ACHIEVE
LIFE SCIENCES

Corporate Presentation

May 2025

Transforming public health and delivering shareholder value

Forward Looking Statements

This presentation contains forward-looking statements, including, but not limited to, statements regarding the timing and nature of cytisinicline clinical development and regulatory review and approval; data results and commercialization activities; the potential market size for cytisinicline; the potential benefits, efficacy, safety and tolerability of cytisinicline; the ability to discover and develop new uses for cytisinicline, including but not limited to as an e-cigarette cessation product; the development and effectiveness of new treatments; the successful commercialization of cytisinicline; and expectations regarding cash forecasts. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. Achieve Life Sciences, Inc. ("we," "us," "our," or "the Company") may not actually achieve its plans or product development goals in a timely manner, if at all, or otherwise carry out the intentions or meet the expectations or projections disclosed in these forward-looking statements. These statements are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and assumptions that could cause actual results to differ materially from those described in the forward-looking statements, including, among others, the risk that cytisinicline may not demonstrate the hypothesized or expected benefits; the risk that we may not be able to obtain additional financing to fund the development and commercialization of cytisinicline; the risk that cytisinicline will not receive regulatory approval in a timely manner or at all, or be successfully commercialized; the risk that new developments in the smoking and vaping cessation landscapes require changes in business strategy or clinical development plans; the risk that our intellectual property may not be adequately protected; general business and economic conditions; risks related to the impact on our business of macroeconomic and geopolitical conditions, including fluctuating inflation, interest and tariff rates, volatility in the debt and equity markets, actual or perceived instability in the global banking system, global health crises and pandemics and geopolitical conflict; and the other factors described in the risk factors set forth in the Company's filings with the Securities and Exchange Commission from time to time, including its Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q. The Company undertakes no obligation to update the forward-looking statements contained herein or to reflect events or circumstances occurring after the date hereof, other than as may be required by applicable law.

These slides also contain 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.

Certain data in this presentation are based on cross-study comparisons and are not based on any head-to-head clinical trials. Cross-study comparisons are inherently limited and may suggest misleading similarities and differences. The values shown in the cross-study comparisons are directional and may not be directly comparable.

Achieve is poised to be a solution to the U.S. nicotine dependence public health crisis

- Achieve is building cytisinicline as a potential blockbuster treatment for nicotine dependence and other co-morbidities
- 29 million smokers in the U.S. lack adequate tools to quit and make 15 million attempts annually[1]
- Over 480,000 deaths annually from smoking related diseases[2]
- ~17 million adult vapers in the U.S. with 60% wanting to quit[3,4]
- Cytisinicline has potential to be “best-in-class” for smoking cessation and “first-in-class” for vaping cessation

NDA submission for nicotine dependence in smoking cessation expected in June 2025

Expected NDA approval in mid-2026

Product launch expected in Q3/Q4 2026

1st new potential FDA-approved treatment for nicotine dependence in nearly 20 years

Highly differentiated efficacy and tolerability profile

Highly targeted, data-driven and AI-enabled commercial strategy

Potential to be a new solution for the public health crisis from nicotine dependence

Possibility to improve outcomes on smoking-related co-morbidities (COPD, cardiovascular, oncology, diabetes, dementia)

Potential to reframe nicotine dependence as a medical condition

Vaping cessation Phase 3 trial planned for early 2026

Strong IP estate

1. VanFrank B, Malarcher A, Cornelius ME, Schecter A, Jamal A, Tynan M. Adult Smoking Cessation — United States, 2022. MMWR Morb Mortal Wkly Rep 2024;73:633–641; 2. US Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Centers for Disease Control and Prevention; 2014. https://www.cdc.gov/tobacco/sgr/50th-anniversary/index.htm 3. Vahratian A, Briones EM, Jamal A, Marynak KL. Electronic cigarette use among adults in the United States, 2019–2023. NCHS Data Brief, no 524. Hyattsville, MD: National Center for Health Statistics. 2025. DOI: https://dx.doi.org/ 10.15620/cdc/174583 4.Palmer AM, Smith TT, Nahhas GJ, et al. Interest in quitting e-cigarettes among adult e-cigarette users with and without cigarette smoking history. JAMA Netw Open. 2021;4(4):e214146.

Over $300B in smoking-related U.S. health care costs annually[1]

2-4x

increased risk of CVD from smoking[3]

80%

of deaths from lung cancer & COPD from smoking[3]

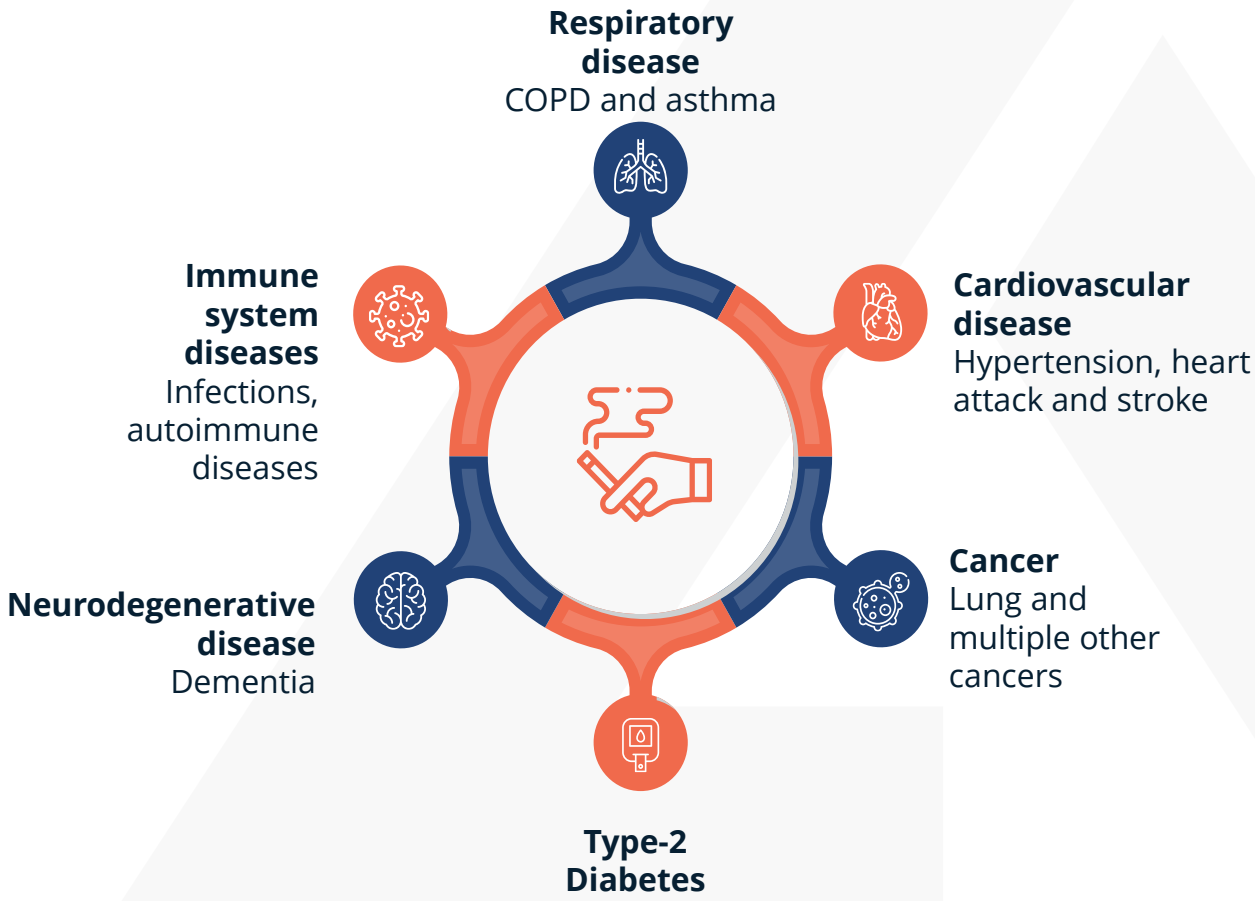
30-40%

increased risk of Type 2 Diabetes from smoking[3]

9x

increased risk of stroke from heavy smoking[4]

29M U.S. smokers with few treatment options[2]



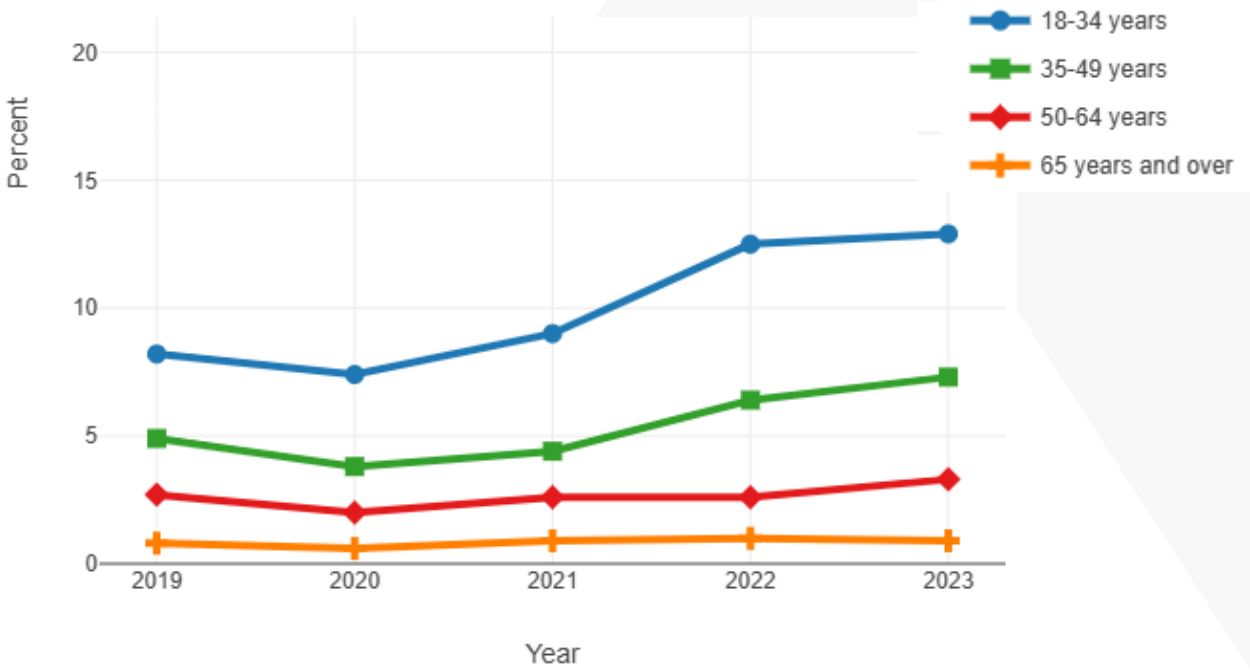
Nicotine dependency is a medical issue, requiring a medical solution

1. Am J Prev Med. 2022 October ; 63(4): 478–485. doi:10.1016/j.amepre.2022.04.032. 2. VanFrank B, Malarcher A, Cornelius ME, Schecter A, Jamal A, Tynan M. Adult Smoking Cessation — United States, 2022. MMWR Morb Mortal Wkly Rep 2024;73:633–641; 3. USDHHS-The Health Consequences of Smoking-2014; 4. Bhat VM,-2008.

~60% of adult e-cigarette users want to quit[1]

- Majority of people who **vape are 18-24** and have **never smoked**[3,4]
- Instead of harm reduction, this is possible **harm creation** for this group
- Many popular vapes used by young adults contain the nicotine equivalent of **13 packs of cigarettes**[5]
- The cumulative exposure to vape aerosols over time in these young vapers could lead to **severe nicotine dependence** and the emergence of previously unknown lung diseases

~17M U.S. adults reported use of e-cigarettes[2]

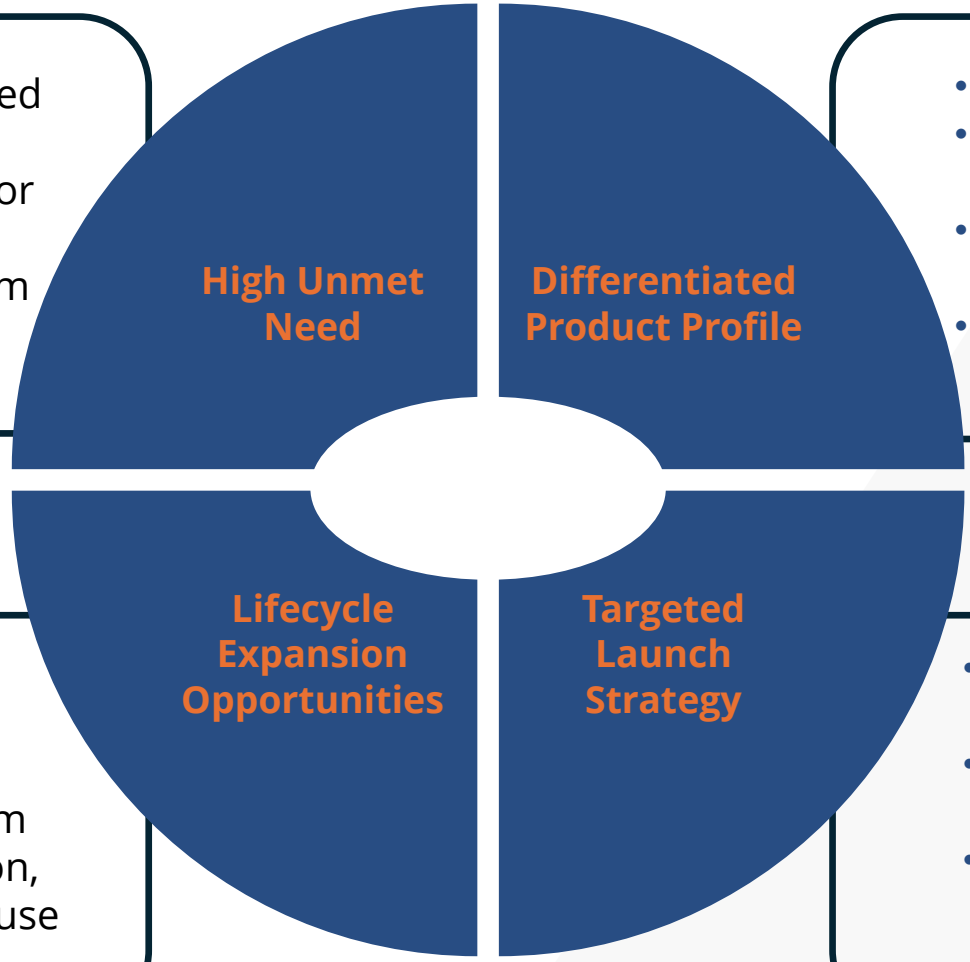


Source: National Center for Health Statistics, National Health Survey[6]

1. Palmer AM, Smith TT, Nahhas GJ, et al. Interest in quitting e-cigarettes among adult e-cigarette users with and without cigarette smoking history. JAMA Netw Open. 2021;4(4):e214146.
2. Vahratian A, Briones EM, Jamal A, Marynak KL. Electronic cigarette use among adults in the United States, 2019–2023. NCHS Data Brief, no 524. Hyattsville, MD: National Center for Health Statistics. 2025. DOI: https://dx.doi.org/10.15620/cdc/174583
3. Cornelius ME, Loretan CG, Jamal A, Davis Lynn BC, Mayer M, Alcantara IC, Neff L. Tobacco Product Use Among Adults - United States, 2021. MMWR Morb Mortal Wkly Rep. 2023 May 5;72(18):475-483.
4. Centers for Disease Control and Prevention.QuickStats: Percentage distribution of cigarette smoking status among current adult e-cigarette users, by age group—National Health Interview Survey, United States, 2021. MMWR Morb Mortal Wkly Rep. 2023;72:270.
5. Leigh, N. J., Page, M. K., Jamil, H., & Goniewicz, M. L. (2024). Characteristics and ingredients of disposable 'Elfbar'e-cigarettes sold in the United States and the United Kingdom. Addiction.
6. National Center for Health Statistics. Percentage of current electronic cigarette use for adults aged 18 and over, United States, 2019—2023. National Health Interview Survey. Generated interactively: May 28, 2025 from https://wwwn.cdc.gov/NHISDataQueryTool/SHS_adult/index.html

Introducing… Cytisinicline: Innovation, overdue.

- First potential new FDA-approved treatment 20 years
- Limited competition in market or in development
- Strong demand anticipated from dissatisfied HCPs & patients



- Highly selective MOA
- Strong efficacy & tolerability in 6- or 12-week treatment durations
- Effective in treatment-resistant smokers
- Relapse prevention

- Once-daily oral dosing
- Alternate admin routes (patch, spray, lozenge)
- Expanded indications: long-term maintenance/relapse prevention, cutting down to quit, cannabis use disorder

- Large and clearly defined customer segments
- Scalable for market share and/or market growth strategies
- Ideal for leveraging AI & omnichannel communications

Clinically meaningful differences for patients and providers

Cytisinicline Profile[1]	Anticipated Competitive Advantage
• Potential indication for nicotine dependence in adult smokers	• First new potential treatment in 20 years • New hope to help patients quit
• 5x increased likelihood of quitting and staying quit • Effective in previously treated/relapsed patients	• Robust efficacy
• Well tolerated • Low discontinuation rates • Only 2 AEs occurred in ≥5% patients with ≥2% difference between placebo and treatment	• Improved tolerability and lack of side effects - leading to adherence and better outcomes
• Reduces cravings and urge to smoke • Quit in 6 or 12 weeks	• Option for the potential to quit quickly
• Future indication for nicotine dependence in adults who vape	• If approved, first and only FDA-approved treatment for vaping cessation

1. ORCA-2 and ORCA-3 Pooled Phase 3 Efficacy and Safety Data and proposed for product label - Data on File; Achieve Life Sciences, Inc.

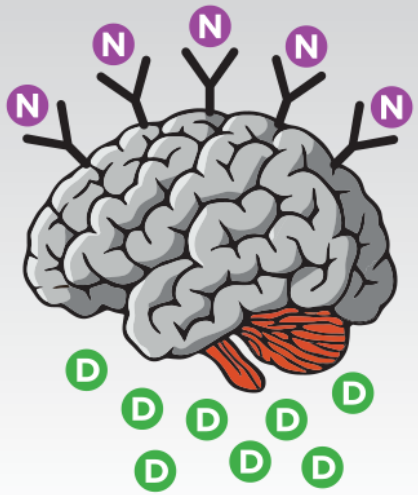
Cytisinicline: The first new potential treatment option for nicotine dependence in 20 years

Nicotine dependence alters brain chemistry

Cytisinicline helps restore it

Dual-acting mechanism of action

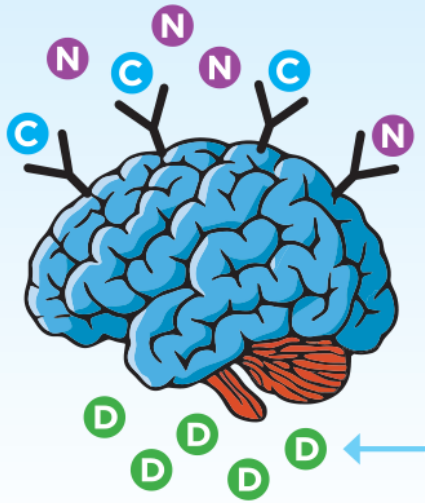
SMOKER
Increased Nicotine Receptors



Addictive levels of Dopamine

TREATMENT INITIATION
Receptors Partially Blocked

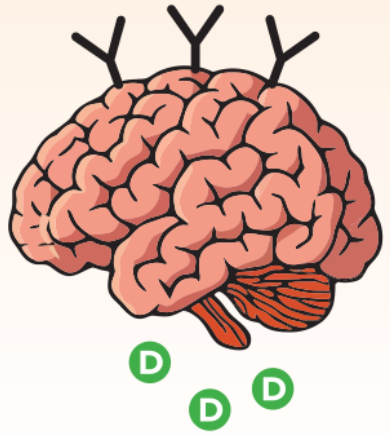
1 Cytisinicline blocks some of the receptors so that nicotine can't get in



2 Cytisinicline is designed to provide just enough reinforcement to reduce craving

Dopamine levels start to normalize

TREATMENT COMPLETION
Receptors Normalized



Normal Dopamine

N NICOTINE

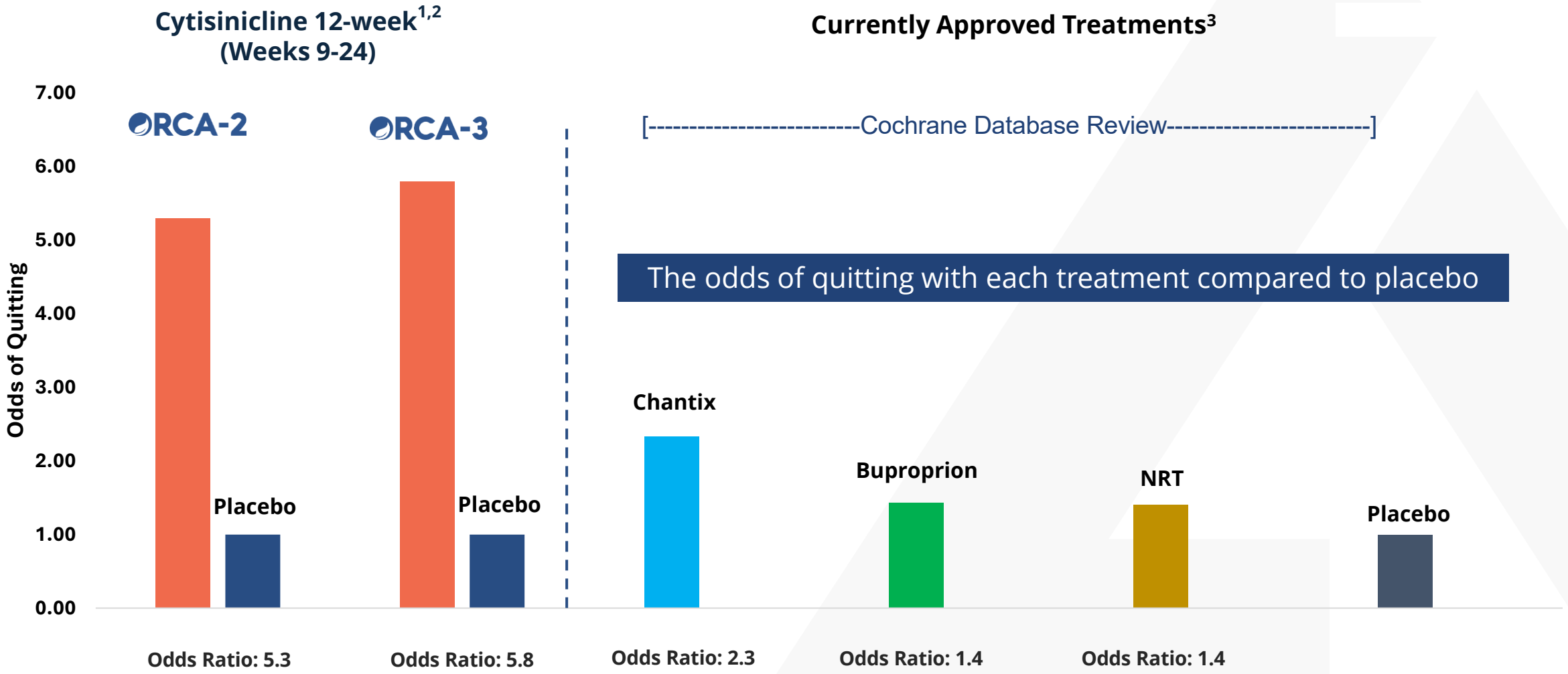
D DOPAMINE

C CYTISINICLINE

NICOTINE RECEPTOR

Sources: 1. Perry D-1999; 2. Picciotto M-1998; 3. Coe, J.W.-2005; 4. Radchenko, E. V.-2015

Cytisinicline provides favorable odds of quitting*



1. ORCA-2: Rigotti NA, Benowitz NL, Prochaska JJ, et al. Cytisinicline for Smoking Cessation: A Randomized Clinical Trial. *JAMA.* 2023;330(2):152–160. 2. ORCA-3: Rigotti NA, Benowitz NL, Prochaska JJ, et al. Cytisinicline for Smoking Cessation: The ORCA Phase 3 Replication Randomized Clinical Trial. *JAMA Intern Med*. Published online April 21, 2025. doi:10.1001/jamainternmed.2025.0628 3. Lindson, N., Theodoulou, A., Ordóñez-Mena, J. M., Fanshawe, T. R., Sutton, A. J., Livingstone-Banks, J., ... & Hartmann-Boyce, J. (2023). Pharmacological and electronic cigarette interventions for smoking cessation in adults: component network meta-analyses. *Cochrane Database of Systematic Reviews*, (9).

* Unweighted, not head-to-head comparison trial evaluation.

Excellent safety profile

Treatment-emergent AEs (TEAEs) reported by ≥5.0% of subjects treated with cytisinicline vs placebo

Preferred Term, n (%)	Placebo (N=532)	Cytisinicline 6 Weeks (N=532)	Cytisinicline 12 Weeks (N=530)
At least 1 TEAE	330 (62.0)	342 (64.3)	352 (66.4)
Insomnia	33 (6.2)	52 (9.8)	57 (10.8)
Abnormal dreams	23 (4.3)	46 (8.6)	41 (7.7)
Nausea	39 (7.3)	41 (7.7)	33 (6.2)
Headache	38 (7.1)	38 (7.1)	43 (8.1)

As of January 2025, 406 subjects have cumulative cytisinicline exposure ≥24 weeks in the long-term exposure pool (N=1305). TEAEs that have occurred in ≥5.0% subjects are similar: insomnia (10.9%), abnormal dreams (10.0%), headache (7.7%), and nausea (6.4%).

Sources: ORCA-2 & ORCA-3 pooled safety data. ORCA-OL interim safety analysis. Data on File Achieve Life Sciences, Inc.

Highly selective targeting improves tolerability profile

Adverse event profile compared to Chantix®

Comparative Analysis of Safety Events*

	Cytisinicline[1]	Varenicline (Chantix®)[2]
Treatment Time	**12 weeks**	**12 weeks**
Adverse Events		
Nausea	6.2%	30%
Insomnia	10.8%	18%
Abnormal Dreams	7.7%	13%
Headache	8.1%	15%

Selective Receptor Targeting[3]

Cytisinicline[3]	Varenicline (Chantix®)[2]	Adverse Events
	5-HT3	Nausea & Vomiting
	α7	Sleep Disturbances
α4β2	α4β2	Headaches, GI Upset

Cytisinicline is >2000 fold less potent at the human 5-HT3 receptor[4]

Chantix® is a registered trademark of Pfizer, Inc.

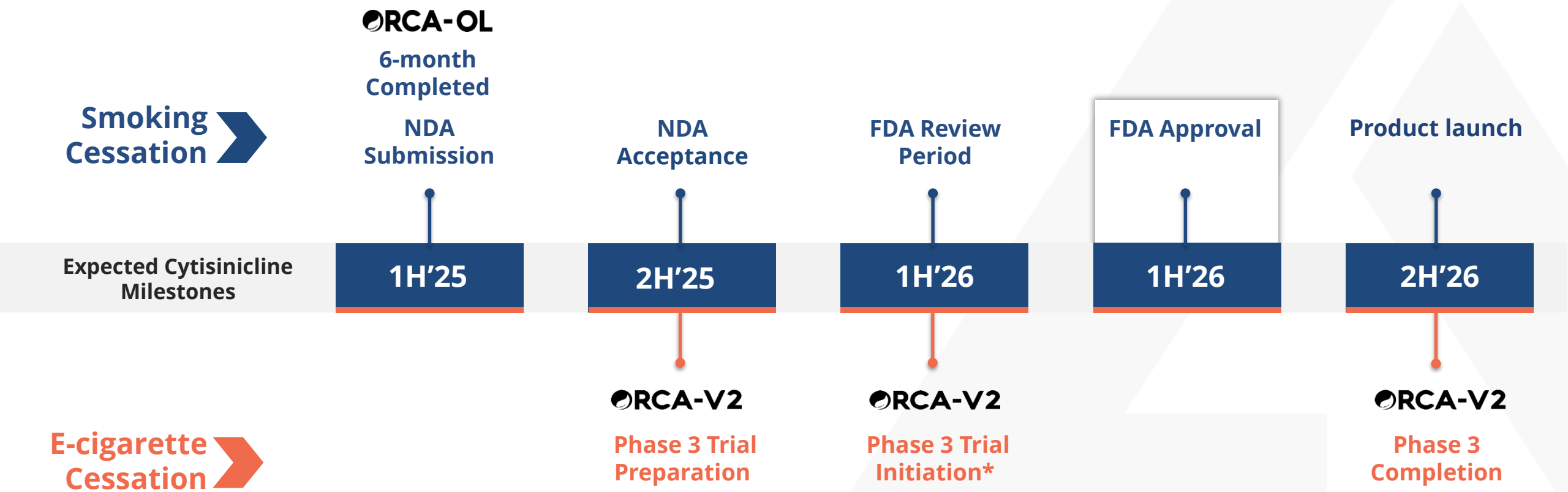
1. Data on file; Achieve Life Sciences ORCA-2 & ORCA-3 pooled data.
2. Chantix Prescribing Information, 6/2018 Pfizer, Inc.
3. Coe J et al. J. Med. Chem. 2005, 48:3474-3477; Papke RL et al. JPET. 2011, 337:367–379; Slater YE et al. Neuropharm. 2003, 44:503–515; Lummis SCR et al. JPET. 2011, 339:125–131.
4. Lummis, SCR, Price,KL, Clarke A, SRNT-E 2020.

*Not a head-to-head comparison trial evaluation.

Cytisinicline clinical development & regulatory journey

Driving toward regulatory approval and launch

Anticipated timeline and key milestones



Timeline are estimates based on management current expectations that have no guarantee and may vary.
*E-cigarette cessation program timeline is finance dependent.

Smoking cessation trials demonstrated clear benefits

Efficacy, tolerability, craving reduction, broad patient response

Key insights from smoking cessation trials

(N=1602)

Robust efficacy

Odds ratios exceeding all available treatment options in both 6- and 12-week dosing options

Excellent tolerability

Nearly all single-digit rates of adverse events and excellent treatment adherence

Reduction in cravings and urges

Clear and significant reductions in overall urges and cravings occurred within 6 weeks of cytisinicline treatment

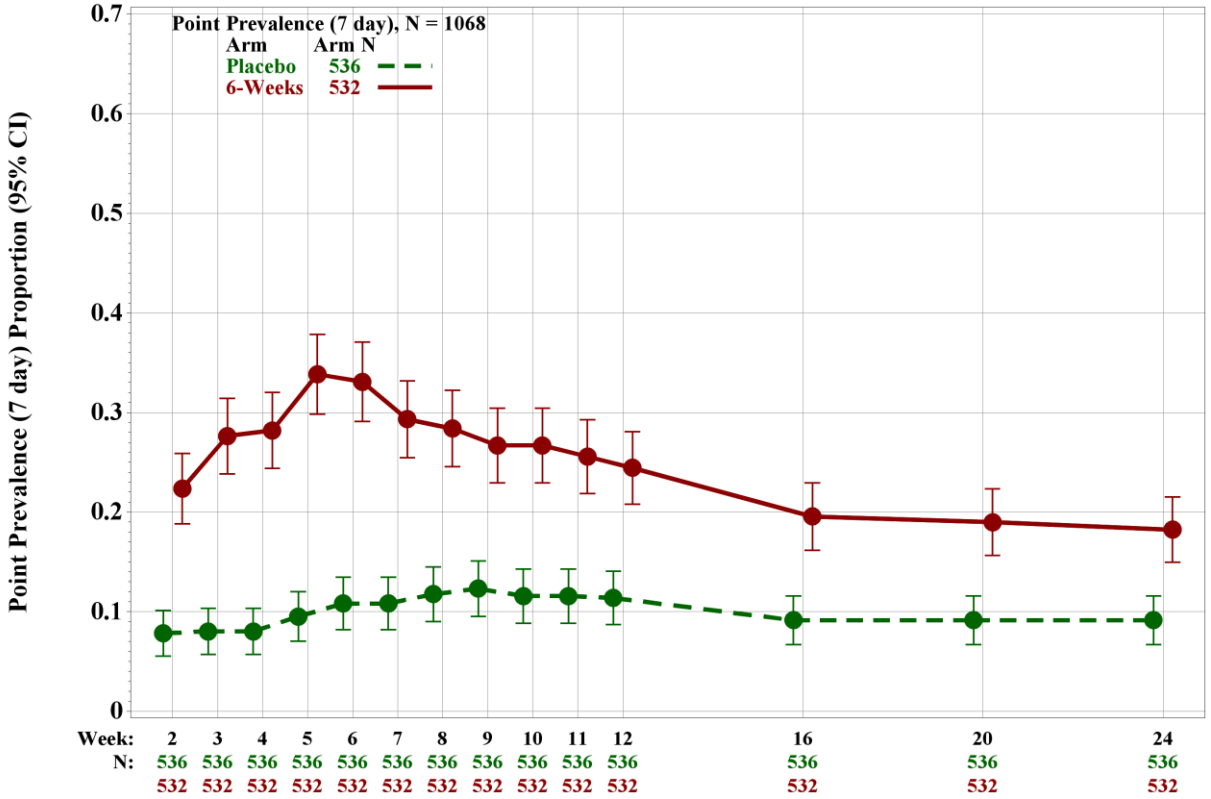
Broad patient response

Cytisinicline benefited heavily pre-treated and hardened smokers regardless of gender, age, prior quit attempts (# and methods), and other concomitant medical conditions

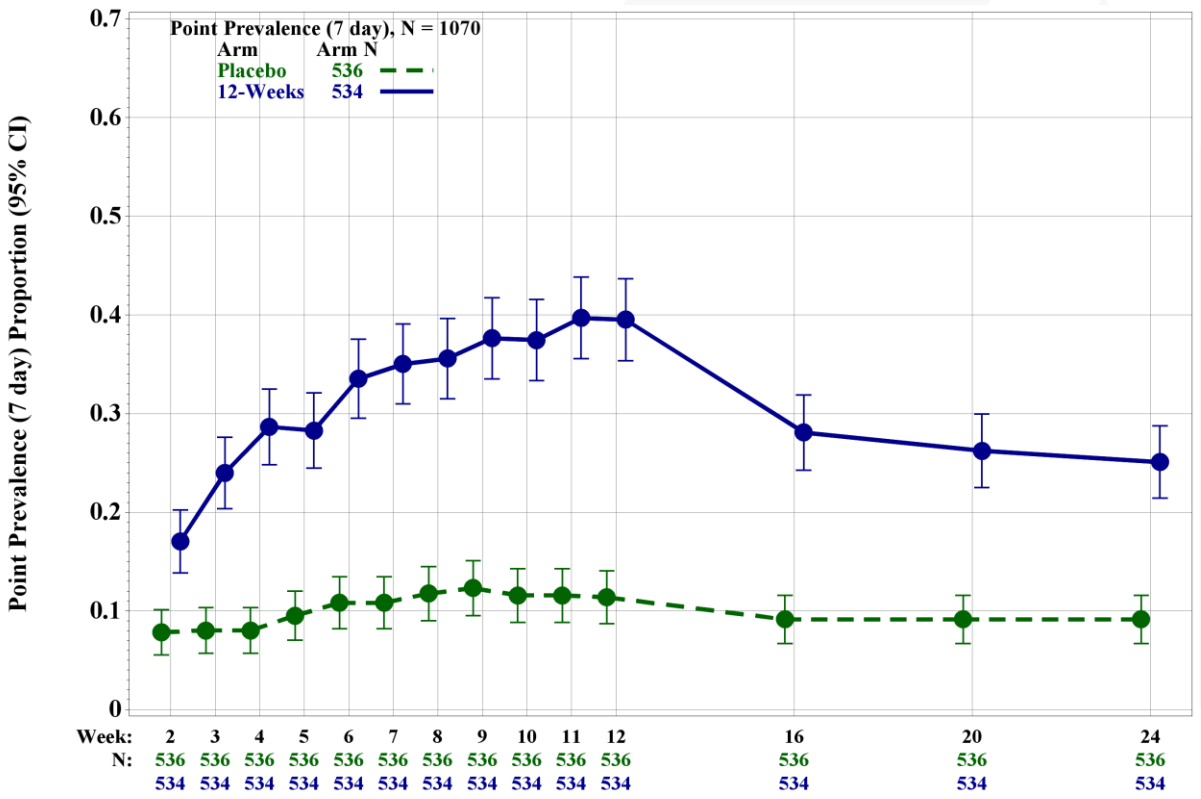
Overall effectiveness: Pooled Phase 3 studies

Point prevalence abstinence rates by week for placebo vs 6-weeks or 12-weeks cytisinicline

6-week Cytisinicline Treatment



12-week Cytisinicline Treatment

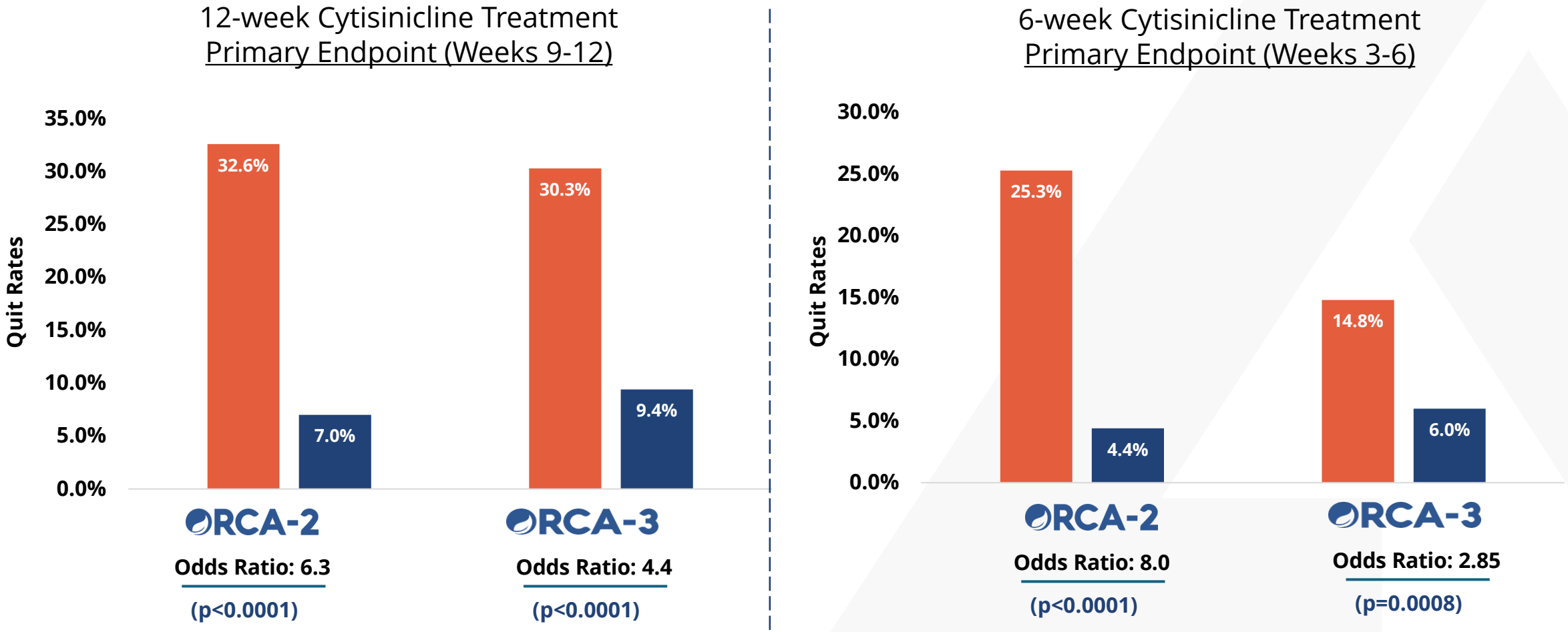


Abstinence by self-report of not smoking and verified by carbon monoxide < 10ppm

Source: ORCA-2 and ORCA-3 Pooled Phase 3 Results - Data on File; Achieve Life Sciences, Inc.

Strong results from smoking cessation trials

ORCA-2 and ORCA-3: Efficacy, tolerability, craving reduction, broad patient response



Source: ORCA-2: Rigotti NA, Benowitz NL, Prochaska JJ, et al. Cytisinicline for Smoking Cessation: A Randomized Clinical Trial. *JAMA.* 2023;330(2):152–160. ORCA-3: Rigotti NA, Benowitz NL, Prochaska JJ, et al. Cytisinicline for Smoking Cessation: The ORCA Phase 3 Replication Randomized Clinical Trial. *JAMA Intern Med*. Published online April 21, 2025. doi:10.1001/jamainternmed.2025.0628

Primary requirements met for NDA smoking cessation indication submission

Open-label, long-term safety exposure trial ongoing; ~75% of participants still in trial

Status and submission plan:

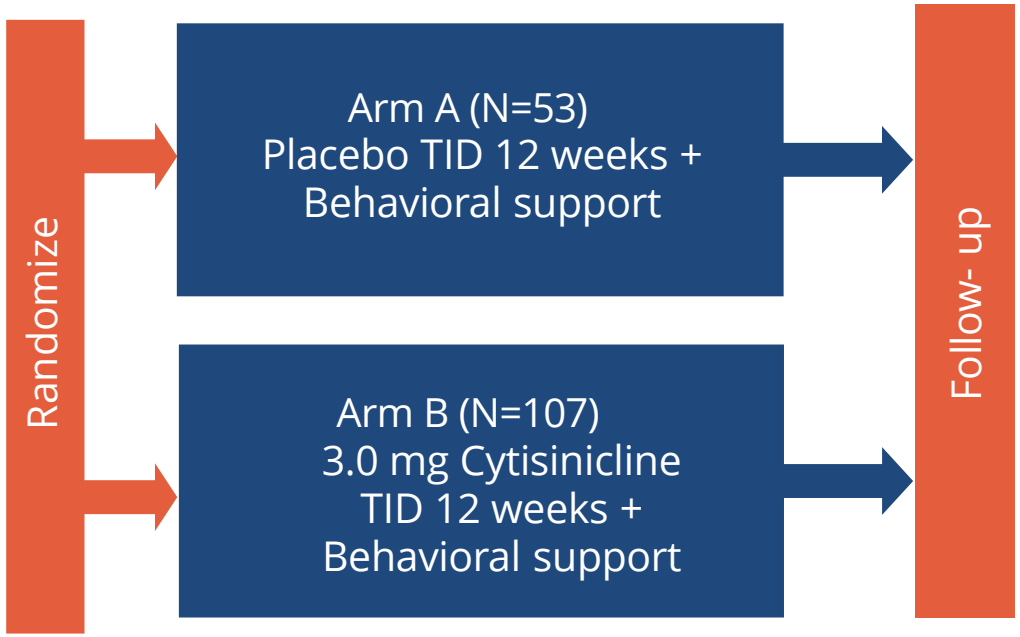
- Completed enrollment October 2024
- 300 patients treated for 6 months (reached Jan. 2025)
- 100 patients treated for 1 year (reached Apr. 2025)
- NDA expected to be filed in June 2025 with 300 patients at 6 months

Vaping trial expands nicotine dependence opportunity

Efficacy, tolerability, compliance, Phase 3 warranted

Phase 2 ORCA-V1 trial design

Nicotine E-Cigarette Cessation Trial



Key insights from vaping cessation trial (N=160)

Robust efficacy
Statistically significant quit rates despite small sample size showing 2.6x increased likelihood of quitting

Excellent tolerability
Favorable adverse event profile demonstrated, no serious adverse events reported

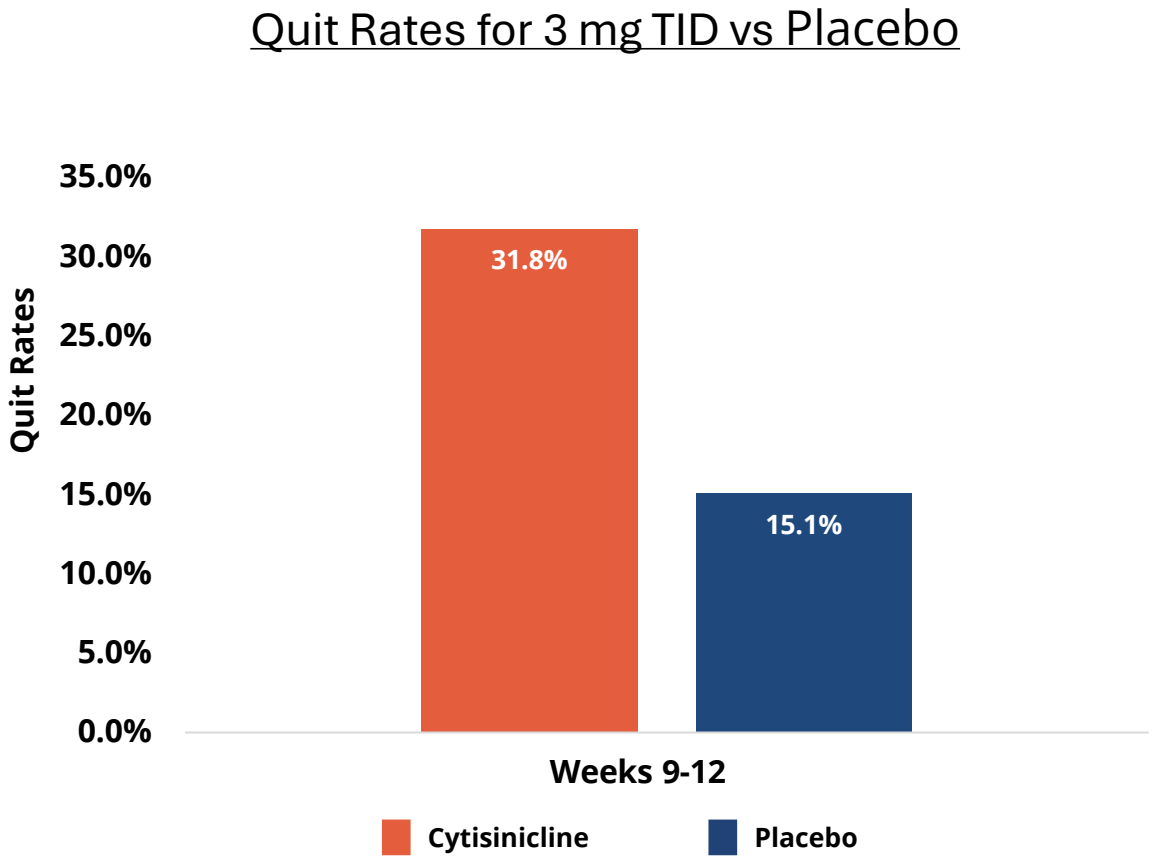
High-level compliance
Greater compliance observed in cytisinicline-treated arm compared to placebo

Phase 3 warranted
Strong evidence supporting use of cytisinicline for vaping cessation to be further evaluated in Phase 3 ORCA-V2 trial

Source: Rigotti NA, Benowitz NL, Prochaska JJ, et al. Cytisinicline for Vaping Cessation in Adults Using Nicotine E-Cigarettes: The ORCA-V1 Randomized Clinical Trial. *JAMA Intern Med.* 2024;184(8):922–930.

Vaping cessation Phase 2 trial results

2.6x increased likelihood of cessation at end of treatment



Primary Endpoint:
Weeks 9-12 Odds Ratio

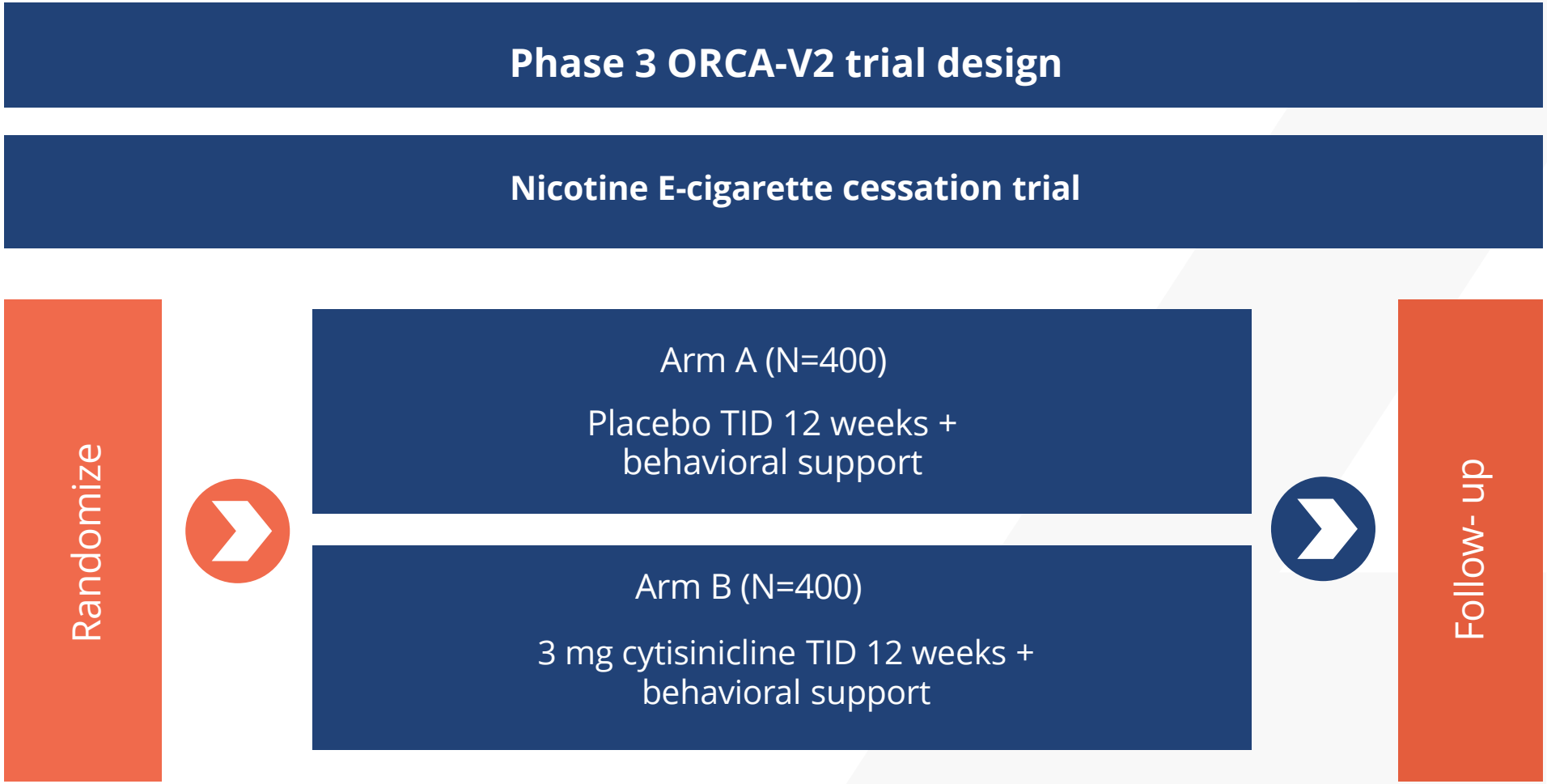
2.64 (p=0.035)

Statistically significant quit rates. Well-tolerated with no serious adverse events.

Source: Rigotti NA, Benowitz NL, Prochaska JJ, et al. Cytisinicline for Vaping Cessation in Adults Using Nicotine E-Cigarettes: The ORCA-V1 Randomized Clinical Trial. *JAMA Intern Med.* 2024;184(8):922–930.

Breakthrough therapy granted (with Priority Review) for cytisinicline in vaping cessation

Phase 3 ORCA-V2 trial design for vaping cessation



Source: Rigotti NA, Benowitz NL, Prochaska JJ, et al. Cytisinicline for Vaping Cessation in Adults Using Nicotine E-Cigarettes: The ORCA-V1 Randomized Clinical Trial. *JAMA Intern Med.* 2024;184(8):922–930.

Innovative and Focused… a data-driven commercialization strategy for maximum impact

Attractive market conditions to launch the first smoking cessation treatment in 20 years

Large and underserved patient and prescriber population

- No new products introduced since Chantix in 2006 / Nothing indicated for vaping cessation
- High rates of dissatisfaction from current products
- Clearly defined segments to guide marketing strategy

No competition for share of voice

- All existing products are generic and nothing in late-stage clinical development
- Branded Chantix withdrawn from market in 2021 before launch of generics

Limited medical education to build disease awareness required

- Harm from smoking is well established
- Focus on MOA differentiation & education on patient selection

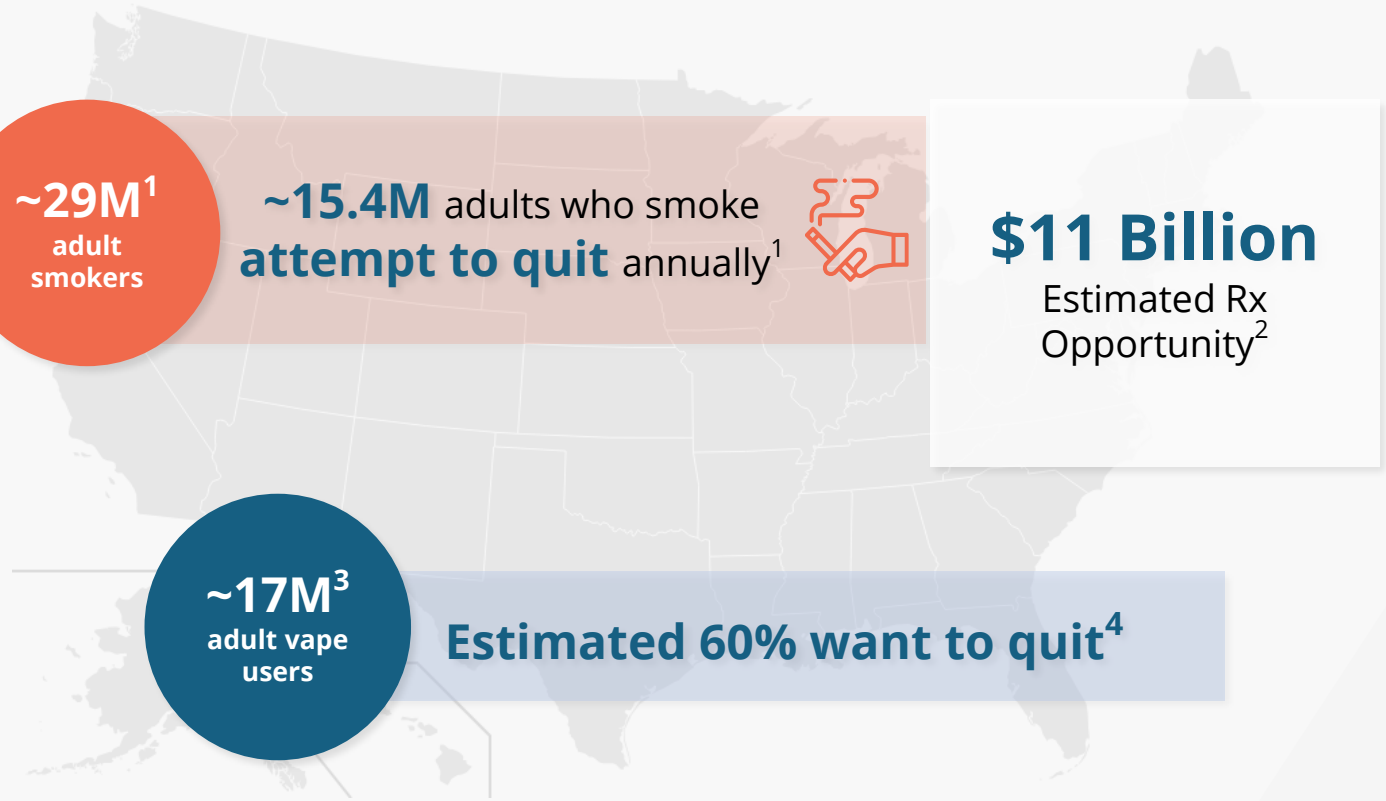
Ease of product use/introduction

- Strong tolerability profile unlikely to cause HCP office burden
- Category, product, & audiences ideal for digital/omnichannel engagement

Favorable access expected

- Category viewed as low-budget impact & ACA/state mandated coverage is expected

Unlocking value by addressing a critical unmet public health need



~29M[1] adult smokers

~15.4M adults who smoke **attempt to quit** annually[1]

$11 Billion
Estimated Rx Opportunity[2]

~17M[3] adult vape users

Estimated 60% want to quit[4]

Lack of options for people who want to quit & for HCPs

~53% attempt to quit smoking annually[1]

~50% who saw an HCP received advice about quitting[5]

<10% successfully quit[1]

No new FDA-approved options **in nearly 20 years**

CDC estimates 36% of people who smoke utilize Rx and OTC cessation treatments annually[5]

1. VanFrank B, Malarcher A, Cornelius ME, et al. Adult Smoking Cessation United States, 2022. MMWR Morb Mortal Wkly Rep 2024;73:633-641
2. Estimate of $500/mo. Chantix pricing – 1 mo.. Rx/patient
3. Vahratian A, Briones EM, Jamal A, Marynak KL. Electronic cigarette use among adults in the United States, 2019–2023. NCHS Data Brief, no 524. Hyattsville, MD: National Center for Health Statistics. 2025. DOI: https://dx.doi.org/ 10.15620/cdc/174583
4. Palmer AM, Smith TT, Nahhas GJ, et al. Interest in quitting e-cigarettes among adult e-cigarette users with and without cigarette smoking history. JAMA Netw Open. 2021;4(4):e214146.
5. Centers for Disease Control Smoking Cessation Fast Facts, accessed 2/8/25.

Precise targeting of high-volume prescribers and engaged quitters

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Changing the Narrative about Nicotine Dependence
Medical Issue vs. Moral Issue

Drive Awareness & Education of Cytisinicline
First New Treatment in 20 Years

Focus at Launch on Audiences Most Likely to Take Action:
High-Volume Prescribers & Engaged Quitters

Cessation Rx Enthusiasts

- High prescribing volume of varenicline
- Sizeable smoking population in practice
- Actively initiates in cessation discussions and follows up
- Prefers Rx to natural treatments
- Favorable impression of cytisinicline

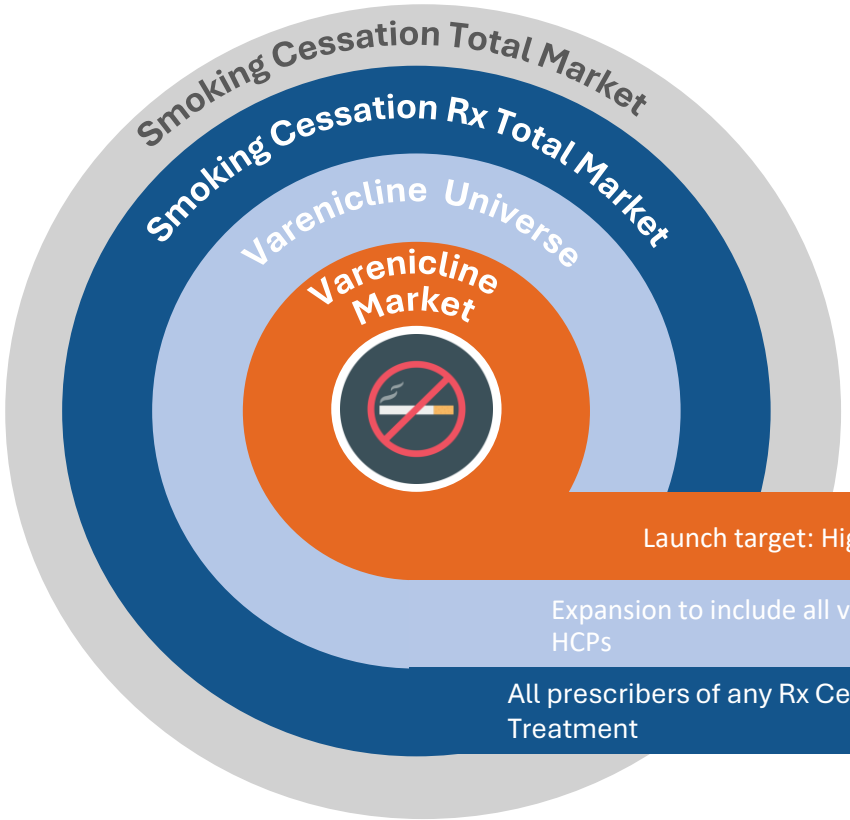
Highly Motivated Quitters

- Heavy, long-term smoker embarrassed of habit and concerned about its health impact
- Consider quitting a top priority
- Confident in healthcare system and utilize it regularly
- Proactively pursue Rx from doctor
- Willing to take oral medication for 6-12 weeks

Source: ACHV Data on File; HCP & Patient Segmentation, Symphony Nicotine Dependence Claims Analysis 2023

Focused Health Care Provider (HCP) launch strategy

Built for growth: initial target on varenicline market share



- Chantix peaked at ~2.8M Rx (75% in U.S. market - $800M)[1,2]
- Launch focus on priority, primary care HCP targets to convert varenicline market share to cytisinicline
- Designed to establish foothold and direct future expansion efforts on additional targets, other product conversion, and/or market growth initiatives.

1. Launch target: High volume HCPs
2. Expansion to include all varenicline HCPs
3. All prescribers of any Rx Cessation Treatment

1 — **Market share launch strategy: Phased digital + F2F/virtual promotion to high-decile prescribers**

2 — **2nd wave expansion option: Extend promotion efforts to additional targets**

3 — **3rd wave expansion option: Conversion of buproprion, NRT, and market growth**

HCP = Health Care Provider

1. Symphony Nicotine Dependence Claims Analysis 2023 2. PFE 10k 2019

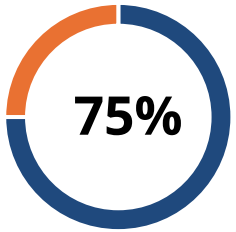
Traditional pharma promotional model is evolving

HCP access and engagement preferences have changed

Traditional approach: Activity based & siloed

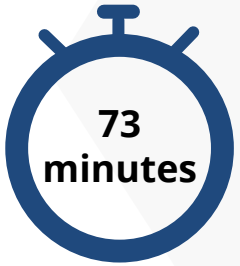
Over-indexing on F2F sales rep-to-doctor interactions and rep-provided content

Ignores HCP reality



IM HCPs do not meet with pharma reps[1]

Time HCPs give rep for in-person discussion[2]



Average time HCP spends daily engaging with non-branded affiliated digital and social channels[3]

1. Veeva Pulse Field Trend Report, Jan.-Dec. 2023. 2. P360 "*Maximizing Pharma Sales Call Effectiveness in Today's Industry*" Dec. 2023. *3.* Prescriber Point *Maximizing HCP engagement with your mobile & social media channels,* July 2024.

Launch focus on data-driven omnichannel approach

Right message, right time, right channel - to optimize reach and impact

HCP Toolkit Examples

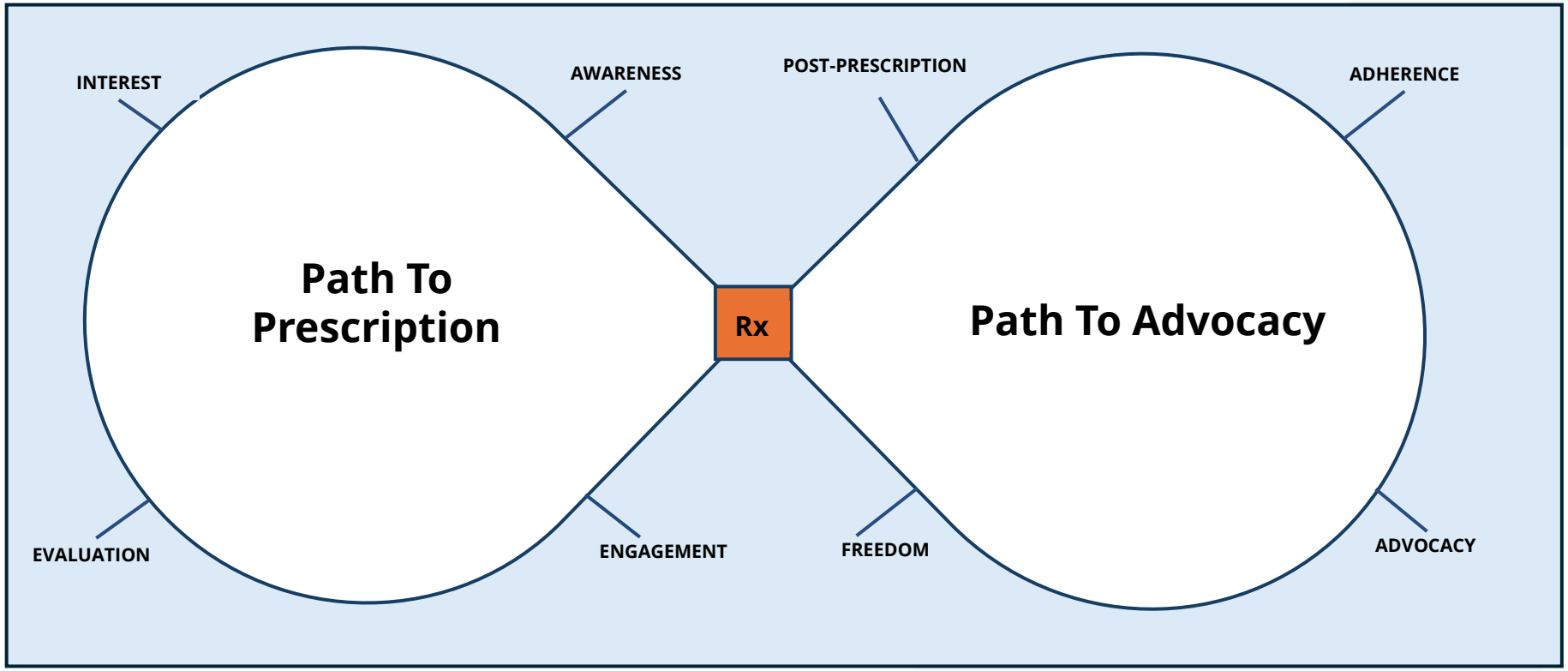
Email

Social

SKIPTA
Medscape
sermo SRNT
Professional Networks

Virtual Sales Reps

F2F Reps



Data Warehouse

Data Engine

Patient Toolkit Example

KOL Content

Banner Ads

Social

Paid Search

Earned Media

Transforming public health while delivering shareholder value

ACHV: Poised to disrupt and drive value

Executive summary

Public health priority

Smoking is the leading cause of preventable death and disease.[1] Covered by the Affordable Care Act.[2]

Near-term solution

With a compelling data package and differentiated product profile, we believe cytisinicline is well-positioned to become the new standard of care for nicotine dependence.

Proven leadership

Executive team and board of directors with track record of successful value creation.

Clear commercial vision

Large and underserved market opportunity and patient need for new and effective treatment for nicotine dependence.

Strong IP position

Broad IP portfolio and patent protection to 2040.

Cash position

Cash runway into the third quarter of 2025.

1. US Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Centers for Disease Control and Prevention; 2014. https://www.cdc.gov/tobacco/sgr/50th-anniversary/index.htm. 2. US Department of Health and Human Services. *Patient Protection and Affordable Care Act Health-Related Portions of Health Care and Education Reconciliation Act; 20210.* *https://www.hhs.gov/healthcare/about-the-aca/index.html*.

Thank you!