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Corporate Presentation

February 2016

Forward-Looking Statements

This presentation contains “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995 regarding, among other things, clinical development plans, anticipated milestones, product candidate benefits, potential market size, product adoption, market positioning, competitive strengths, product development, and other clinical, business and financial matters. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or known or unknown risks or uncertainties materialize, actual results could vary materially. Risks and uncertainties include, but are not limited to, our limited operating history, our need for additional financing to achieve our goals, our dependence on our lead product AR101, the need for additional clinical testing of AR101, uncertainties relating to the regulatory process, uncertainties relating to the timing and operation of clinical trials, potential safety issues, possible lack of market acceptance of our product candidates, the intense competition in the biopharmaceutical industry, our dependence on exclusive third-party suppliers and manufacturers, and limitations on intellectual property protection. A further list and description of these risks, uncertainties and other factors can be found in our report on Form 10-Q for the quarter ended September 30, 2015. Copies of this filing are available online at www.sec.gov or www.aimmune.com. Any forward-looking statements made in this presentation speak only as of the date of the presentation. We do not undertake to update any forward-looking statements as a result of new information or future events or developments.

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Our Urgent Mission:

Reliable protection against accidental exposure
for the **millions of patients of all ages**
living with **serious, life-threatening food allergies**

Aimmune Investment Highlights

Public company focused on serious, life-threatening food allergies

- Peanut allergy is a serious chronic disease affecting all age groups
- Over 5M peanut-allergic patients in U.S. and Europe, 50% react to less than half a peanut

Lead program AR101: Robust clinical data in peanut allergy desensitization

- FDA Breakthrough Therapy and Fast Track Designations
- Phase 2 data: 100% of completers met primary endpoint (79% of ITT)
- Phase 2b data showed additional strong safety/tolerability and met higher efficacy bar

Potential near-term commercialization: Global Phase 3 underway

- Pivotal Phase 3 across 64 sites in 11 countries (U.S., Canada and EU); patients ages 4-55
- Targeting pivotal data in 2017 and BLA filing in 2018
- IP protection and full global rights to all programs

Capital and experience to deliver

- Seasoned team: Leaders with >30 approved NDAs, BLAs and MAAs
- Funded through pivotal data with ~$200M in cash and investments (12/31/15)

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There Is an Urgent Need for Food Allergy Treatment

Food Allergy is...

- **Prevalent:** 15 million people with food allergy; ~2 kids in every classroom
- **Expensive:** $25B in annual health system cost (200,000 ER visits)
- **Burdensome:** More Quality of Life impact than Type 1 Diabetes
- **Not treated:** Zero approved treatments*

Careful avoidance is not enough – one accident can be fatal

HEALTH September 21, 2015 4:12 pm Updated: September 21, 2015 9:32 pm

Canadian student dies after ordering smoothie on campus; suffers severe allergic reaction

HEALTH & MEDICINE JULY 30, 2013 12:00 AM

Years of caution about peanut allergy fails to save teen who died at Camp Sacramento

CBS NEWS / September 24, 2015, 5:23 PM

Colorado teen with peanut allergy dies after eating s'mores

Allergic reaction to peanut residue kills 22-year-old Twin Cities man

Days before, Bruce Kelly had eaten candy from the same container with no reaction, his mother said.

By Mary Lynn Smith Star Tribune | JANUARY 22, 2016 — 12:21PM

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Sources: FARE, Gupta (2013), Avery (2003), Cummings (2010)

* Available options are limited to food avoidance, use of antihistamines and rescue therapy (epinephrine injections)

Aimmune's Call to Action

FDA

NIH

FARE
Food Allergy Research & Education

STANFORD UNIVERSITY

Duke UNIVERSITY

UNIVERSITY OF ARKANSAS

- Aimmune grew out of a 2011 meeting with patient advocates, FDA, NIH, academic leaders, and industry representatives
- All stakeholders called for rigorous pharmaceutical development of an oral immunotherapy (OIT) product

OIT recognized as a promising approach to deliver reliable protection against accidental exposure for food allergy patients

Our Proprietary CODIT™ Platform Aims to Transform Treatment of Food Allergies

OIT has a published clinical history of safe, effective use

- Near 100% efficacy in patients who complete treatment
- No persistent adverse events in >100 years, >1,000 patients
- Effective across a broad range of food allergens

Despite great demand for OIT, no approved therapy

- Only ~40 U.S. centers have OIT programs
- Two-year wait at some centers; families moving for treatment
- 74% of surveyed allergists would adopt an FDA-approved drug*

CODIT™ makes OIT a practical reality

- **Standardized, regulated, biologic drug product**
- **Optimized protocol** to minimize adverse reactions while maintaining efficacy and reliable protection
- **Quality GMP manufacturing**; scale and stability testing
- **Tailored commercial offering** compatible with allergy practice to drive adoption
- **Support services** for patients and physicians to aid long-term compliance

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*Greenhawt (2014)

AR101 Is in Phase 3 for Peanut Allergy

Large market, life-threatening allergy

- >5M peanut allergic patients in U.S. and EU5 alone
- Peanut allergy accounts for most food allergy deaths

Convenient oral dosage form (BLA)

- Patent-protected and regulated as a biologic (BLA)
- Indexed to full suite of allergenic proteins
- FDA Breakthrough Therapy and Fast Track Designations

Robust clinical profile

- 100% of Phase 2 completers passed primary endpoint
- Benign safety and tolerability profile bolstered in Phase 2b

Near-term commercial opportunity

- Phase 3 PALISADE trial ongoing – targeting data in 2H 2017 and BLA filing in 2018
- >70% of surveyed allergists would adopt AR101 TPP

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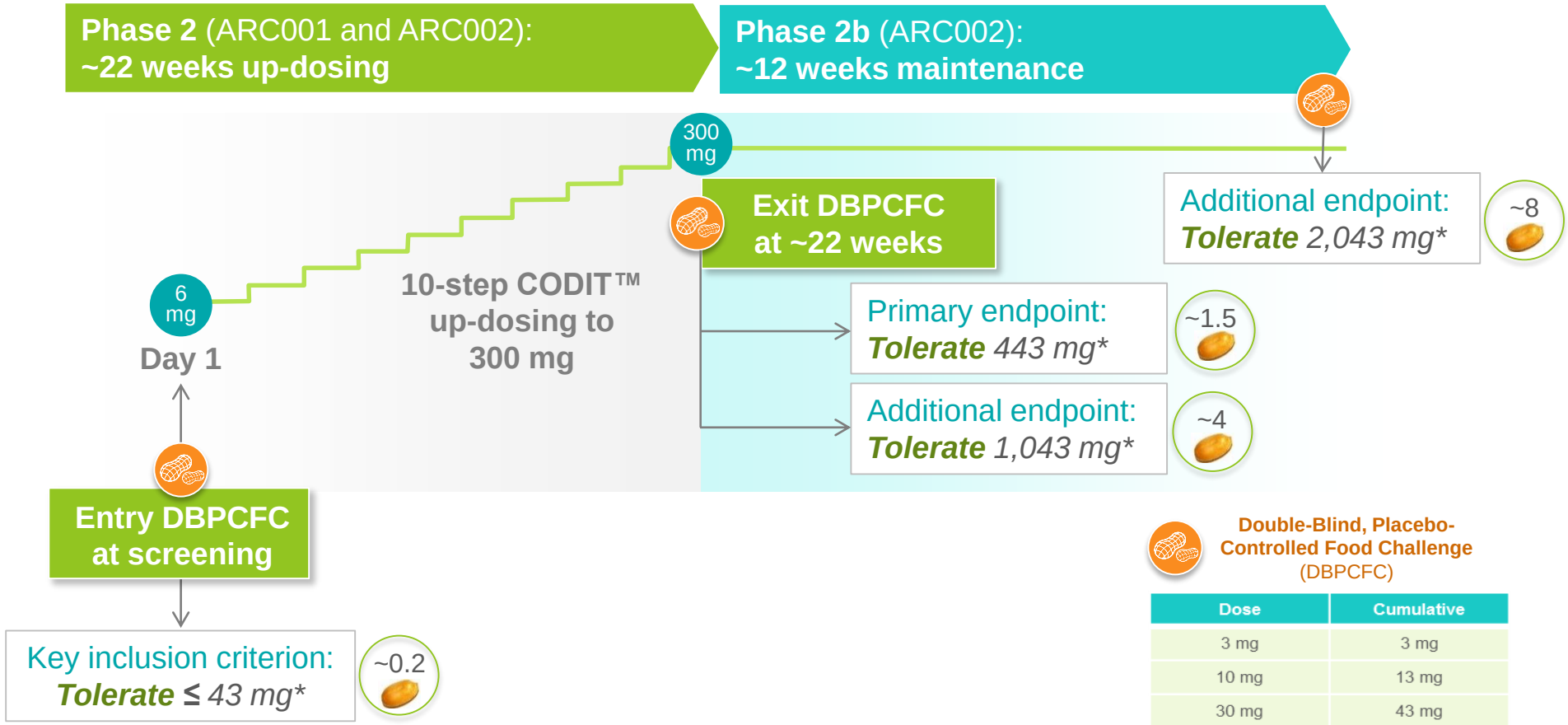
Source: FARE, Sicherer (2010), Venter C (2010), Hourihane JO (2007), Nicolaou (2010), World Bank, Euromonitor, interviews and analysis

AR101 Phase 2 Trials: Protection in 11 Visits Over <6 Months



Double-Blind, Placebo-Controlled Food Challenge (DBPCFC)

Dose	Cumulative
3 mg	3 mg
10 mg	13 mg
30 mg	43 mg
100 mg	143 mg
300 mg	443 mg
600 mg	1,043 mg
1,000 mg	2,043 mg

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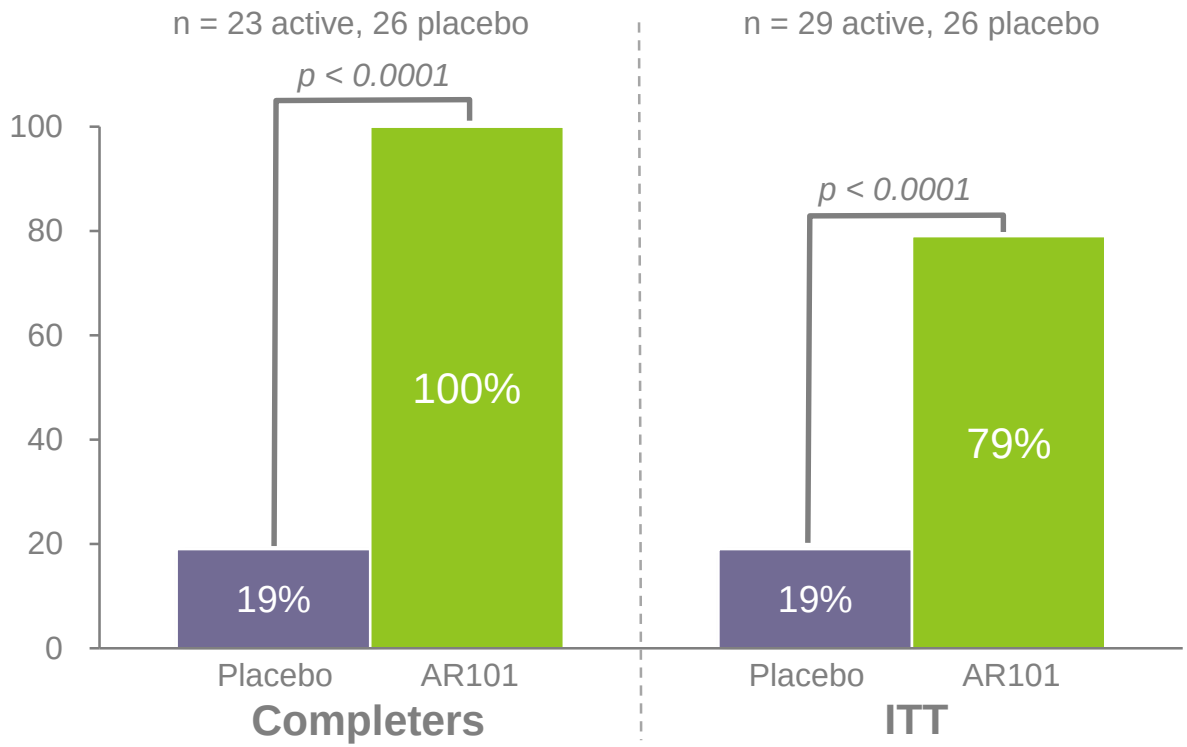
* Reflects cumulative dose in the DBPCFC; Tolerate = dose is tolerated with no dose-limiting symptoms

ARC001 Phase 2 Demonstrated AR101 Efficacy

Percent of patients tolerating 443 mg peanut protein (~1.5 peanuts) after ~22 weeks of treatment

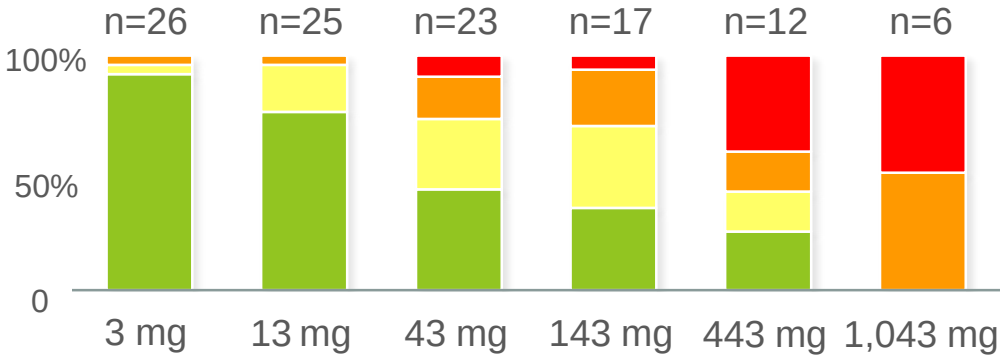


AR101 can deliver reliable protection with a patient-friendly dosing regimen

EAACI 2015. Burks, W., et al.

AR101 Prevented and Blunted Reactions to Clinically Relevant Amounts of Peanut Protein

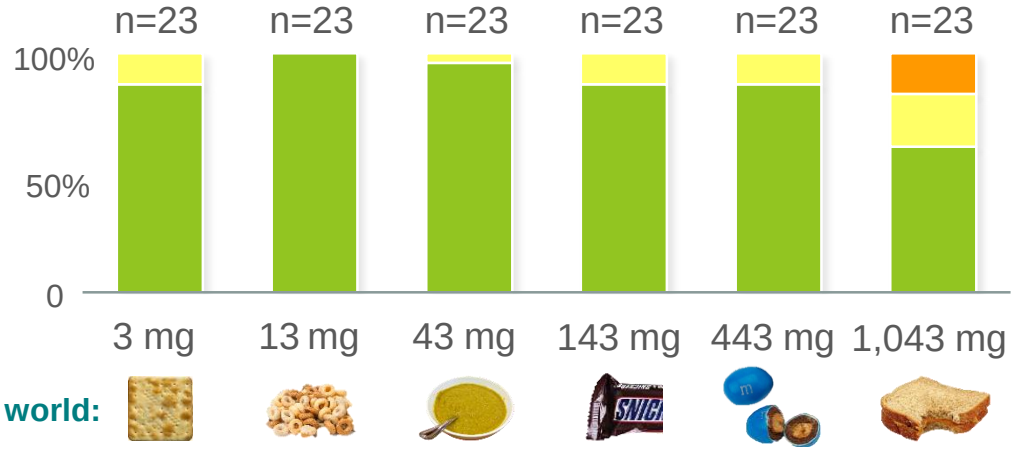
Placebo group: Symptom severity in food challenge at 6 months



Reactions requiring epinephrine

Placebo: 11 patients
(3 required 2 injections)

AR101 group: Symptom severity in food challenge at 6 months



Reactions requiring epinephrine

AR101: 2 patients
(0 required 2 injections)

Maximal symptom severity
None
Moderate
Mild
Severe

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EAACI 2015. Burks, W., et al.

AR101 Was Well-Tolerated in Phase 2

ARC001 Phase 2 demonstrated favorable safety and tolerability

- 23 of 29 patients completed treatment
- 6 early withdrawals due to moderate, reversible and self-limiting GI AEs
- No severe or life-threatening AEs
- ~95% of AEs graded mild; consistent with gentle stimulation of immune system
- Single episode of epinephrine use early in protocol (before desensitization); patient returned to study

Three-month continuation (ARC002) confirmed favorable safety and tolerability

- No treatment-related serious AEs
- Low incidence of AEs during 12 weeks of maintenance therapy, all mild

ARC002 expanded AR101 patient database to 55 and confirmed protection

- Substantial number of patients tolerated a 2,043 mg cumulative dose*
- No reactions to accidental peanut exposure on maintenance = Real-world safety

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* Reflects cumulative dose in the DBPCFC; Tolerate = dose is tolerated with no dose-limiting symptoms

Phase 3 Pivotal Trial for AR101
PALISADE (ARC003) to Support U.S. and EU Approvals

Palisade TRIAL

- **Multi-center**
  - 64 clinical sites in 11 countries (U.S./Canada/EU)
  - Study initiated December 2015
- **500 patients**
  - 400 patients ages 4-17
  - 100 patients ages 18-55
  - 3:1 randomization
- **Primary endpoint:** **Tolerate** 1,043 mg cumulative dose of peanut protein
- Pediatric study to include ages 1-3, after PALISADE

Regulatory progress in U.S. and EU

- ✓ Breakthrough Therapy Designation (ages 4-17)
- ✓ Fast Track Designation
- ✓ BLA Exclusivity
- ✓ Phase 3 protocol approved under IND
- ✓ EMA-approved Pediatric Investigation Plan (PIP)
- ✓ CTA approvals in four EU countries; others pending
- ✓ ***Jan 2016 FDA Allergenic Products Advisory Committee***

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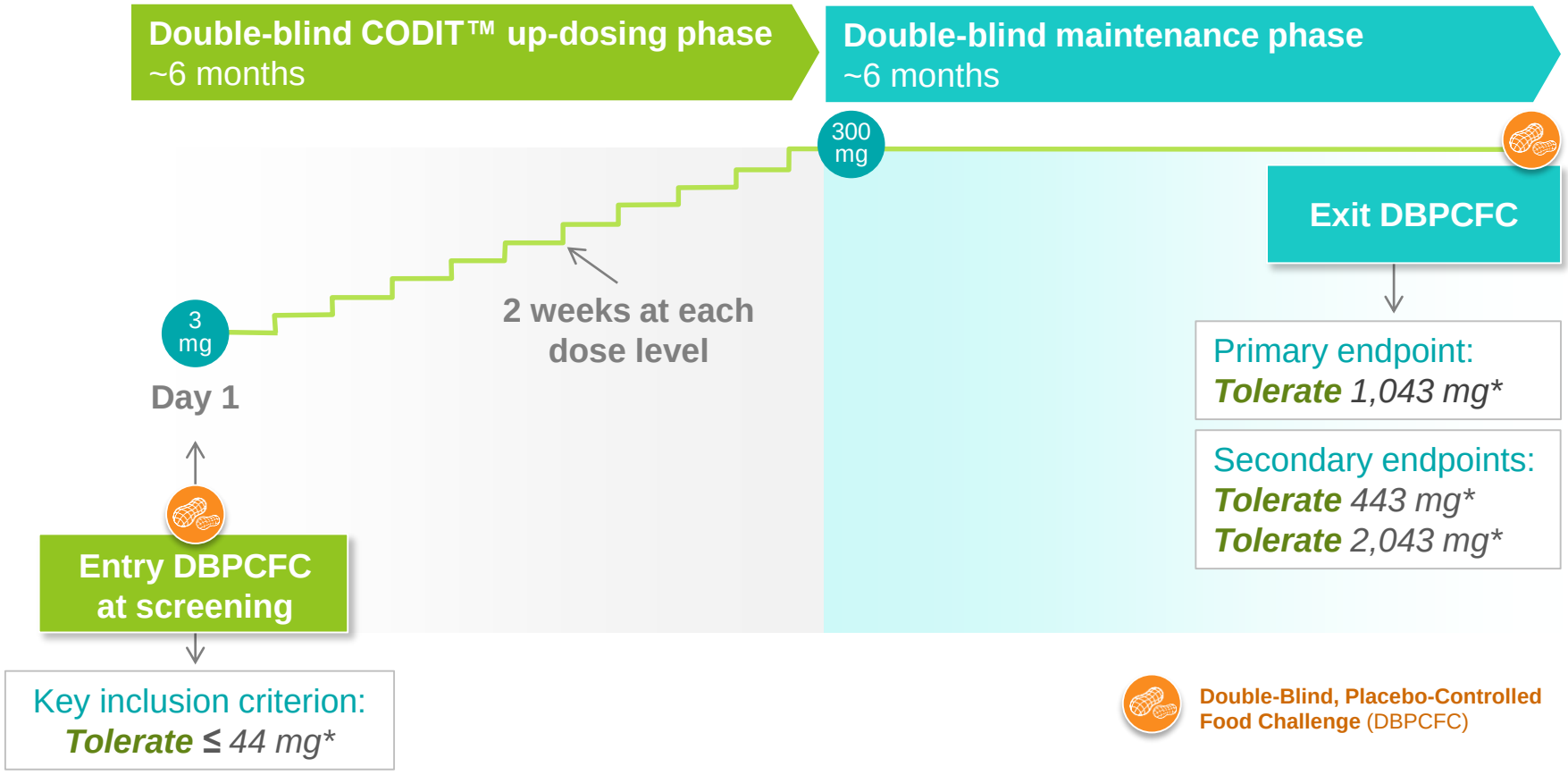
PALISADE Phase 3 Trial (ARC003) Builds on ARC001 and ARC002

Primary endpoint: *Tolerate exit DBPCFC at 1,043 mg cumulative (600 mg dose)*



* Reflects cumulative dose in the DBPCFC; Tolerate = dose is tolerated with no dose-limiting symptoms

PALISADE Consistent with Discussion at FDA AdComm in Jan 2016

Discussion points at AdComm	Alignment with PALISADE
Need to address at-risk population – most fatalities in teens and young adults	**Broad patient reach** – patients ages 4-55 enrolled; including patients with recent history of ER visits
Food Challenge as an approvable efficacy endpoint	**DBPCFC used** at entry and exit
Defined protection level, not just change from baseline	Completers assessed for **cumulative tolerated dose** at study exit
Meaningful level of protection – e.g., measured in number of peanuts tolerated	Primary endpoint: **tolerate 1,043 mg peanut protein (~ 4 peanuts)**
Reduction in symptom severity	**Demonstrated reduction in symptom severity** in Phase 2 – endpoint in Phase 3

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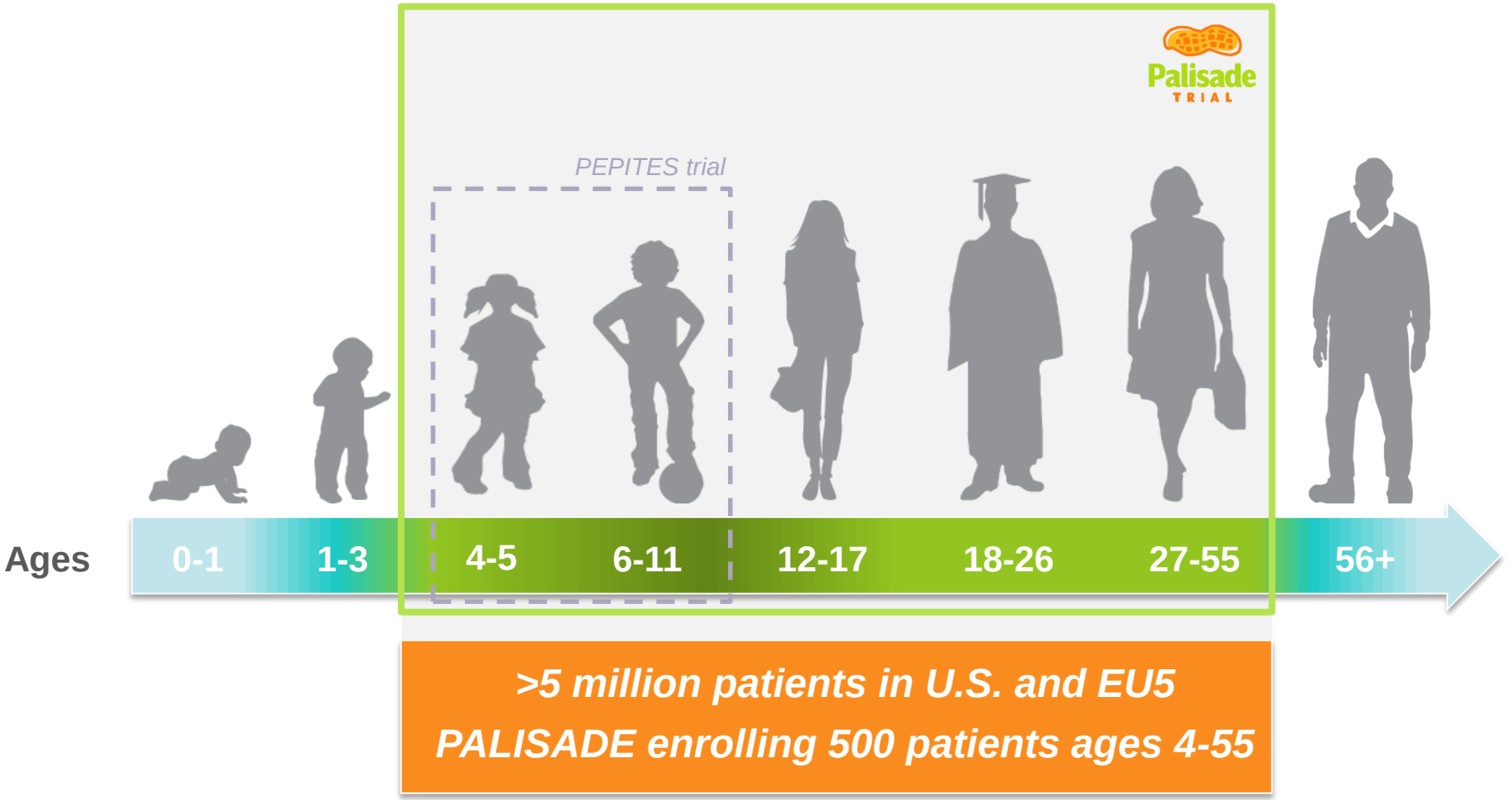
Demonstrated Efficacy Across All Ages Is Important as Peanut Allergy Rarely Resolves with Age



Note: Green shading on age timeline indicates age cohorts included in the AR101 Phase 3 PALISADE trial; published literature supports OIT effectiveness without a drop off in age and past age 55

AR101 Has the Attributes of a Successful Therapy

Highly effective

- 100% tolerate 443 mg* (~1.5 peanuts) at 6 month challenge
- 78% tolerate 1,043 mg* (~4 peanuts) at 6 month challenge
- Substantial number tolerate 2,043 mg** (~8 peanuts) at 12 month challenge

Real-world safety

- No severe or life-threatening AEs from treatment; ~95% of AEs are mild*
- High margin of reliable protection against accidental exposure

Efficacy across ages

- Ages 4-21 in Phase 2 trial
- Ages 4-55 in Phase 3 trial

Practical regimen

- Convenient, once-daily, oral dosing
- Initial investment of time can lead to long-term protection
- Close interaction with allergist provides reassurance

Fit with allergy practice

- Protocol is similar to treatments for non-food allergies
- >70% of surveyed allergists would definitely or likely adopt AR101

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* Based on data from the ARC001 Phase 2 trial
** Based on data from the ARC002 Phase 2b trial

AR101 Market Protection Goes Beyond Traditional IP

Inherent asset strength

- Biologic data exclusivity (BLA)
- Intellectual property (formulations, manufacturing)
- Exclusive commercial supply agreement for source material

Manufacturing expertise and infrastructure

- Leasing 20,000 sq. ft. manufacturing plant in Florida
- Quality GMP manufacturing; QC/QA focused on scale and stability
- Tightly controlled know-how, trade secrets

Looking forward — building brand loyalty

- CODIT™ ensures product quality, standardization and reliability
- Ease of use and value for physicians and HCPs
- Support for HCPs, patients and caregivers

Initial AR101 patent issued in 4Q2015; others in process

A Strong Team with Deep Experience in Drug Development and Approval

LEADER	ROLE	EXPERIENCE
Stephen Dilly, M.B.B.S. , Ph.D.	Chief Executive Officer	CHIRON, Genentech, SmithKline Beecham, APT
Jeffrey Knapp	Chief Operating Officer	Schering-Plough, Lilly, ADAMAS, AFFYMAX
Warren DeSouza	Chief Financial Officer	ONYX PHARMACEUTICALS An Amgen subsidiary, Deloitte.
Sue Barrowcliffe	General Manager of Europe	CHIRON, APT, SmithKline Beecham, BRITISH BIOTECH
Robert Elfont, M.D., Ph.D.	Chief Medical Officer	Pfizer, JOHNS HOPKINS MEDICINE, Roche, TEVA
Mary Rozenman, Ph.D.	SVP, Corporate Development and Strategy	McKinsey&Company, Longitude CAPITAL
William Turner	SVP, Global Regulatory and Quality	MedImmune, ALLERGAN, DYNAVAX INNOVATING IMMUNOLOGY

Executive team of drug developers with 30+ NDAs, BLAs and MAAs

AR101 for Peanut Allergy Is the First Application of the CODIT™ Platform

		Pre-IND	Phase 2	Phase 3
AR101	**Peanut allergy**	FDA Breakthrough Therapy and Fast Track Designations		
Program 2	**Egg allergy**			
Program 3	**Undisclosed**			

Four drivers of growth:

1) Deliver AR101
2) Maximize AR101
3) Maximize CODIT™
4) Explore complementary technologies

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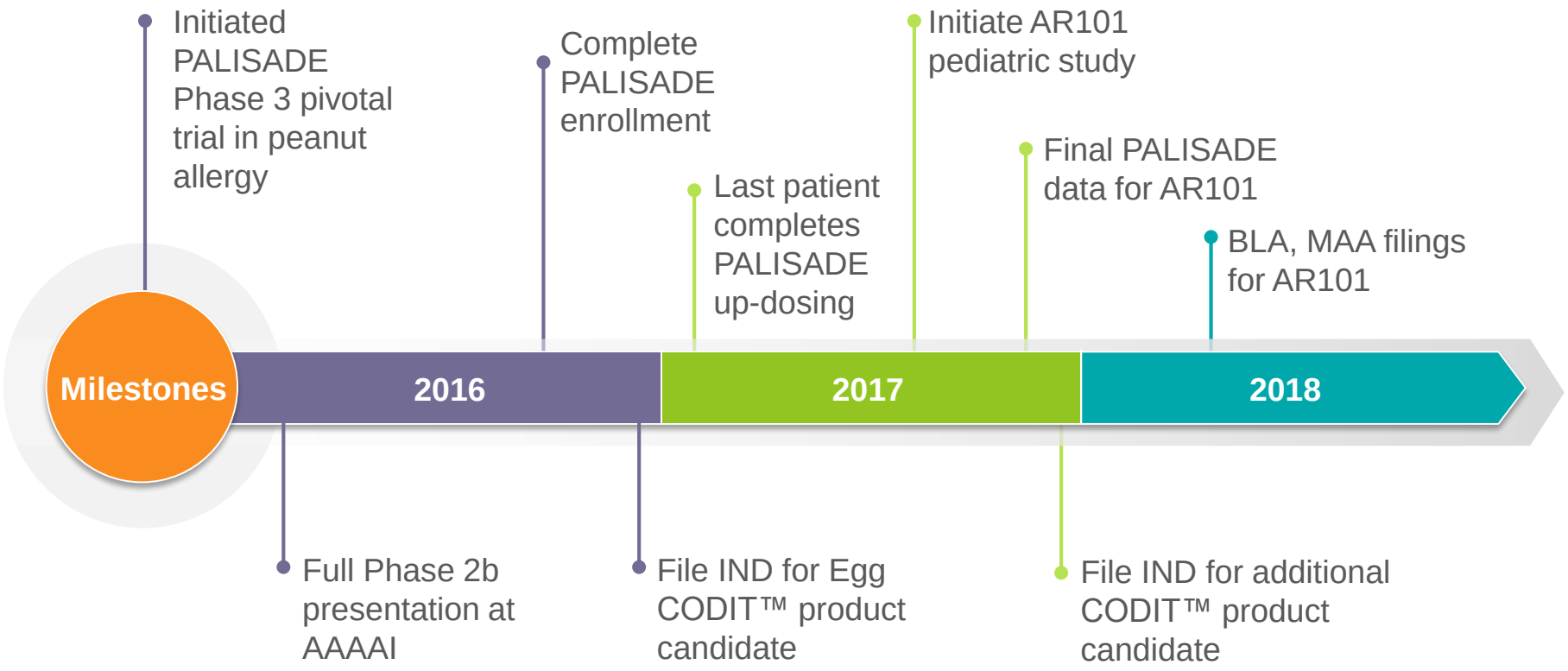
Anticipated Milestones



With $200M in cash* we are well capitalized to deliver on our mission

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*As of December 31, 2015

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Thank you!