

Merger Announcement

July 21, 2022

Forward Looking Statements

This presentation contains forward-looking statements which include, but are not limited to, statements regarding expected timing, completion, effects and potential benefits of the proposed merger; the expected cash, cash equivalents and marketable securities of the combined company at closing; the expected ownership percentages in the combined company; the expected name, ticker symbol, management team and board of directors of the combined company; the design and potential benefits of *neffy*; ARS's plans to submit an NDA to the FDA and MAA to the EMA for *neffy*, the timing thereof and optimism regarding the support therefor; the timing of the commercial launch of *neffy*, if approved, and the ability of the merger to provide sufficient capital for such launch; ARS's commercialization strategy; the potential market opportunity for *neffy*, the projected growth thereof and *neffy*'s ability to capture and grow that market; and any statements of assumptions underlying any of the foregoing. These forward-looking statements are subject to the safe harbor provisions under the Private Securities Litigation Reform Act of 1995. Silverback's expectations and beliefs regarding these matters may not materialize. Actual outcomes and results may differ materially from those contemplated by these forward-looking statements as a result of uncertainties, risks, and changes in circumstances, including but not limited to risks and uncertainties related to: the ability of the parties to consummate the merger in a timely manner or at all; the satisfaction (or waiver) of closing conditions to the consummation of the merger, including with respect to the approval of Silverback's stockholders; potential delays in consummating the merger; the ability of the combined company to timely and successfully achieve the anticipated benefits of the merger; the impact of health epidemics, including the COVID-19 pandemic, on the parties' respective businesses and the actions the parties may take in response thereto; the occurrence of any event, change or other circumstance or condition that could give rise to the termination of the merger agreement; the effect of the announcement or pendency of the merger on Silverback's or ARS's business relationships, operating results and business generally; costs related to the merger; the outcome of any legal proceedings that may be instituted against Silverback, ARS or any of their respective directors or officers related to the merger agreement or the transactions contemplated thereby; the ability to obtain and maintain regulatory approval for *neffy*; results from clinical trials may not be indicative of results that may be observed in the future; potential safety and other complications from *neffy*; the labelling for *neffy*, if approved; the scope, progress and expansion of developing and commercializing *neffy*; the size and growth of the market therefor and the rate and degree of market acceptance thereof vis-à-vis intramuscular injectable products; the combined company's ability to protect its intellectual property position; and the impact of government laws and regulations. Additional risks and uncertainties that could cause actual outcomes and results to differ materially from those contemplated by the forward-looking statements are included under the caption "Risk Factors" and elsewhere in Silverback's most recent filings with the SEC, including its Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 and any subsequent reports on Form 10-K, Form 10-Q or Form 8-K filed with the SEC from time to time and available at www.sec.gov. These documents can be accessed on Silverback's web page at <https://ir.silverbacktx.com/> by clicking on the link "Financials & Filings."

The forward-looking statements included in this presentation are made only as of the date hereof. Silverback Therapeutics assumes no obligation and does not intend to update these forward-looking statements, except as required by law.

Additional Information on the Transaction

Additional Information and Where to Find It

In connection with the transaction, Silverback Therapeutics intends to file with the SEC preliminary and definitive proxy statements relating to the transaction and other relevant documents. The definitive proxy statement will be mailed to Silverback Therapeutics' stockholders as of a record date to be established for voting on the transaction and any other matters to be voted on at the special meeting. BEFORE MAKING ANY VOTING DECISION, INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE PRELIMINARY AND DEFINITIVE PROXY STATEMENTS, ANY AMENDMENTS OR SUPPLEMENTS THERETO AND ANY OTHER DOCUMENTS TO BE FILED WITH THE SEC IN CONNECTION WITH THE TRANSACTION OR INCORPORATED BY REFERENCE IN THE PROXY STATEMENTS WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT SILVERBACK THERAPEUTICS, ARS PHARMA AND THE TRANSACTION. Investors and security holders may obtain free copies of these documents (when they are available) on the SEC's web site at www.sec.gov, on Silverback Therapeutics' website at <https://ir.silverbacktx.com/> or by contacting Silverback Therapeutics' Investor Relations via email at IR@silverbacktx.com or by telephone at (206)736-7946.

Participants in the Solicitation

Silverback Therapeutics and its directors and certain of its executive officers may be deemed participants in the solicitation of proxies from the stockholders of Silverback Therapeutics in connection with the transaction and any other matters to be voted on at the special meeting. Information regarding the names, affiliations and interests of such directors and executive officers will be included in the preliminary and definitive proxy statements (when available). Additional information regarding such directors and executive officers is included in Silverback Therapeutics' definitive proxy statement on Schedule 14A for the 2022 Annual Meeting of the Stockholders, which was filed with the SEC on April 28, 2022.

Information regarding the persons who may, under SEC rules, be deemed participants in the solicitation of proxies of Silverback Therapeutics' stockholders in connection with the transaction and any other matters to be voted upon at the special meeting will be set forth in the preliminary and definitive proxy statements (when available) for the transactions.

These documents are available free of charge as described in the preceding paragraph.

Non-Solicitation

This presentation will not constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to buy any securities, nor will there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

Transformative Transaction for Silverback Therapeutics, Inc.

- In March this year, Silverback announced a strategic reprioritization, and over the last three months the company explored strategic alternatives anticipated to provide value to Silverback stockholders
- Merger with ARS provides Silverback stockholders with the opportunity to participate in the potential growth of the combined company:
 - *neffy*TM offers a **clear value proposition for a convenient, no needle, no injection replacement for epinephrine autoinjectors** (e.g., EpiPen)
 - **Near-term commercial product with a sizable potential market and opportunity** for long-term value creation
 - **Strong management team that has a proven track record** of developing and commercializing intranasal medicines
- Silverback will be focused on closing the proposed transaction with ARS and exploring opportunities to divest the SBT8230 program for chronic HBV and other preclinical assets

ARS – Silverback Merger Transaction Summary

- **ARS Pharmaceuticals and Silverback Therapeutics agreed to merge** on July 21, 2022 in an **all-stock transaction** and expected to trade on **Nasdaq** under new symbol **SPRY**
- **Transaction expected to close in Q4 2022**
- **Strong financial position with ~\$265M in total cash balance** expected at closing
- **Silverback equity holders will own ~37% of the combined company and pre-merger ARS equity holders will own ~63%**, subject to certain adjustments, including Silverback's net cash at closing
- **Post-merger Board of Directors of ten members:** seven from ARS and three from Silverback
- Transaction has been **approved by the Board of Directors of both companies** and is subject to approval of the stockholders of both companies

neffy[™] is an investigational new drug currently in clinical trials for the emergency treatment of allergic reactions (type I) including anaphylaxis.

neffy[™] is not approved by the US. Food and Drug Administration (FDA), European Medicines Agency or other health authorities.

The efficacy and safety of **neffy**[™] has not been established.

In addition, the tradename, **neffy**[™], is tentatively approved by FDA but has not received final approval from the FDA or any other regulatory body.



THE FIRST NO-NEEDLE, NO-INJECTION SOLUTION for Type I Allergic Reactions

JULY 2022



Potential to Transform the Treatment of Type I Allergic Reactions

- **neffy**: first “no needle, no injection” solution for Type I allergic reactions to address an unmet market need
- **Registration program** demonstrates comparable PK and PD, without risk of needle-related safety concerns, fear and hesitation
- **Significant opportunity to disrupt** current epinephrine injectables market
- **Planned Q3 2022 NDA submission and potential 2023 approval**
- **Potential multi-billion-dollar market** driven by HCP and consumer preference and adoption
- **NCE-like IP exclusivity** potential until at least 2038



Proven leadership team with track record developing and commercializing intranasal and consumer-driven medicines



Richard Lowenthal, M.S.

Chief Executive Officer, Co-Founder

Led FDA approvals for multiple nasal spray products
25+ years of experience



Sarina Tanimoto, M.D.

Chief Medical Officer, Co-Founder

Led FDA approvals for multiple nasal spray products
20+ years of experience



Eric Karas

Chief Commercial Officer

Led Narcan® commercial ops at Emergent/Adapt, and Auxilium specialty
25+ years of experience



Harris Kaplan

EVP, Commercial Strategy

40+ years of commercial strategy across more than 125 product launches



Dan Relovsky

SVP, Sales & Marketing

30+ years of marketing, sales and operational experience across specialty and consumer markets



Brian Dorsey

EVP, Operations & Project Mgmt

25+ years of R&D experience as including multiple head of R&D roles including Pernix, Apricus and Somaxon



Kathy Scott

Chief Financial Officer

30+ years of finance experience including multiple CFO roles including Neurana, Recros and Oncternal



Justin Chakma

Chief Business Officer

10+ years of M&A, licensing, financing and strategy experience including Celgene, Receptos and Auspex



Robert Bell, Ph.D.

Chief Scientific Officer, Co-Founder

30+ years of senior R&D leadership experience including Barr and Somerset

Top-tier board of directors, investors and partnerships



Pratik Shah, Ph.D.

Chairman of Board of Directors

Executive Chairman at Design,
Former Chairman of Synthorx
(acq. \$2.5B), Former CEO at
Auspex (acq. \$3.5B)



Richard Lowenthal, M.S.

Chief Executive Officer, Co-Founder

Led FDA approvals for
multiple nasal spray products
25+ years of experience



Peter Kolchinsky, Ph.D.

Managing Partner and Founder
at RA Capital



Brent Saunders

Chairman at The Beauty Health Co.,
Former CEO of Allergan (acq. \$63B),
Actavis, Forest Labs, and Bausch +
Lomb (acq. \$8.7B)



Jonathan Leff

Partner at Deerfield Management
Chairman of Deerfield Institute



Rajeev Dadoo, Ph.D.

Managing Partner at SR One



Michael Kelly

Former President, US Operations at
Adapt (acq. \$735M), CEO at Covis
(acq. \$1.2B), founder at Azur



Philip Schneider

Former CFO at IDEC, former Board
member at Arena (acq. \$6.7B), Auspex
(acq. \$3.5B), GenProbe (acq. \$3.7B)



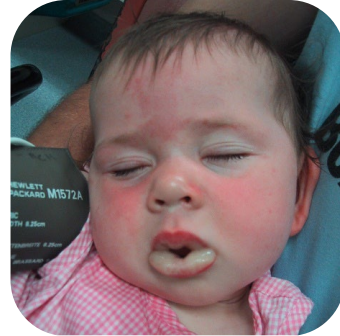
*Undisclosed large
U.S.-based
healthcare-focused fund*



*Undisclosed Japanese and
Chinese commercialization
partners*

Type I allergic reactions: a life-threatening hypersensitivity reaction

Caused by exposure to a **specific allergen**, most commonly **food**, **venom**, **drugs**, and latex



~25 million people in US with systemic Type I allergic reaction to allergens (e.g., 2+ organ systems involved)



10+ million people with other Type I allergy indications (e.g., asthma exacerbations, urticaria flares)



Significant co-morbidities and symptomatic impact on patient quality of life



More than half a million¹ ER visits each year due to systemic Type I allergic reactions, costing an average of \$1600+ per visit²

Epinephrine is effective, but significant device limitations exist



Epinephrine recognized as the **only first-line therapy** by allergy society treatment guidelines¹, but...

Apprehension to dose due to needle

Lack of portability

Reluctance to use in public

Safety concerns: lacerations, caregiver self-injection, blood vessel hits

Lack of reliability

Not user friendly



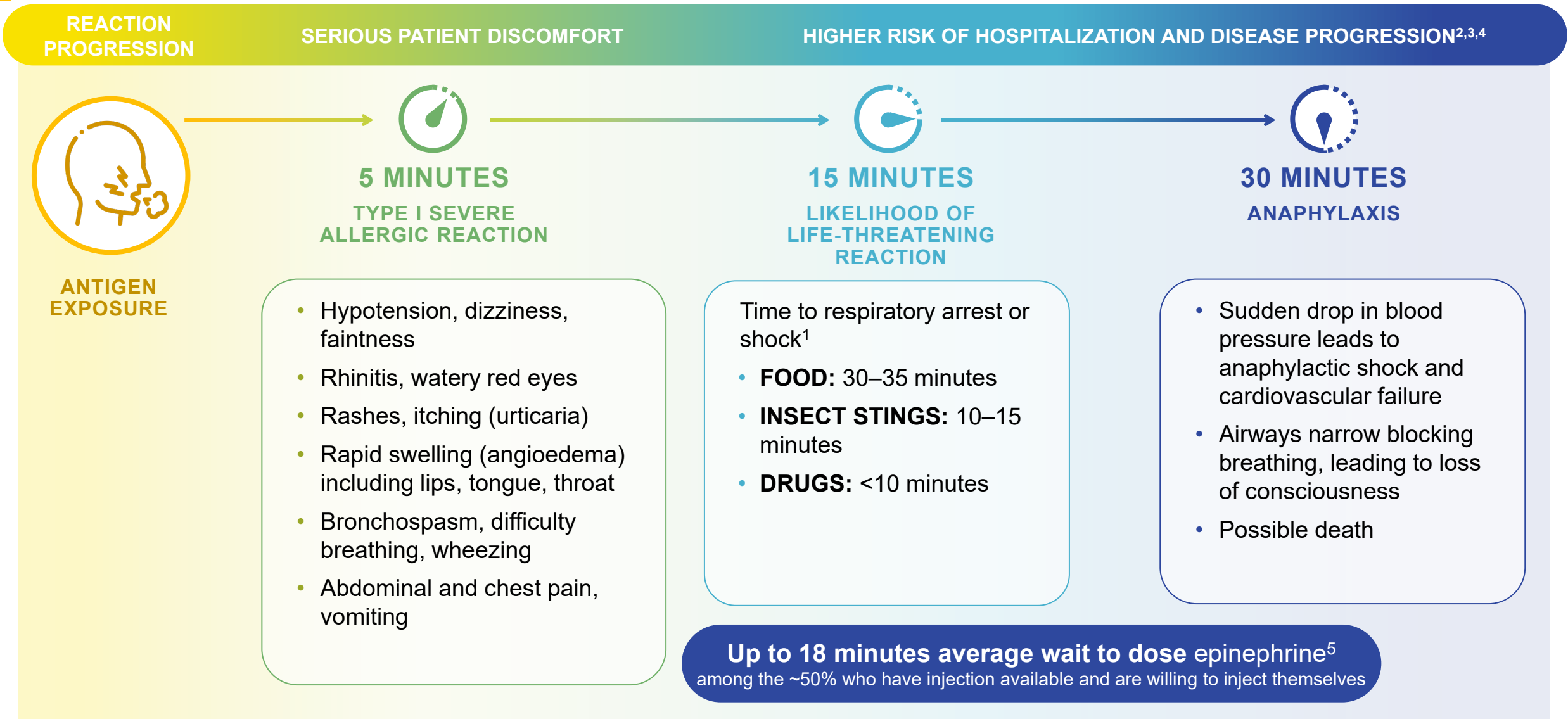
Epinephrine Auto-Injector Devices by Amneal and Impax: CDER Alert - FDA Alerts Patients and Health Care Professionals About Device Malfunction

FDA alerts patients and health care professionals of EpiPen auto-injector errors related to device malfunctions and user administration

Bloomberg

7 fatalities and 35 hospitalizations reported due to failures

Early intervention with epinephrine is critical in a Type I allergic reaction



Limitations of injection lead to hesitation and decreased or ineffective usage **neffy** may address these limitations to transform the treatment paradigm

PROBLEM



NO TREATMENT AVAILABLE

< 50% of patients carry¹



REFUSAL OF TREATMENT

~25% - 50%^{1, 3, 5} do not administer



DELAY IN TREATMENT

~60%² of patients delay



FAILURE OF TREATMENT

23 - 35%⁴ fail to dose correctly

neffy SOLUTIONS



1

SMALL

- Fits in your pocket; can carry more than 1
- ~10% of cases require multiple doses of epinephrine¹



2

NO NEEDLE NO INJECTION

- Rapid administration without a needle
- No risk of needle-related injuries; lacerations² or cardiotoxic blood vessel injections
- Less hesitation to dose

3

EASIER AND MORE CONSISTENT DOSING

- 0% critical dosing errors in registration self-administration study
- Low dose of epinephrine achieves efficacious PK without overexposure risk

4

RELIABLE

- 99.999% delivery of effective dose in reliability testing; no inhalation required
- Same shelf-life as EpiPen, but also stable at high temperatures



Demonstrated PK and PD comparable to Injection, with improved safety profile

Sources: (1) Warren et al. Ann Allergy Asthma Immunol (2018), (2) Data on file from ARS market research, (3) Brooks et al. Ann Allergy Asthma Immunol (2017), (4) El Turki et al. Emerg Med J (2017), (5) Asthma and Allergy Foundation of America Patient Survey Report (2019)

neffy comprehensive clinical program supports planned NDA submission

FDA confirmed three primary registration studies required for *neffy* approval

EPI-15: Single dose and twice dosing in healthy volunteers (n=42)

EPI-16: Nasal challenge in allergic rhinitis patients (n=36)

EPI-17: Self-administration in Type I allergy patients (n=42)

IM needle & syringe is the gold standard and reference-listed drug

Primary outcomes for all trials: PK (bioavailability) and PD (SBP, HR)

EPI-10 pediatric trial interim data to be included in NDA submission, FDA requested

***neffy* meets the endpoints discussed with FDA** in completed clinical studies*

Criteria (C_{\max} , t_{\max} , early partial AUCs) is comparability to epinephrine injection products (bracketed by approved products)

Multiple successful meetings completed with FDA and EMA;
no gating factors to planned NDA and MAA

Approved injection products have a range of PK profiles, but are all deemed efficacious (no known difference across products)

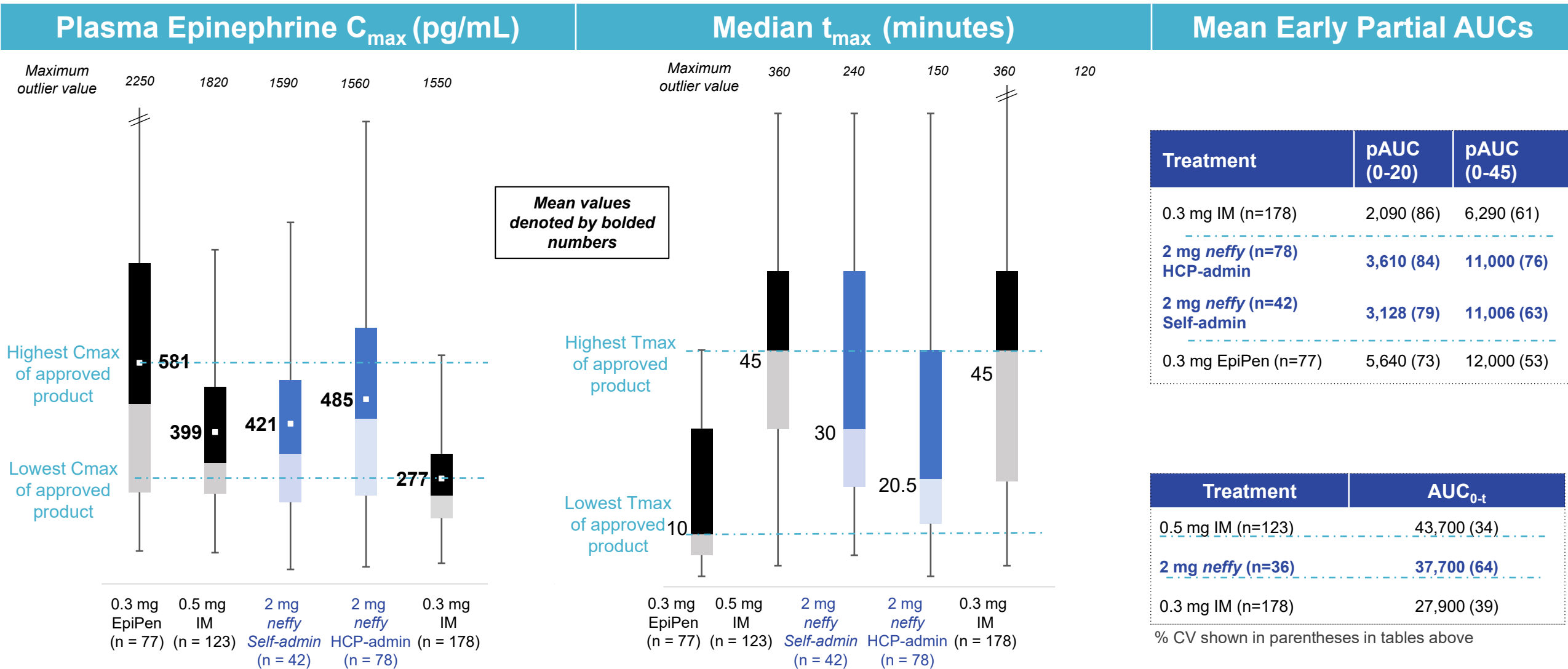
TREATMENT	N	Mean Study C_{max} (pg/mL)	Median or Mean Study T_{max} (min)	Study T_{max} range (min)
Epinephrine 0.3 mg IM (ARS Data)	181	244 – 339	45	4 – 360
Symjepi 0.3 mg (ARS Data)	36	438	30	4 – 90
EpiPen 0.3 mg (ARS Data)	113	375 – 753	6 – 24	2 – 154
EpiPen 0.3 mg (Literature)	296	308 – 649*	5 – 30	1 - 120
Auvi-Q 0.3 mg* (Literature)	67	486	20	5 – 60
Total Range		244 to 753	5 to 45	1 to 360

*Baseline corrected

- FDA has stated **neffy** should be bracketed by PK of approved products
- 0.3 mg IM (needle & syringe) is the reference-listed drug (RLD) and considered to be the gold standard
- All approved products have indistinguishable clinical effect and time to observed clinical benefit
- PD is supportive

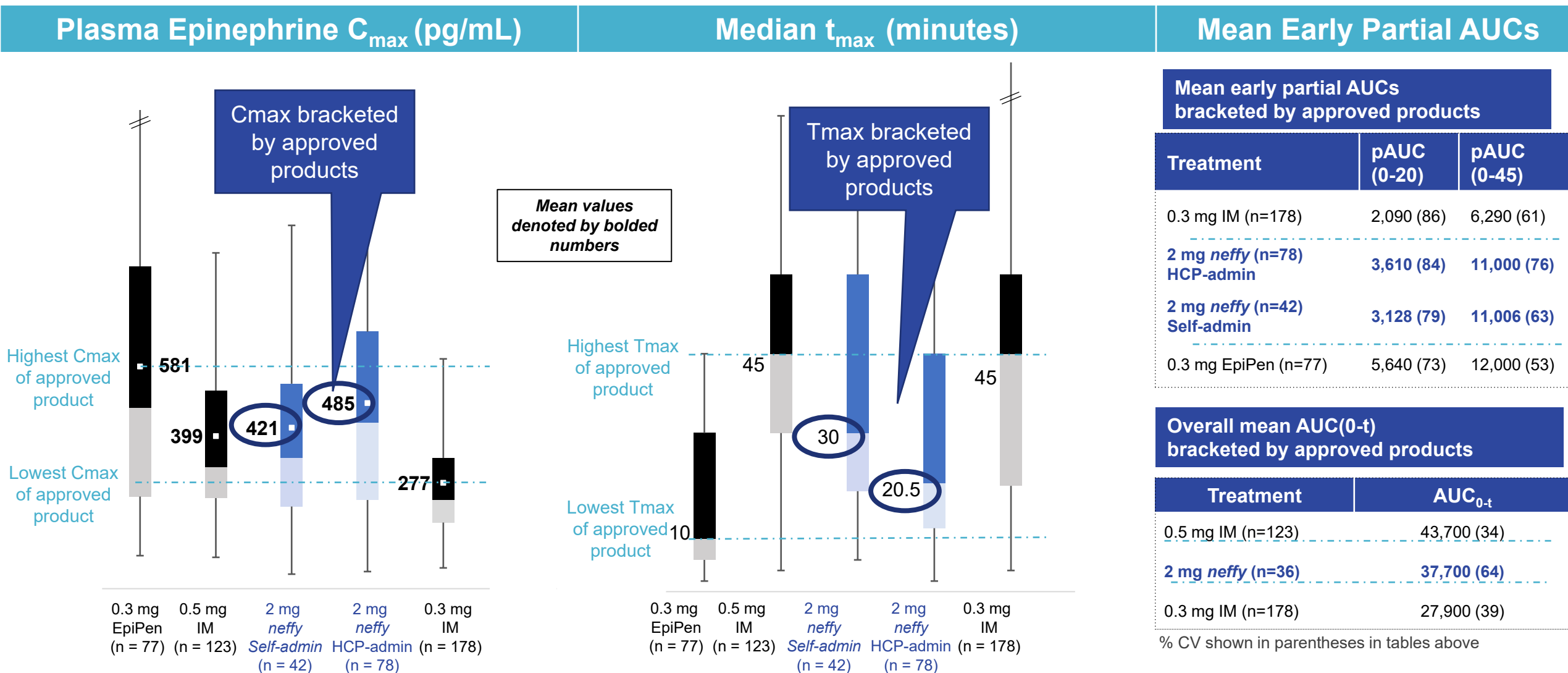
neffy meets FDA-confirmed endpoints in 3 primary studies*

Integrated PK data summary for *neffy* and comparators



neffy meets FDA-confirmed endpoints in 3 primary studies*

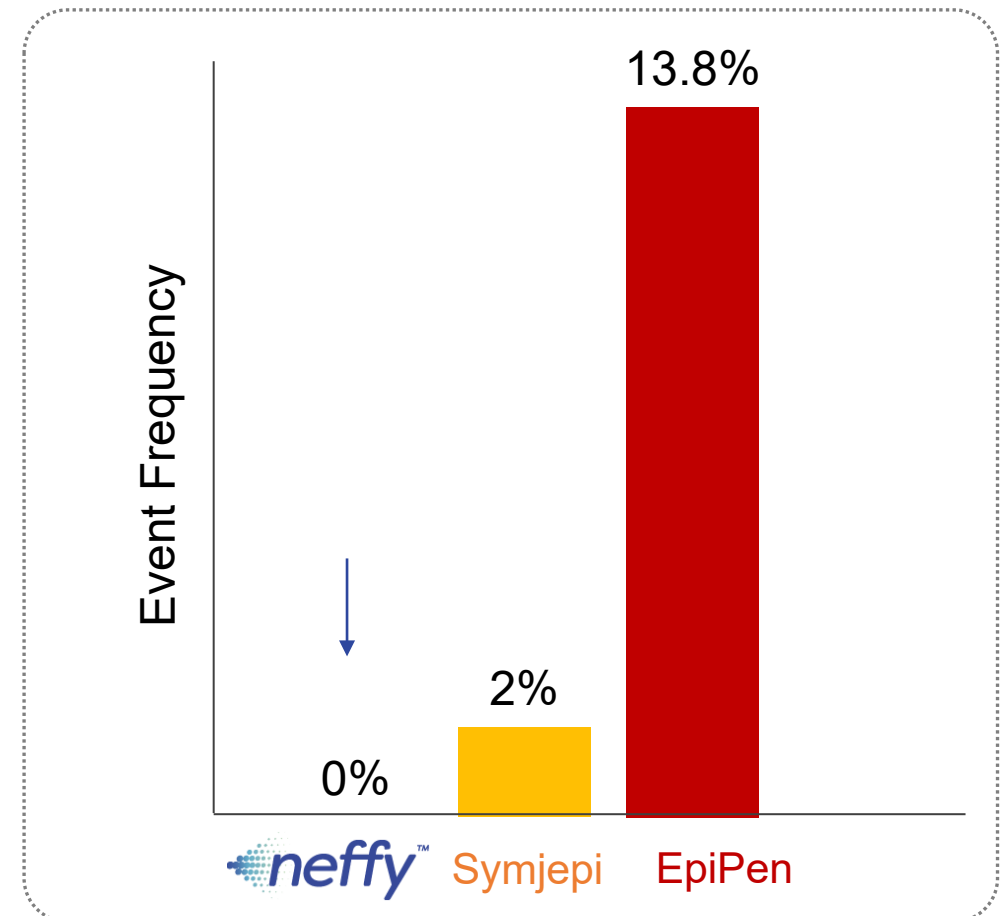
Integrated PK data summary for **neffy** and comparators



neffy well-tolerated across 500+ individuals dosed in clinical program

- Well-tolerated at all single-doses (0.5 mg to 2 mg) and repeat doses up to 4 mg within 10 minutes
- Mostly grade 1 events and comparable to injection products
- Low Pain Scores: recorded by VAS (100mm scale) with mean scores between 5 and 8 out of a score of 100 across studies
- No irritation based on formal scoring in all studies
- No serious treatment-related adverse events
- No risk of needle-related injuries or blood vessel injections

Risk of blood vessel injection during self-administration that could lead to adverse events



neffy on-track for NDA submission with potential FDA approval in 2023

- **Successful pre-NDA meeting completed with FDA mid-2021**

- We believe no additional data needed or other gating factors for NDA submission
- Engagements support clinical data package and bracketing as best approach to supporting efficacy and safety

- **Pediatric program to support label expansion**

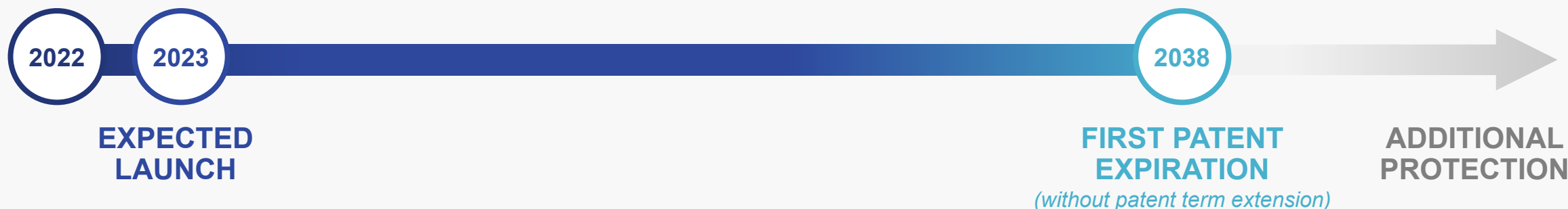
- Pediatric data to be included in NDA, at FDA request
 - Demonstrated tolerability consistent with prior studies
 - 2 mg data included in initial NDA to support >30 kg pediatric labeling
 - 1 mg data to be included in supplemental NDA to support 15-30kg population

- **NDA submission on-track for Q3 2022:**
Adults and Pediatric Patients (30kg or greater)
- Management team with proven track record in developing and launching nasal spray products
- Commercial readiness efforts underway
- **Preparing for 2023 approval and launch**

neffy market exclusivity potential until at least 2038

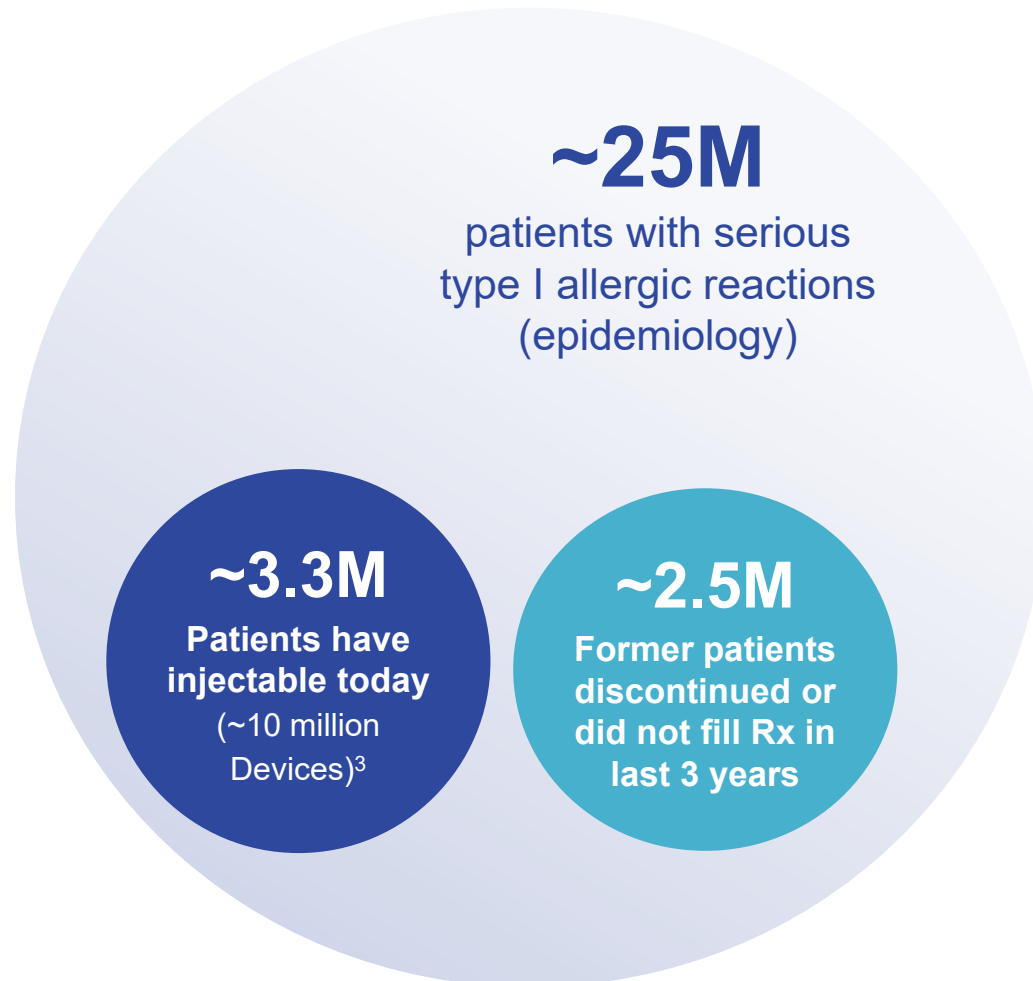
Extensive studies in the lab and clinic completed to develop a proprietary product with expected NCE-like exclusivity

- ✓ Issued composition of matter patent (US10,576,156) on Intravail® + epinephrine provides foundational exclusivity blocking any generic products. Method of treatment patents (US11,173,209; US11,191,838) block other alkyl glycosides.
- ✓ Issued method of treatment patent (US10,682,414) blocks any intranasal epinephrine product using a different technology using a low dose (<2.5 mg)
- ✓ PCT patent granted in Europe (EP19751807), UK (GB2583051), Japan (JP6941224), Australia (AUS2019217643) and Korea (10-2375232) with same composition of matter and method of treatment claims as the US



Significant existing US market opportunity for *neffy* penetration

CURRENT ~\$1 BILLION¹ ANNUAL EPINEPHRINE MARKET IS THE IMMEDIATE OPPORTUNITY



MULTIPLE LEVERS OF CURRENT MARKET GROWTH

Consistent market growth

+5% y/y in the last ~15 years

Promotional responsiveness

+31% historic lift from Mylan

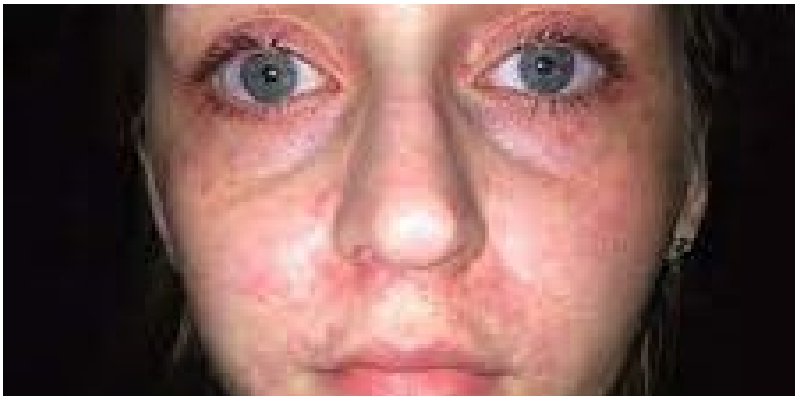
No meaningful promotion today

More devices per patient

Potential for twice as many *neffy* devices annually vs. injectables

Target former patients without Rx or who don't fill

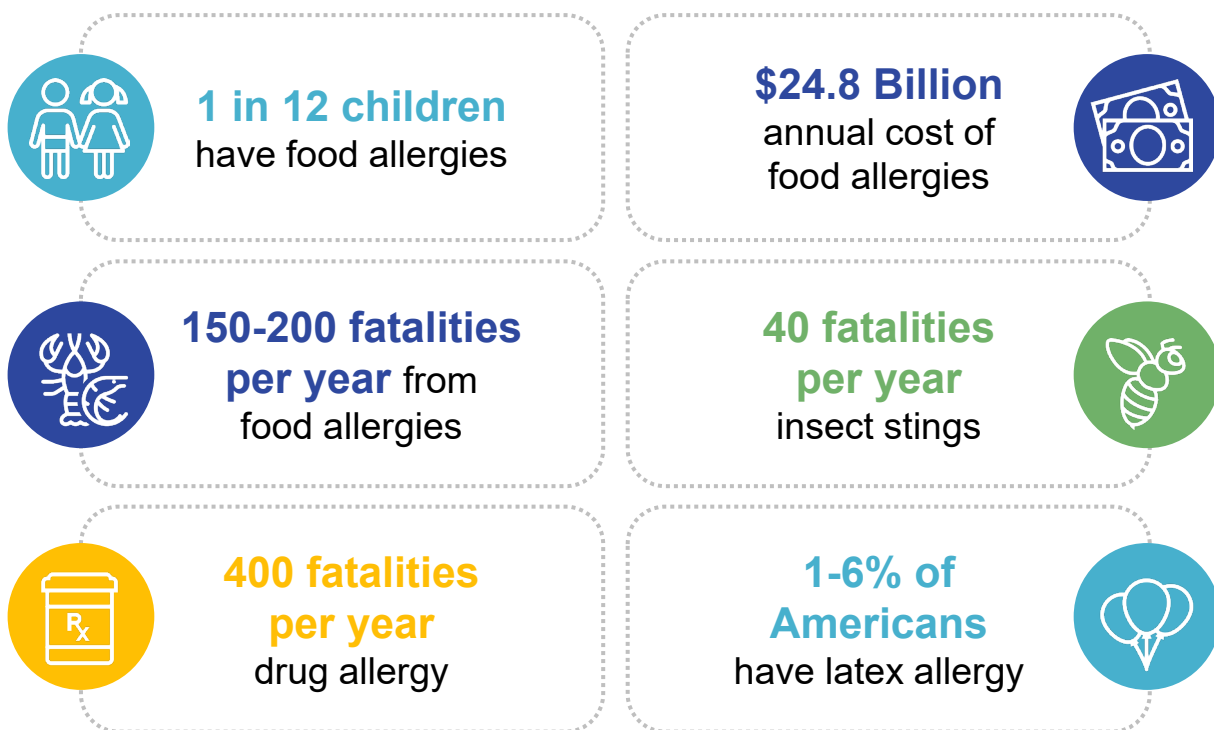
Millions of identified patients



neffy has the potential to transform the treatment of Type I allergies

neffy has the opportunity to address a significant unmet need

LIFE-THREATENING ALLERGIES



- Severe allergic reactions involve more than one system (e.g., skin and respiratory) have the potential to progress to anaphylaxis and become life-threatening
- Severe allergic reactions can present in multiple ways, varying severity, are unpredictable, and can progress very quickly
- Education is needed due to complexities in both the HCP and patient communities for the immediate use of epinephrine to avoid a severe Type I allergic reaction progressing to anaphylaxis

~25M patients with Type I Severe Allergic Reactions (SAR) represent a significant therapeutic opportunity at launch and beyond



3.3 M
(13%)

SAR Patients With Epinephrine Injectable Rx

Patients seeking care who have filled their Rx

Primary Launch Target



13.1 M
(53%)

SAR Patients Actively Managed by HCP

Patients seeking care but without a filled Rx

Secondary Launch Target



8.6 M
(34%)

SAR Patients Not Managed by HCP

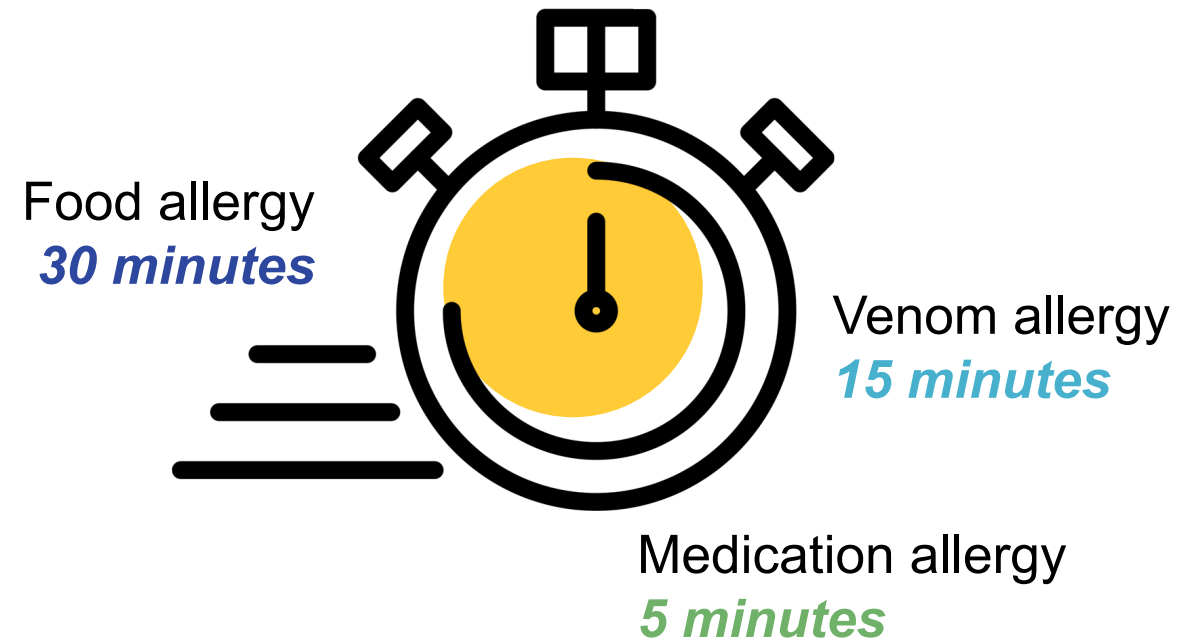
Future Population Expansion

neffy poised to be the first epinephrine product enabling the treatment of all serious systemic allergic reactions without hesitation, regardless of severity

- **First-line treatment** for severe Type I allergic reactions is epinephrine - the only medication today proven to stop a potentially life-threatening allergic reaction
- Delay in administration or failing to use epinephrine greatly increases the chance of hospitalization and associated with fatalities
- **Epinephrine needs to be given as soon as symptoms occur**
- IM injectable products have serious limitations that represent many reasons for patients' lack of readiness, hesitation and willingness to use



AVERAGE TIME TO RESPIRATORY OR CARDIAC ARREST DUE TO ANAPHYLAXIS



Physicians supportive of adopting *neffy* into practice



n = 75
Physicians

8.5 out of 10 rating

viewed as a major advance in therapy

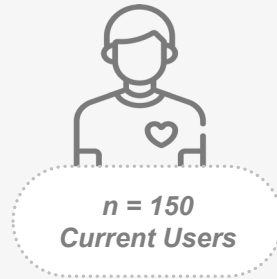
10 = MAJOR ADVANCE / 1 = NOT AN ADVANCE AT ALL

100%

WOULD PRESCRIBE *NEFFY* IF THEIR
PATIENTS ASKED FOR IT

*No difference in uptake of **neffy** by physician specialty*

Significant pent-up patient demand for *neffy* (Market Research)



n = 150
Current Users

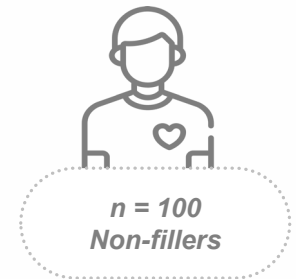
80%

OF PATIENTS STATED THEY
WOULD PREFER TO GET
NEFFY



75%

OF NON-FILLING PATIENTS
STATED THEY WOULD ASK THEIR
PHYSICIAN ABOUT NEFFY RX



n = 100
Non-fillers

65%

OF PEOPLE

WHO USE AN
OTC WOULD
USE NEFFY FIRST

69%

OF PEOPLE

WOULD USE NEFFY
SOONER THAN CURRENT
AUTOINJECTOR

88%

OF PEOPLE

WOULD BE MORE
WILLING TO USE
NEFFY IN PUBLIC

Physicians responded very positively to *neffy* with high interest in switching patients within the first year

Physicians viewed *neffy* as a **completely new category** of epinephrine device that eliminates most reasons why a patient doesn't carry today's epinephrine delivery device

”

This product is not a me-too.
It's a game-changer!

– Allergist

”

I can give this product to every person
on **Xolair or Dupilumab** or any of
the monoclonals.

– Allergist

”

This product will make the **current
needle injectors as dated a
technology** as a flip phone is today.

– Allergist

”

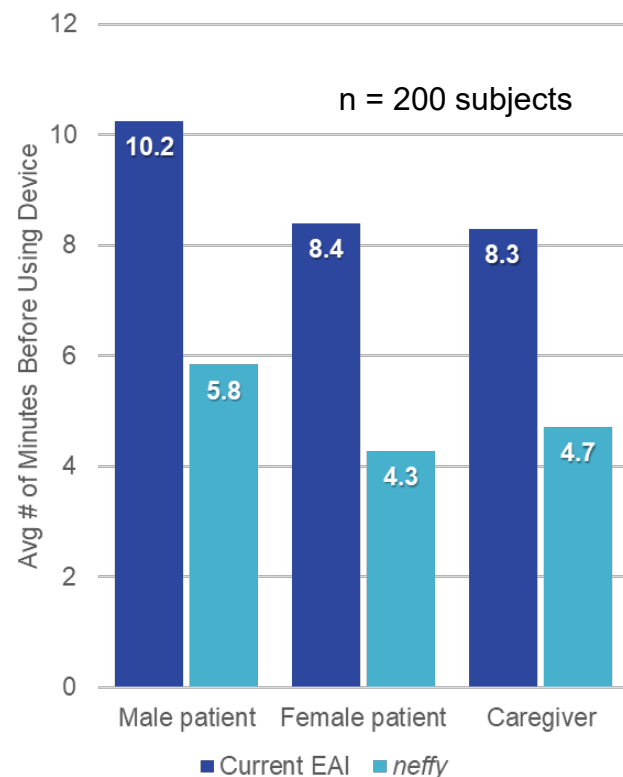
This is the only product I've seen that I
believe a teenager would carry.

– Pediatrician

Caregivers are enthusiastic about *neffy* and its benefits

Motivation to Use *neffy* Sooner

Usage Time: Current EAI vs *neffy*



This is fantastic.
Much easier than jabbing the thigh.

– Father



If I could trade in my EpiPen for this without it costing me a lot, I'd get it right away.

– Father



I want this. Is it available yet? Let me know when it is, I will literally call the doctor from my car.

– Mother



We are talking about someone's life and lifestyle here. **Great improvement.**

– Mother



This is awesome.
My daughter will love this.

– Father



I don't have a co-pay, but I'd get this for my daughters **even if I have to pay \$50.**

– Mother

Source: Consumer Quant Research, 2022

Q29/68. How long would you estimate it took from the time the symptoms started before you used your device?

Q75. The last time you/your child had an allergic reaction, you said you used your/your child's device within XX minutes. If you had had this epinephrine nasal spray device instead of your/your child's current device, how quickly do you believe you would have used it after your/your child's initial symptoms of the reaction?

Q76. On a scale of 1-10, how much impact would each of the following have to motivate you to use this epinephrine nasal spray device sooner than your/your child's current device?

Q77. On a scale of 1-10, how likely would each of the following be if you were to have this new epinephrine nasal spray device instead of your/your child's current device?

Payer research supports positive reimbursement environment

Key findings from discussions with ~50 decision-makers within the major payers and PBMs:

- Category is generally not restricted, unlike biologics and orphan disease drugs with high WACs
- Payers view **neffy** as a valuable and differentiated treatment option
- High likelihood of attaining favorable coverage (Tier 2 or 3) for ~80% of lives



*“This is a **game-changer**; it really addresses the unmet needs we currently have in this space, specifically the safety and tolerability issues.”*

– Payer

“Nasal delivery will overcome some negative perceived factors of an injection.”

– Payer

*“If this is priced properly, this could be a ‘**state-of-the-art therapy**’ for patients.”*

– PBM

“There is no value in delaying access to a product like this and nothing to prior authorize (PA). We can’t PA if the patient needs it.”

– PBM

US commercial preparedness efforts underway for potential 2023 launch

3.3M patients prescribed today, majority of patients and physicians responded favorably to neffy over auto-injectors, and 22M untreated patients with the potential to be activated



BUILD HEALTHCARE PROFESSIONAL AWARENESS

- Build trust in **neffy** as the new standard among allergists and pediatricians
- Target prescribers who can drive **neffy** market share and influence their peers
- Educate & motivate healthcare professionals to recommend **neffy** use earlier to prevent serious events



DRIVE CONSUMER EDUCATION

- Branded and unbranded campaigns
- Deploy online and social media and targeted DTC to influence **neffy** adoption
- Partner with advocacy organizations and influencers to drive education among patients and their caretakers



SECURE MARKET ACCESS

- Optimize contracting, co-pay support, and distribution model for **neffy** to support affordable access for all consumers
- Create peer-driven publications and HEOR* data to support proper use of epinephrine and highlight issues related to auto-injectors

* Health Economics and Outcomes Research (HEOR)

neffy is positioned to transform the treatment of serious allergic reactions

