 to 96. For consistency across the entire 96 weeks, only patient-reported attack rates are reported. For analysis purposes, 1 month was defined as 4 weeks of treatment.[10]

[b]Adjusted patient-reported attack rates were defined as the total number of adjusted patient-reported HAE attacks experienced in a period, adjusted for the length of a month (defined as 28 days) and the number of days during that period.[10]

SELECT IMPORTANT SAFETY INFORMATION

Berotralstat is a substrate of P-glycoprotein (P-gp) and breast cancer resistance protein. P-gp inducers (eg, rifampin, St. John's wort) may decrease berotralstat plasma concentration, leading to reduced efficacy of ORLADEYO. The use of P-gp inducers is not recommended with ORLADEYO.

Source: Kiani-Alikhan et al. J Allergy Clin Immunol Pract. 2024;12(3):733-743.e10.

GI adverse events typically resolve quickly

APeX-2 part 1 (0-24 weeks)

The most common[a] treatment-emergent adverse reactions were abdominal pain, vomiting, diarrhea, back pain, and GERD in APeX-2 part 1

Adverse reactions	Placebo (n=39)	ORLADEYO 110 mg (n=41)	ORLADEYO 150 mg (n=40)
	n (%)		
Abdominal pain[b]	4 (10)	4 (10)	9 (23)
Vomiting	1 (3)	4 (10)	6 (15)
Diarrhea[c]	0	4 (10)	6 (15)
Back pain	1 (3)	1 (2)	4 (10)
GERD	0	4 (10)	2 (5)

- No patients in the ORLADEYO 150 mg dose group and 1 patient in the ORLADEYO 110 mg dose group discontinued treatment due to a GI adverse reaction

APeX-2 part 3 (48-96 weeks)

- No new safety signals were seen in patients who continued ORLADEYO for 96 weeks
- In APeX-2 part 3 (n=81), the most common TEAEs were nasopharyngitis, urinary tract infection, abdominal pain, arthralgia, coronavirus infection, and diarrhea
- One patient treated with ORLADEYO 150 mg discontinued treatment due to a GI abdominal adverse reaction

GI adverse reactions generally occurred early after initiation of treatment, became less frequent with time, and typically self-resolved

Most GI TEAEs resolved within 1 week

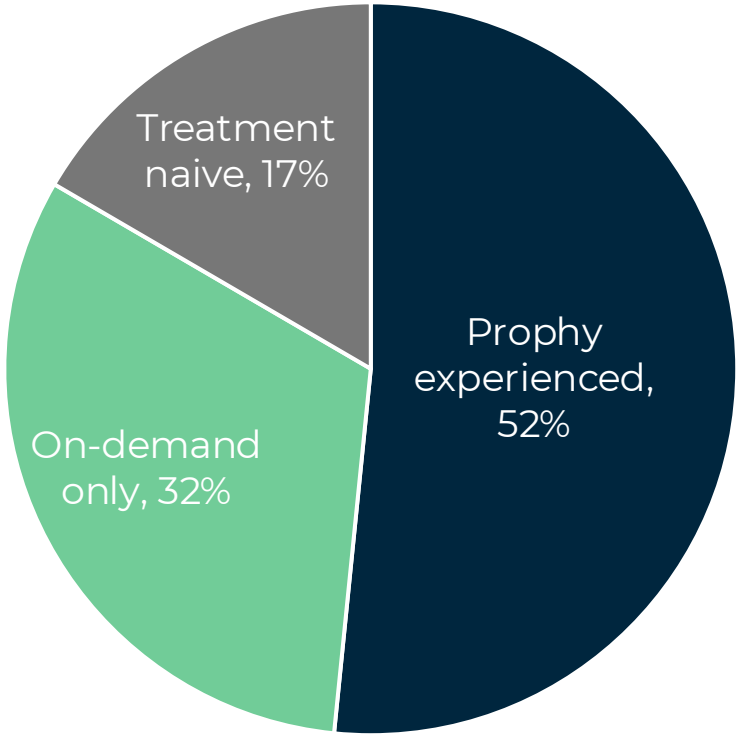
APeX-2 part 1 (0-24 weeks)

Among 43 total GI abdominal TEAEs observed in the ORLADEYO® 150 mg group:

- 20/40 patients experienced at least 1 GI abdominal TEAE
- If GI reactions persist, a reduced dosage of 110 mg once daily with food may be considered

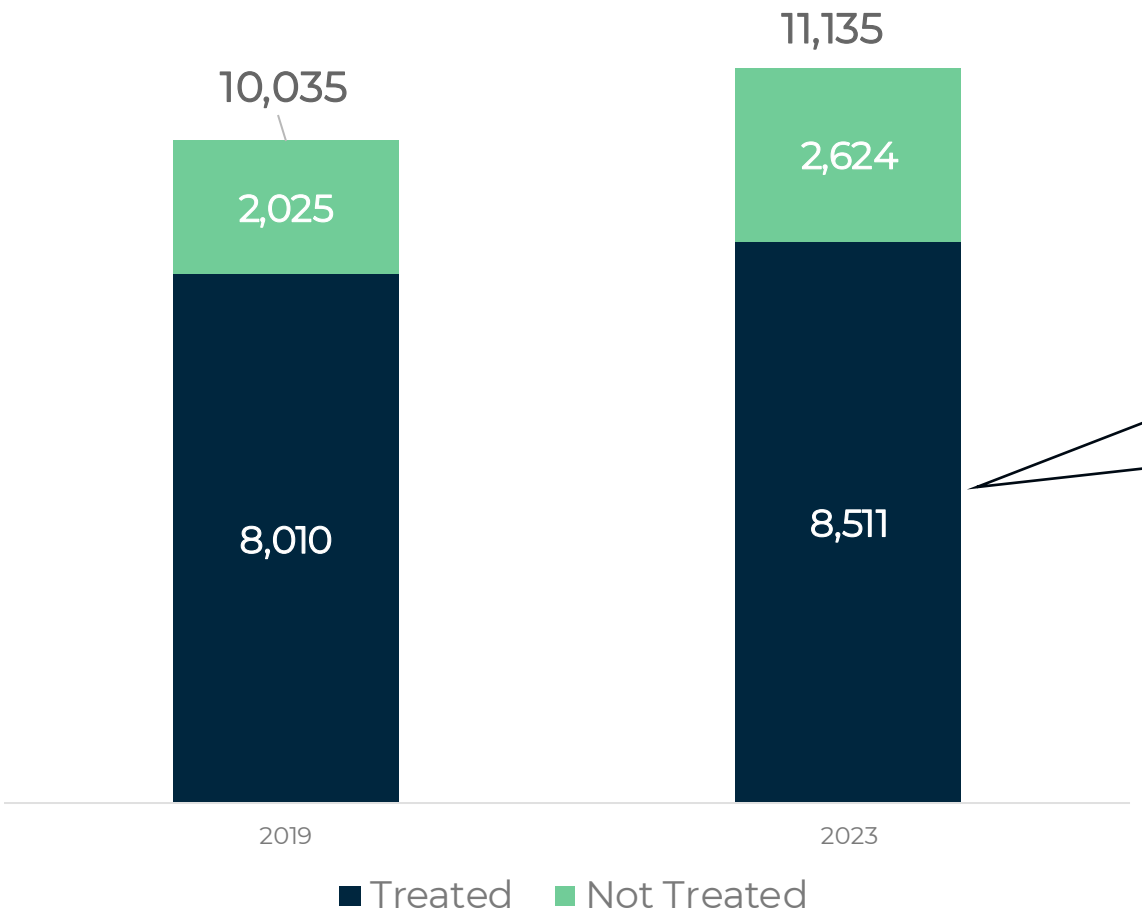
Source: ORLADEYO prescribing information; Kiani-Alikhan et al. J Allergy Clin Immunol Pract. 2024;12(3):733-743.e10.; Data on file, BioCryst Pharmaceuticals Inc.

Over 50% of patients trying ORLADEYO launch-to-date had prior experience on another prophy therapy



Source: Specialty Pharmacy patient-reported data through June 3, 2024, supplemented with 2015-2024 administrative claims data.

The HAE market of diagnosed and treated patients continues to grow



Between 2019 and 2023:

- Over 1,000 more diagnosed patients
- Over 500 more patients treated for HAE

Source: 2018-2023 administrative claims data

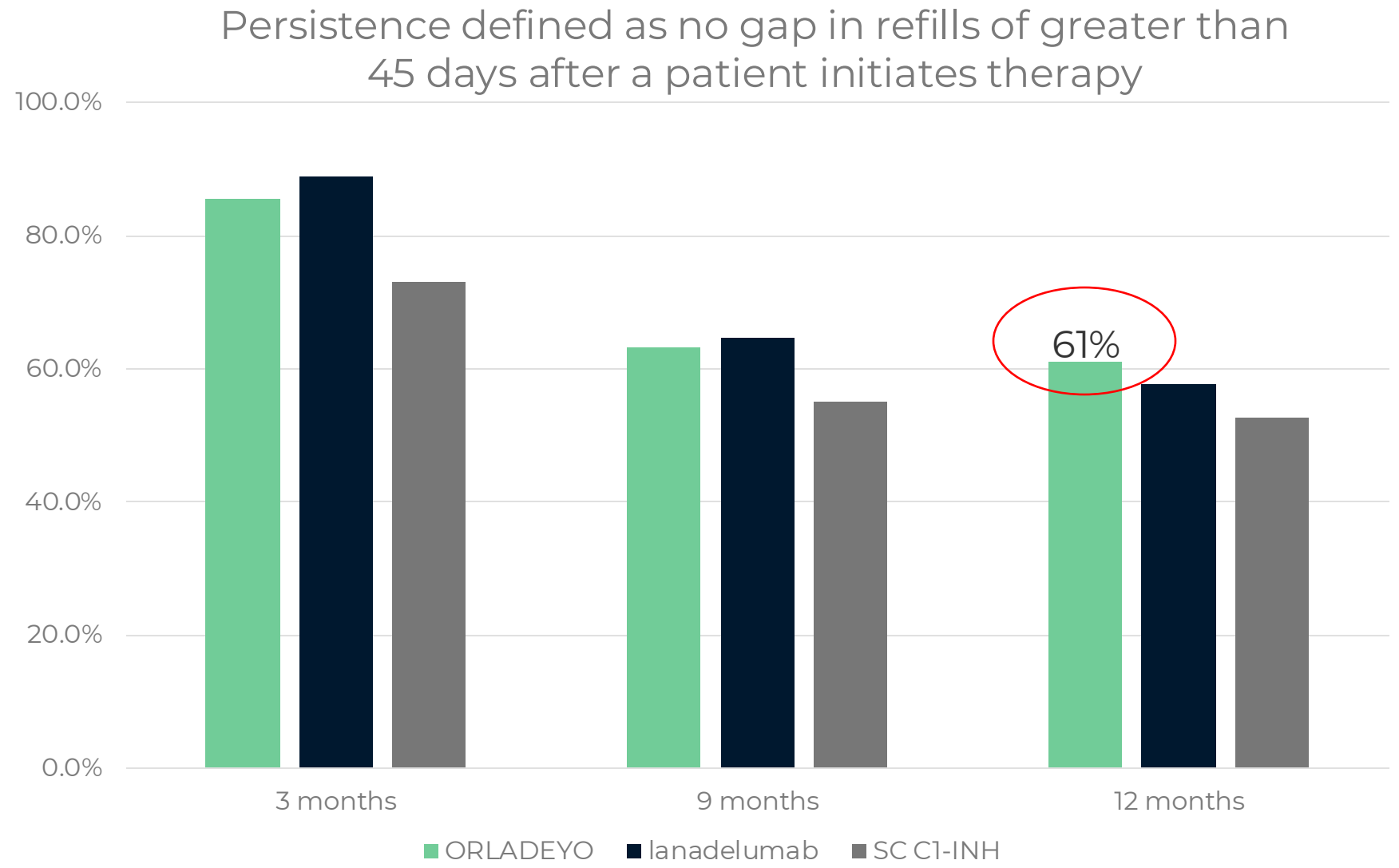
Patient retention is high launch-to-date, regardless of prior therapy

	3rd ship	6th ship	12th ship
Prior prophy	91%	77%	61%*
Prophy naive	91%	80%	67%

*63% of patients switching from lanadelumab remain on ORLADEYO for at least 12 monthly shipments, including those reporting zero attacks at baseline

Source: Specialty pharmacy data through June 28, 2024, excluding clinical trial patients; Limited to patients reaching Paid shipment

Claims data show ORLADEYO 12-months persistence of 61% is not different from other LTP products

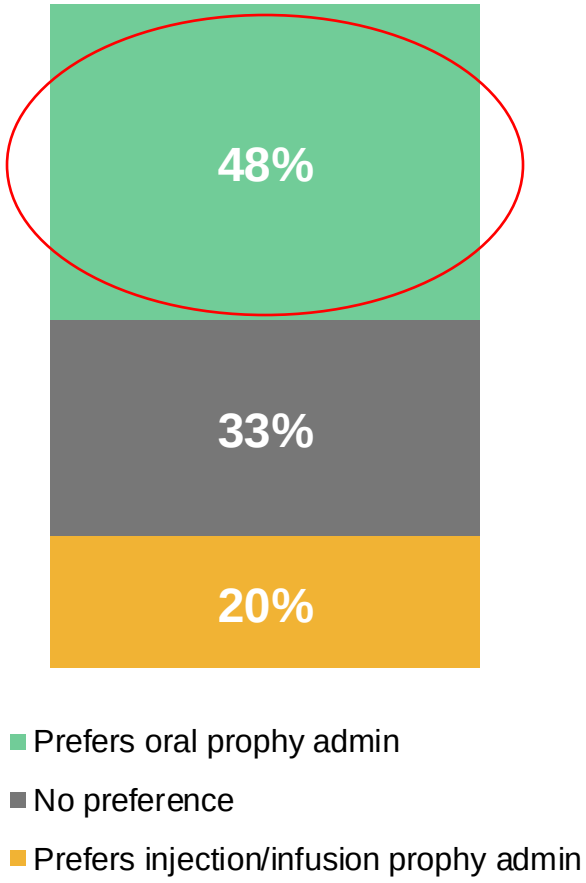


Source: Preliminary analysis of Veradigm LTP claims comparative study, May 2024
SC= subcutaneous

MARKET RESEARCH: 1 in 2 injectable prophy users prefers oral ROA, 3 in 4 are willing to switch

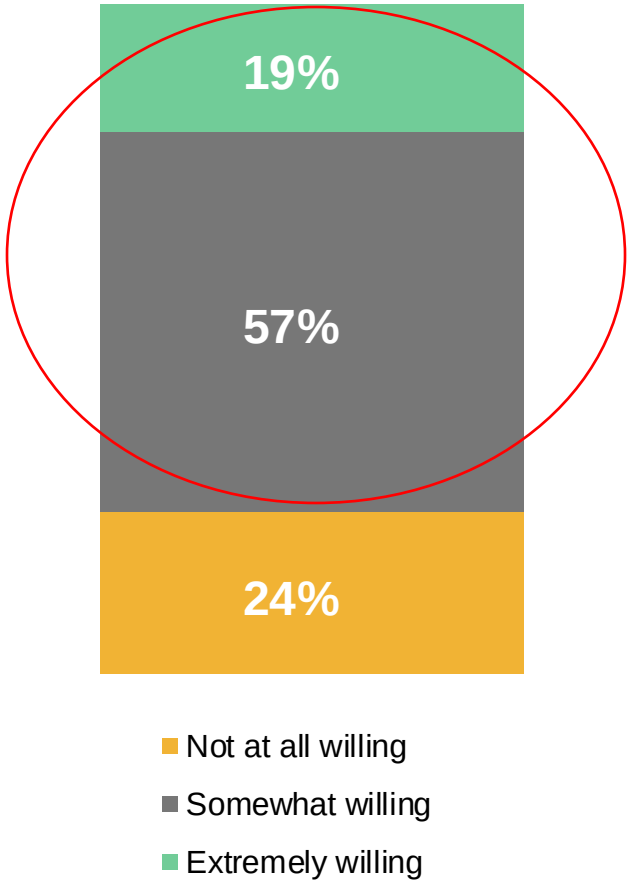
PREFERENCE AMONG CURRENT INJECTABLE PROPHY USERS

(n=120)



WILLINGNESS TO SWITCH HAE LTP AMONG CURRENT INJECTABLE PROPHY USERS

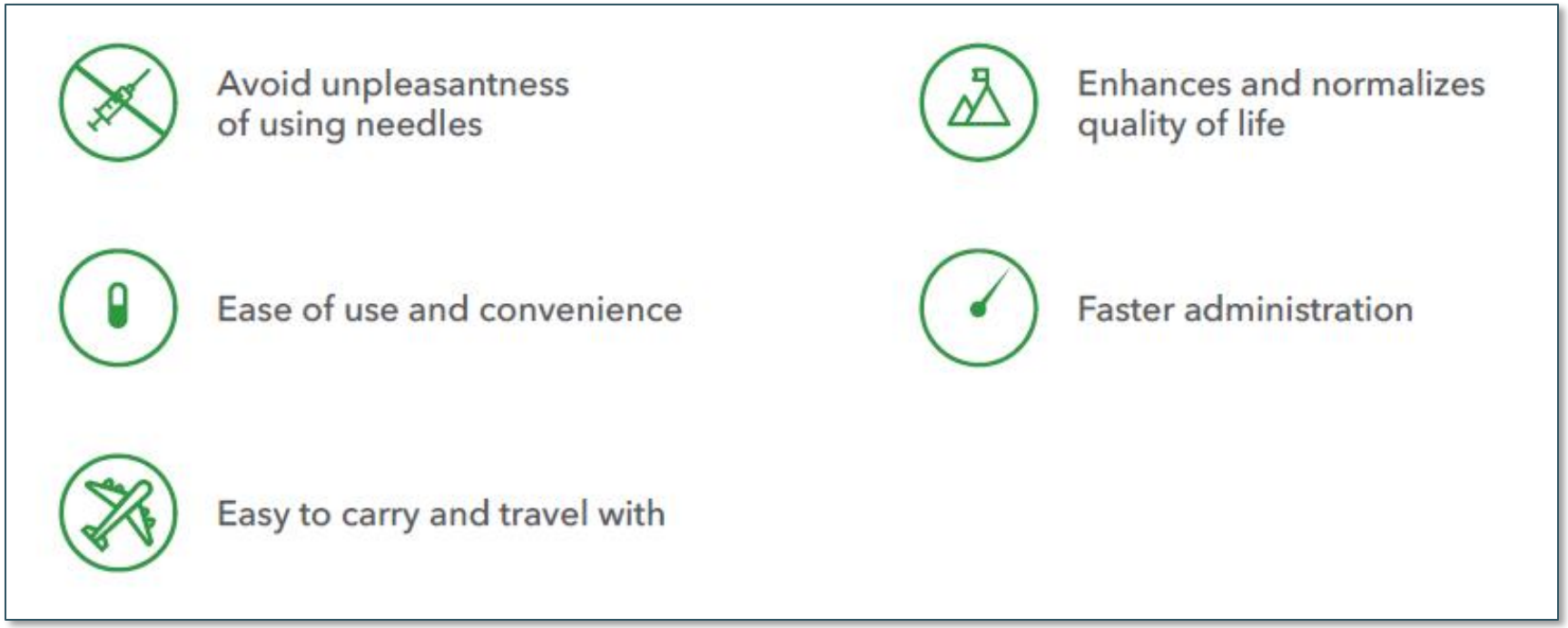
(n=120)



Source: BioCryst Internal Market Research Study (Conducted Oct 2023)

ROA = route of administration
LTP = long-term prophylaxis

Top reasons patients prefer oral prophylaxis

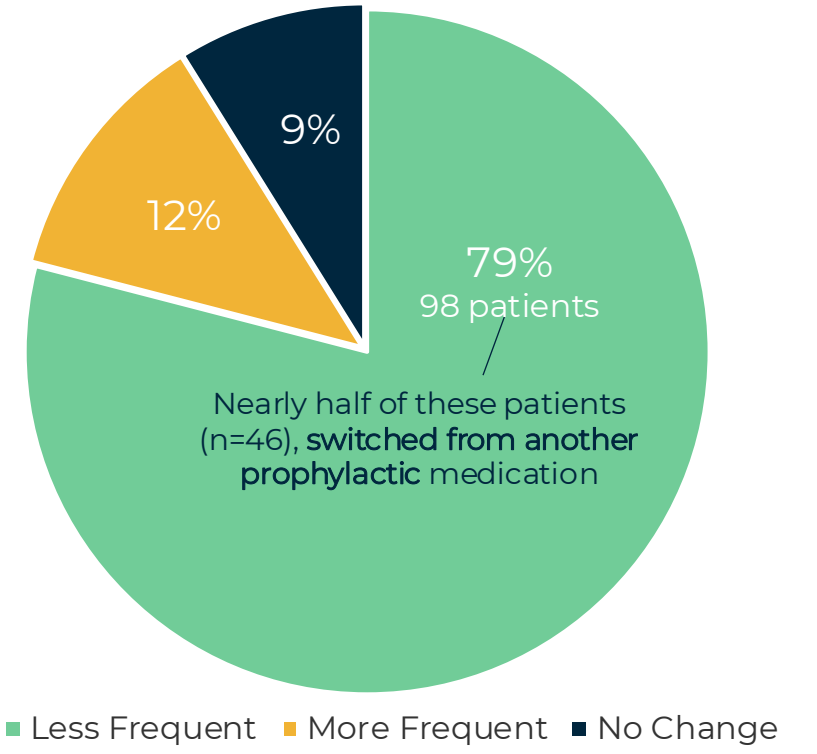


Source: Data on file, BioCryst Pharmaceuticals Inc.

MARKET RESEARCH: 4 out of 5 patients report having fewer attacks after starting ORLADEYO and 3 out of 4 report less severe attacks

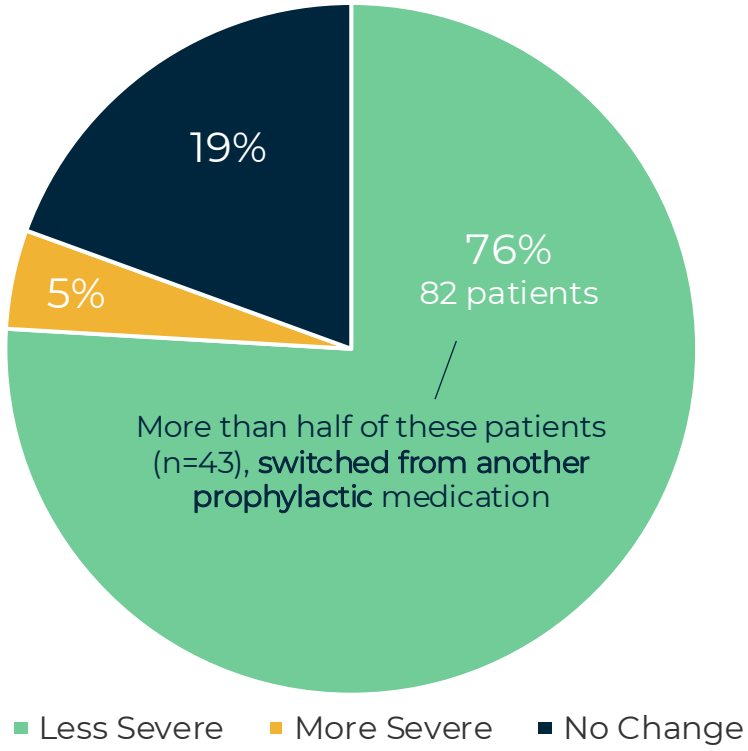
HAE ATTACK FREQUENCY ON ORLADEYO

All Respondents (n=124)



HAE ATTACK SEVERITY ON ORLADEYO

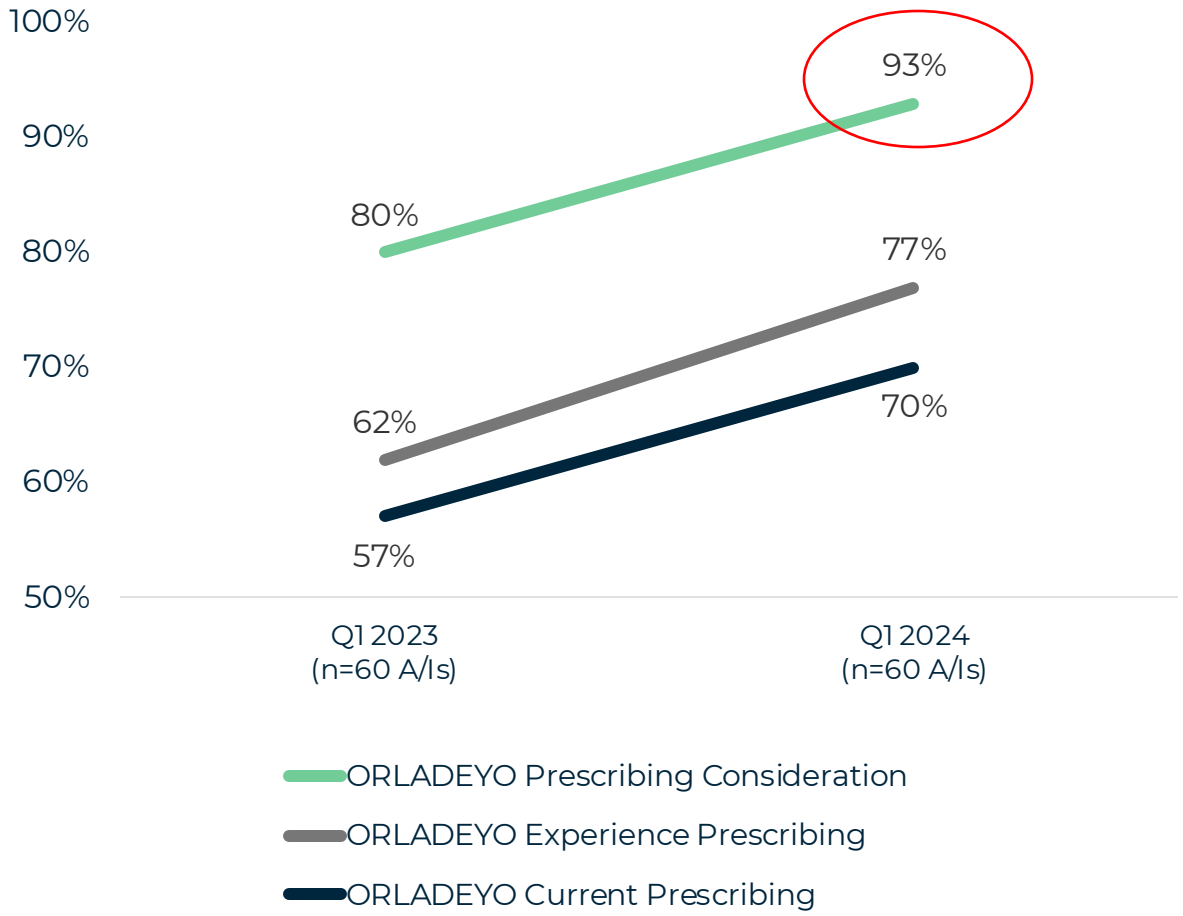
All Respondents (n=108)



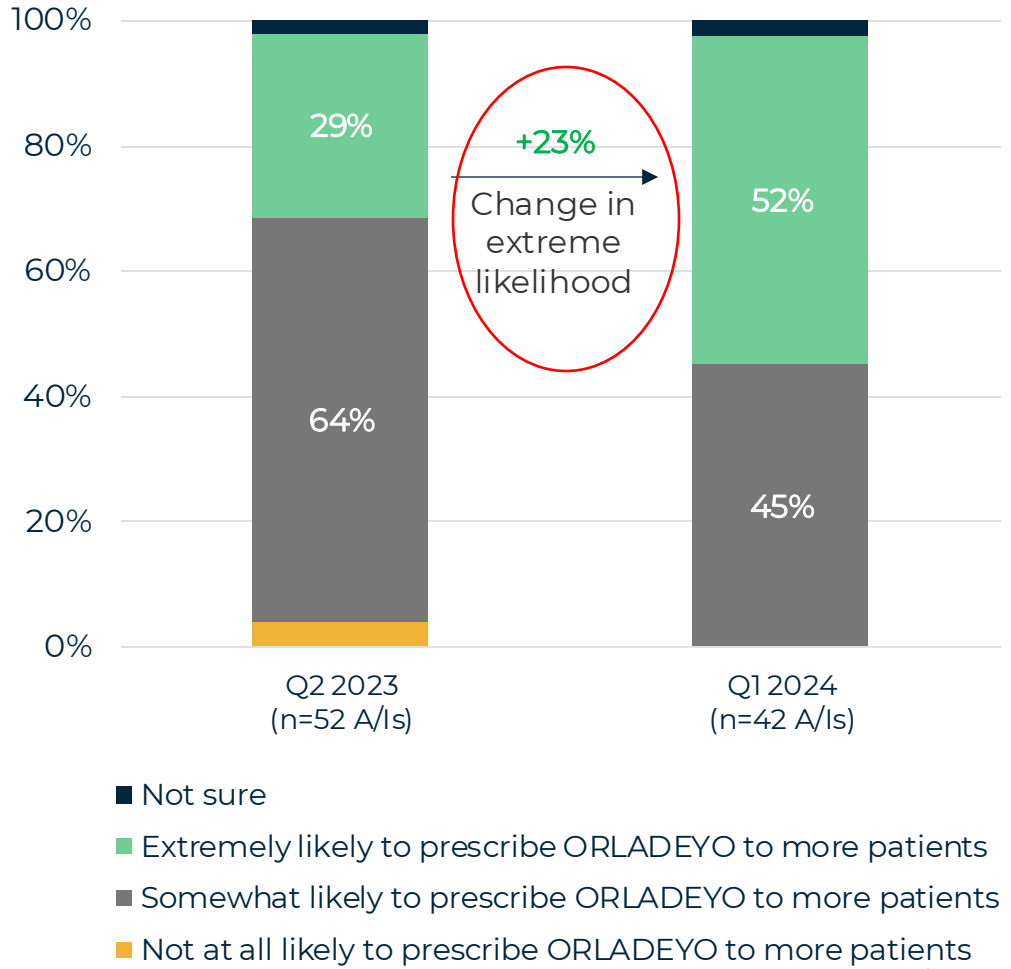
Source: BioCryst Internal Market Research Studies (Conducted Jan 2023, Apr 2024)

MARKET RESEARCH: Allergist/Immunologist intent to prescribe has increased strongly since the first half of 2023

ORLADEYO PRESCRIBING METRICS



LIKELIHOOD TO PRESCRIBE ORLADEYO TO MORE PATIENTS

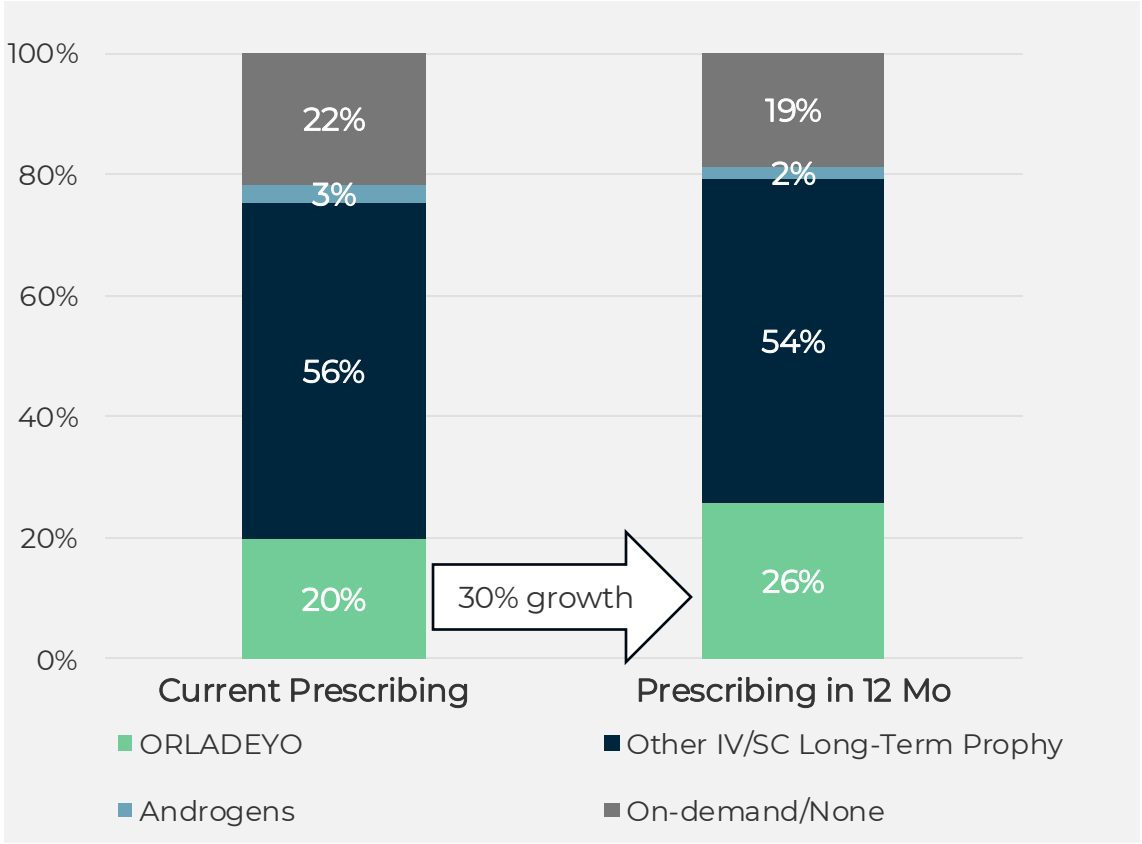


Source: BioCryst Internal Market Research Studies (Conducted Feb-Mar 2023, May 2023, Feb 2024)

MARKET RESEARCH: Intent to prescribe more ORLADEYO remains consistent, with prescriptions coming mostly from prophylactic switches

ALLERGIST-IMMUNOLOGISTS (A/IS) PRESCRIBING - 2023

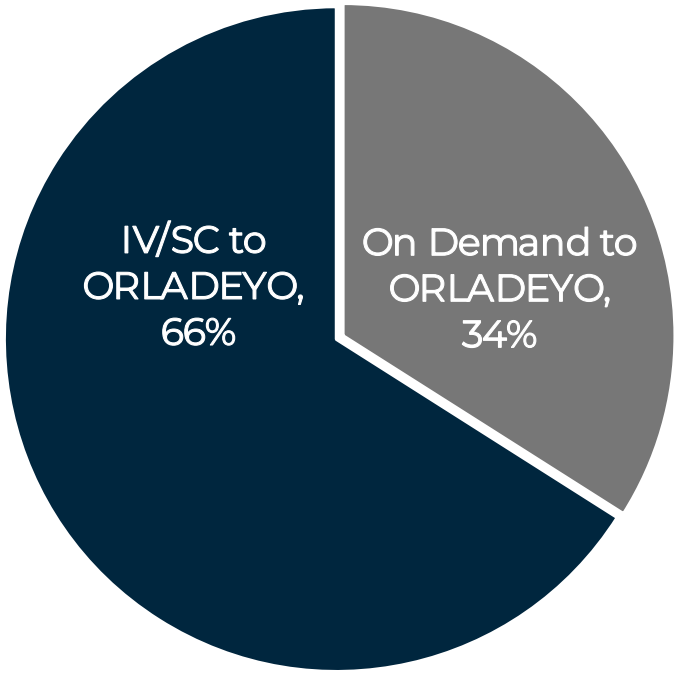
(n=154 unique A/Is managing ~1,300 HAE patients)



Future **ORLADEYO** prescribing has been <u>consistent throughout all of 2022-23</u>

SOURCE OF FUTURE NEW ORLADEYO PRESCRIPTIONS - 2024

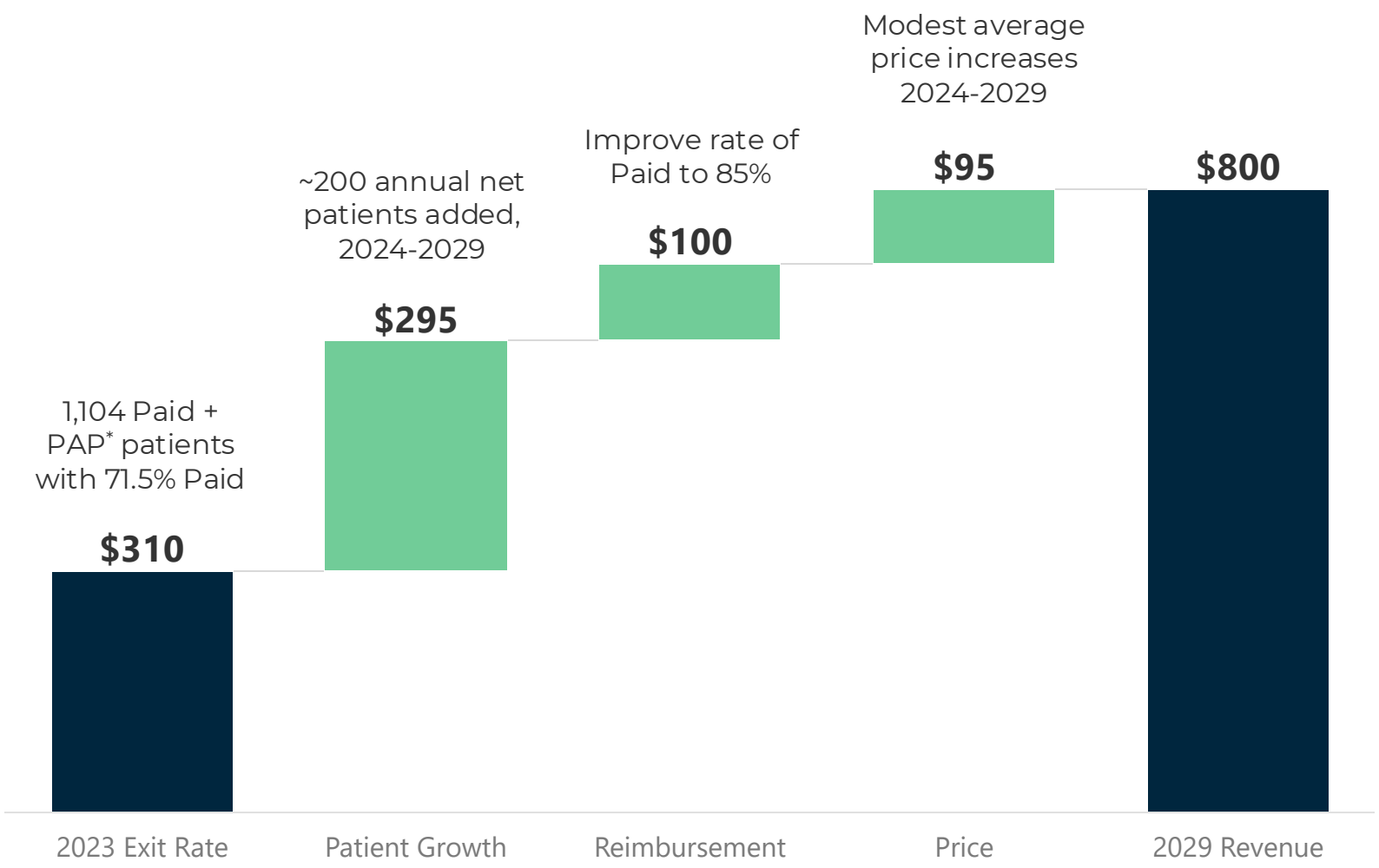
(n=154 unique A/Is managing ~1,300 HAE patients)



A/Is expect future new ORLADEYO prescriptions to come ~**2/3 from prophylaxis switches** and ~**1/3 from On-Demand Only**

Source: BioCryst Internal Market Research Studies (Conducted Feb 2023, May 2023, Sep 2023, and Dec 2023)

Path to $800M US revenue in 2029

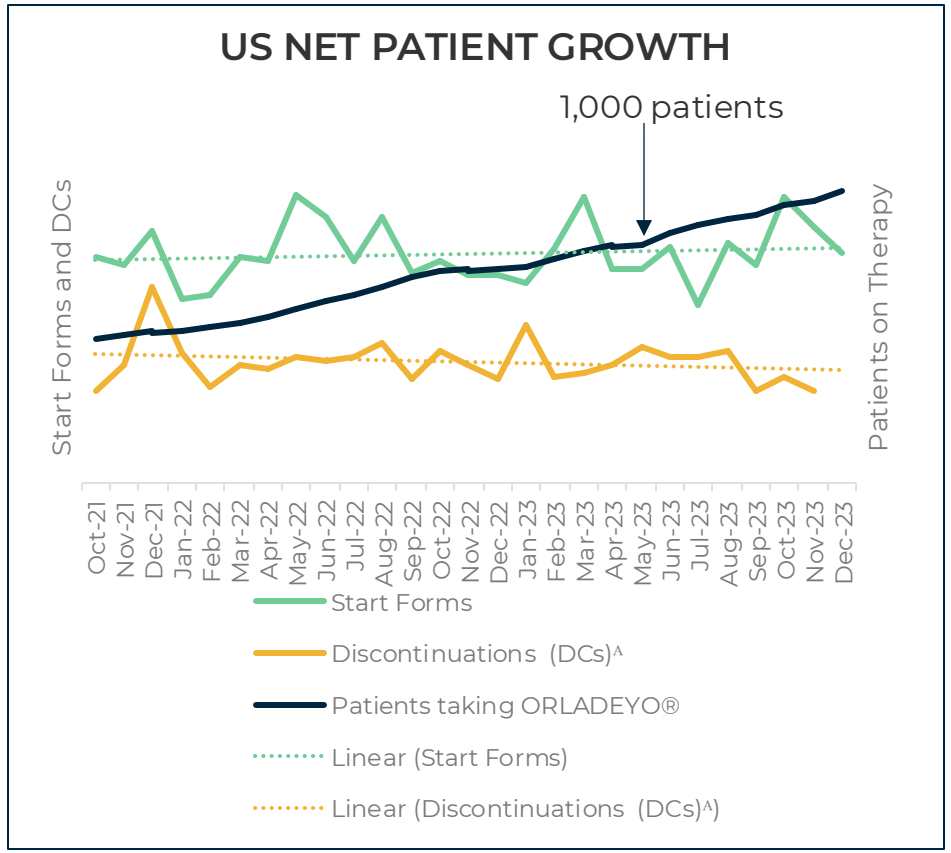


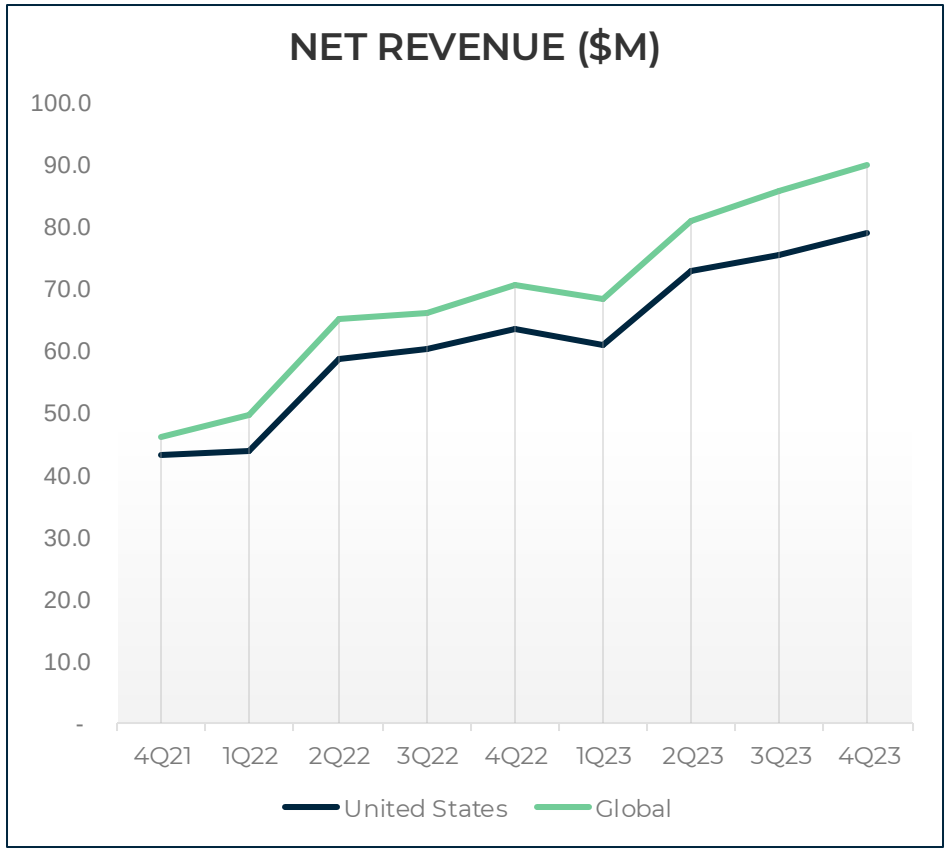
ASSUMPTIONS

- 15-20% gross-to-net on Paid shipments
- Compliance in low-90s%

* PAP is the company's long-term patient assistance program

Revenue $326M through 2023 (third year) and growing





A – Discontinuations are dated to 30 days after the last shipment of ORLADEYO® to a patient.

Our pipeline

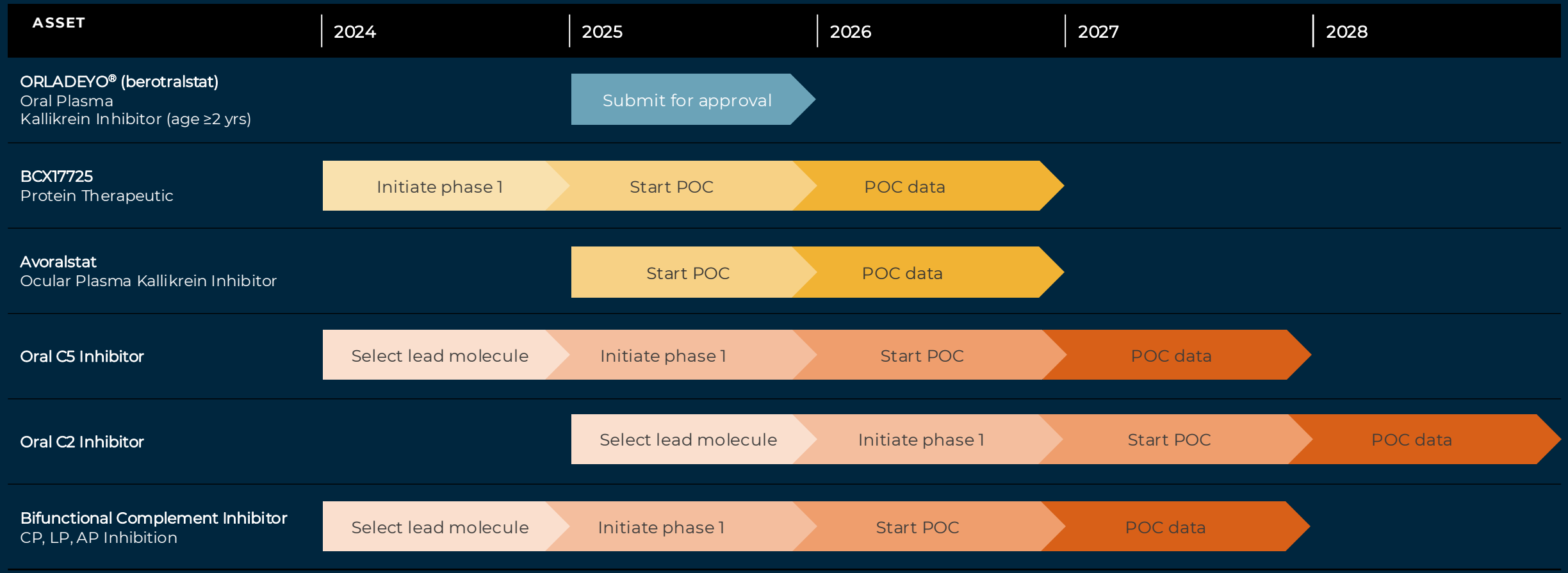
ASSET	PROGRAM	LEAD OPTIMIZATION	PRE-CLINICAL	PROOF OF CONCEPT†	PIVOTAL‡	APPROVED / COMMERCIAL
ORLADEYO® (berotralstat) Oral Plasma Kallikrein Inhibitor	Hereditary Angioedema (HAE)					
ORLADEYO® (berotralstat) Oral Plasma Kallikrein Inhibitor (age ≥2 years)	Hereditary Angioedema (HAE)					
BCX17725 Protein Therapeutic	Netherton Syndrome					
Avoralstat Ocular Plasma Kallikrein Inhibitor	Diabetic Macular Edema (DME)					
Oral C5 Inhibitor	Complement-Mediated Diseases					
Oral C2 Inhibitor	Complement-Mediated Diseases					
Bifunctional Complement Inhibitor	Complement-Mediated Diseases					

**ORLADEYO (age ≥ 2 years), BCX17725, and avoralstat are investigational and have not been deemed safe and effective by the FDA.*

†Proof of Concept is typically Phase 1 or 2.

‡Pivotal is typically Phase 3.

Program milestones



AP, alternative pathway; C2, complement component 2; C5, complement component 5; CP, classical pathway; LP, lectin pathway; POC, proof of concept

Uniquely positioned to create sustainable value

Company does not intend to raise any additional funds, including not drawing the additional $150M in debt available from Pharmakon

*Not including non-cash stock compensation expense

Finance summary

(FIGURES IN MILLIONS)

Q2 2024 CASH POSITION	
Cash, cash equivalents, restricted cash & investments at December 31, 2023	$391
Cash, cash equivalents, restricted cash & investments at March 31, 2024	$338
Cash, cash equivalents, restricted cash & investments at June 30, 2024	$338
Senior credit facility[A]	$324

2024 FY GUIDANCE	
ORLADEYO revenue	$420-435
Operating expenses (excluding non-cash comp)	$365-375

A – From Pharmakon Advisors, $300M drawn at issuance in Q2 2023. The $324M balance above represents $300M initial issuance plus PIK interest to-date (eligible to PIK 50% per quarter for first six quarters).

Traditional debt and royalty breakdown

	June 30, 2024	December 31, 2023
Royalty financing obligations - current	28,974	23,565
Royalty financing obligations - long-term	494,659	508,034
Total royalty financing obligations	523,633	531 ,599
Secured term loan	31 3,822	303,231

	Traditional Debt	Commercial Royalty
Initial amount	$300M term loan	$425M royalty upfronts
Partner(s)	Pharmakon (2023)	RP (2020, 2021) [A] OMERS (2021) [A]
Description	• Rate: 3 mo. SOFR +7.00% (With PIK option: +7.25%) • Maturity: April 2028 bullet • Financial covenants: None • PIK option: 50% of interest for first six quarters	• Non-recourse (payments funded with revenues) • Considered a “debt instrument” per GAAP • An effective interest rate is calculated based on forecasted royalties, which determines interest expense • Current balance = prior balance + interest expense – royalty paid • If interest expense > royalties paid, balance increases • If royalties paid > interest expense, balance decreases

A – Royalty terms described on next slide

Royalty obligations: terms

	Upfront	Product	Rate Tiers (Key Territories[B])	Rate Tiers (Other Markets[B])	Cumulative Payback Cap
RP 2020	$125M	ORLADEYO	$0-350M: 8.75% $350M-550M: 2.75% Over $550M: None	$0-150M: 20% $150M-230M: 10% Over $230M: None	None
		BCX9930	Global net sales 1%	n/a	None
RP 2021	$150M[A]	ORLADEYO	$0-350M: 0.75% $350M-550M: 1.75% Over $550M: None	$0-150M: 3% $150M-230M: 2% Over $230M: None	None
		BCX9930 BCX10013	$0-1.5B: 3% $1.5B-3.0B: 2% Over $3.0B: None	Tiered profit share up to 3%	None
OMERS 2021	$150M	ORLADEYO	$0-350M: 10% $350M-550M: 3% Over $550M: None	$0-150M: 20% $150M-230M: 10% Over $230M: None	1.55x

A – Royalty Pharma made an additional $50M equity investment in conjunction with the 2021 Royalty Purchase Agreement

B – The "Key Territories" include the United States, key European markets and other markets where ORLADEYO is sold directly or through distributors. The "Other Markets" include revenue from licensees outside the Key Territories.

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