AnaptysBio

# Etokimab (Anti-IL-33) Program

*Phase 2a Eosinophilic Asthma Clinical Trial*

*Interim Data Update*

*September 24th 2018*

**Nasdaq: ANAB**

# Safe Harbor Statement

This presentation and the accompanying oral presentation contain “forward-looking” statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to: the timing of the release of data from our clinical trials, including etokimab’s Phase 2b clinical trial in moderate-to-severe adult atopic dermatitis patients, etokimab’s Phase 2 clinical trial in adult chronic rhinosinusitis with nasal polyps patients and ANB019’s Phase 2 trials in GPP and PPP patients; the design of and our ability to launch a Phase 2 clinical trial of etokimab in adult chronic rhinosinusitis with nasal polyps patients, a Phase 2b clinical trial of etokimab in severe eosinophilic asthma patients and a Phase 2 clinical trial of ANB019 in PPP patients; the timing of detailed data presentation of etokimab’s Phase 2a clinical trial in severe adult eosinophilic asthma patients; the timing of an IND filing for an anti-inflammatory checkpoint modulator; and the success of our partnership with TESARO and Celgene. Statements including words such as “plan,” “continue,” “expect,” or “ongoing” and statements in the future tense are forward-looking statements. These forward-looking statements involve risks and uncertainties, as well as assumptions, which, if they do not fully materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements are subject to risks and uncertainties that may cause the company’s actual activities or results to differ significantly from those expressed in any forward-looking statement, including risks and uncertainties related to the company’s ability to advance its product candidates, obtain regulatory approval of and ultimately commercialize its product candidates, the timing and results of preclinical and clinical trials, the company’s ability to fund development activities and achieve development goals, the company’s ability to protect intellectual property and other risks and uncertainties described under the heading “Risk Factors” in documents the company files from time to time with the Securities and Exchange Commission (SEC). These forward-looking statements speak only as of the date of this presentation, and the company undertakes no obligation to revise or update any forward-looking statements to reflect events or circumstances after the date hereof.

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# AnaptysBio: Clinical-Stage Antibody Development Company

*Focused on Novel Antibody Medicines for Severe Inflammatory Diseases*

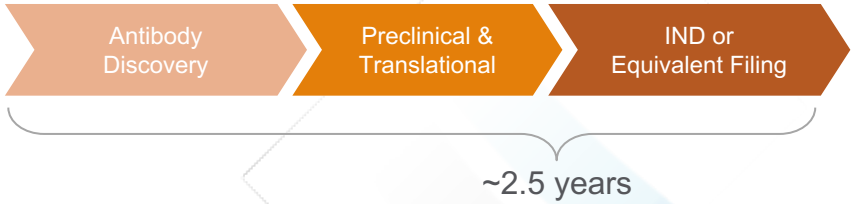
## Wholly-Owned Anti-Inflammatory Pipeline

**Etokimab (ANB020, Anti-IL-33)**
Atopic Dermatitis, Eosinophilic Asthma & Chronic Rhinosinusitis with Nasal Polyps

**ANB019 (Anti-IL-36R)**
Generalized Pustular Psoriasis & Palmoplantar Pustulosis

**Checkpoint Modulator**
Inflammatory Diseases

## Rapid Antibody Generation Platform Technology




## *Antibody Medicines For Severe Diseases*

## Validating Product Partnerships Generated ~$75MM*

- ✓ TESARO
- ✓ Celgene

## 4 Additional Efficacy Readouts Anticipated By End 2019

- Etokimab Eosinophilic Asthma Phase 2a: Top-line data today
- ANB019 Generalized Pustular Psoriasis Phase 2: Top-line data in early 2019
- Etokimab Atopic Dermatitis Phase 2b: Top-line data in H2 2019
- Etokimab Chronic Rhinosinusitis With Nasal Polyps Phase 2: Top-line data in H2 2019
- ANB019 Palmoplantar Pustulosis Phase 2: Top-line data in H2 2019

* As of June 30th 2018

# Wholly-Owned and Partnered Product Pipeline

*6 AnaptysBio-Generated Antibodies Advanced to Clinic Since Q1 2016*

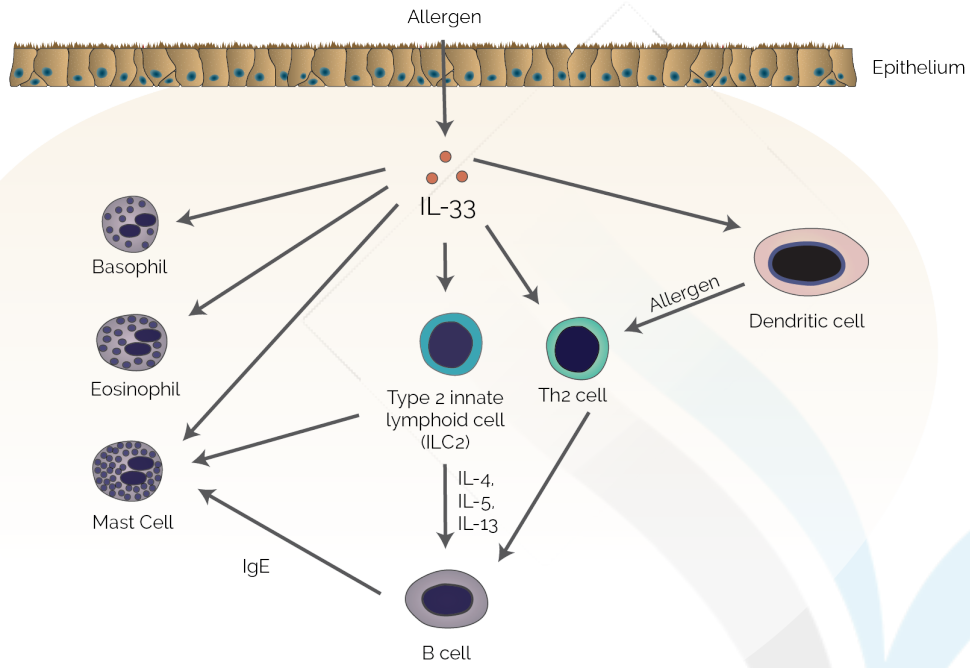
| Program | Therapeutic Indication | Development Stage & Anticipated Milestones | Commercial Rights |
|---|---|---|---|
| | | Discovery / Preclinical / Phase 1 / Phase 2 / Phase 3 | |
| Etokimab (ANB020): Anti-IL-33 | Moderate-to-Severe Atopic Dermatitis | Phase 2a Data Presented at AAD and EAACI 2018; ATLAS: Phase 2b Top-Line Data H2 2019 | AnaptysBio |
| | Eosinophilic Asthma | Phase 2a Top-Line Data Sep 2018; Phase 2b To Be Initiated in 2019 | |
| | Chronic Rhinosinusitis With Nasal Polyps | ECLIPSE: Phase 2 To Be Initiated Top-Line Data H2 2019 | |
| ANB019: Anti-IL-36R | Generalized Pustular Psoriasis | Phase 1 Data Presented at EAACI 2018; GALLOP: Phase 2 Top-Line Data Early 2019 | |
| | Palmoplantar Pustulosis | POPLAR: Phase 2 Top-Line Data H2 2019 | |
| Anti-Inflammatory Checkpoint Modulator | Inflammation | IND Filing H2 2019 | |
| TSR-042: Anti-PD-1 | Immuno-Oncology | Registration Trial Ongoing | TESARO |
| TSR-022: Anti-TIM-3 | Immuno-Oncology | TSR-042 Combination Trial Ongoing | |
| TSR-033: Anti-LAG-3 | Immuno-Oncology | TSR-042 Combination Trial Ongoing | |
| TSR-075: Anti-PD-1/ LAG-3 Bispecific | Immuno-Oncology | IND-Enabling Studies Ongoing | |
| CC-90006: Anti-PD-1 Agonist | Psoriasis | Ongoing | Celgene |
| Undisclosed | Inflammation | Ongoing | |

**All programs generated internally using AnaptysBio's proprietary antibody generation platform technology**

# Etokimab: First-in-Class Anti-IL-33 Antibody

*Broadly Applicable to Atopic Diseases*

- IL-33 is an upstream driver of atopic disease
  - Human genetics validate key role of IL-33 in atopic dermatitis and asthma
  - Pro-inflammatory cytokine released upon allergen contact with epithelium
  - Activates downstream release of IL-4, IL-5 and IL-13
  - Modulates IgE-mediated mast cell and basophil degranulation
- Etokimab is a potentially first-in-class anti-IL-33 cytokine antibody
  - Phase I healthy volunteer trial completed without dose-limiting toxicities
  - AnaptysBio pursuing development in moderate-to-severe atopic dermatitis, eosinophilic asthma and chronic rhinosinusitis with nasal polyps




IL-33 acts as a gatekeeper of allergic response with demonstrated activity in the initiation (activation of ILC2 cells)[1], propagation (activation of allergen-specific T and B cells)[2] and amplification (degranulation of mast cells and basophils)[3].


1. Cayrol et al. *Curr Opin Immunol* (2014) 31:31
2. Peine et al. Trends Immunol (2016) 37(5):321
3. Saluja *et al. Clin Transl Allergy (2015) 5:33*

# Eosinophilic Asthma

*Focus on Severe Patients Inadequately Controlled With ICS/LABA*

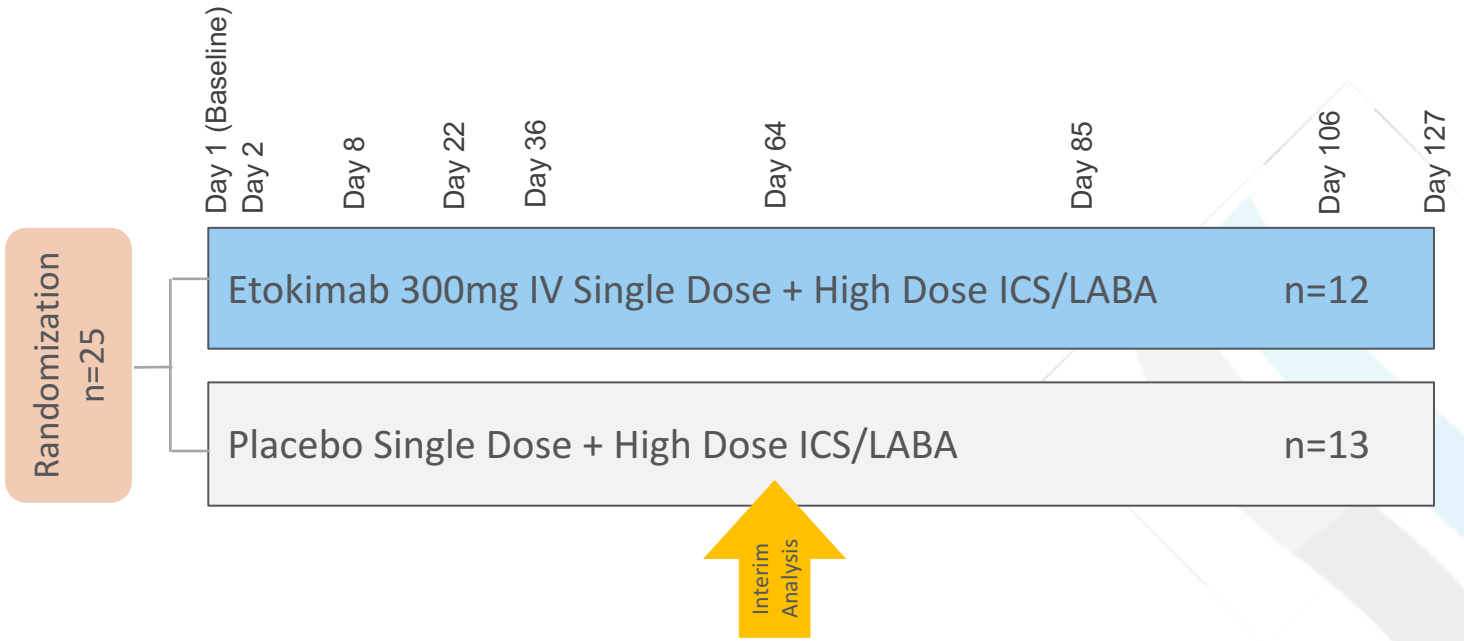
- Eosinophilic asthma is a debilitating, chronic atopic disease
  - Decreased lung function associated with poor quality-of-life and exacerbations
  - Often concomitant with other atopic diseases, such as chronic rhinosinusitis with nasal polyps and atopic dermatitis
- Significant unmet medical need
  - ~1.1 million US adults diagnosed with severe asthma and inadequately controlled with inhaled corticosteroids and long-acting-beta-agonists (ICS/LABA)
  - Approximately 50% estimated to be eosinophilic asthmatics

# Etokimab Clinical Trials

| Subjects | Trial | Trial Design | Key Clinical Endpoint(s) | Timing |
|---|---|---|---|---|
| Healthy Volunteers | Phase 1 | n=96, SAD and MAD cohorts, IV and SC dosing, randomized, placebo-controlled | Safety, PK and PD | Top-line data announced October 2016<br>Detailed data presented at AAD and AAAAI 2017 |
| Moderate-to-Severe Adult Atopic Dermatitis | Phase 2a | n=12, single IV dose | Eczema Area & Severity Index (EASI) | Top-line data announced October 2017<br>Detailed data presented at AAD and EAACI 2018 |
| | ATLAS<br>Phase 2b | n=300, SC multi-dose, randomized, placebo-controlled | EASI | Anticipate top-line data in H2 2019 |
| Moderate-to-Severe Baseline Adult Peanut Allergy | Phase 2a | n=20, single IV dose, randomized, placebo-controlled | Oral Food Challenge (OFC) | Top-line data announced March 2018<br>De-prioritized for commercial reasons |
| Eosinophilic Asthma | Phase 2a | n=25, single IV dose, randomized, placebo-controlled | Forced Expiratory Volume in 1 Second (FEV1) | Top-line data announced today<br>Detailed data presentation anticipated in 2019 |
| | Phase 2b | Undisclosed | Undisclosed | Anticipate initiation in 2019 |
| Adult Chronic Rhinosinusitis with Nasal Polyps (CRSwNP) | ECLIPSE<br>Phase 2 | n=100, SC multi-dose, randomized, placebo-controlled | Nasal Polyps Score (NPS); Sino-Nasal Outcome Test-22 (SNOT-22) | Anticipate top-line data in H2 2019 |

# Etokimab Eosinophilic Asthma Phase 2a Trial

*Single Dose of Etokimab or Placebo Administered on Day 1*




| | |
|---|---|
| Patient Population | Adults with severe asthma (according to GINA 2016)<br>Pre-bronchodilator FEV1 <80% of predicted<br>Blood eosinophils ≥300 cells/microliter<br>≥1 asthma exacerbation in past year requiring rescue medication<br>Stably maintained on ICS/LABA dose for at least 3 months prior to screening |
| Key Endpoints | Efficacy: % change in FEV1 relative to baseline<br>Biomarker: change in blood eosinophil levels<br>Safety |

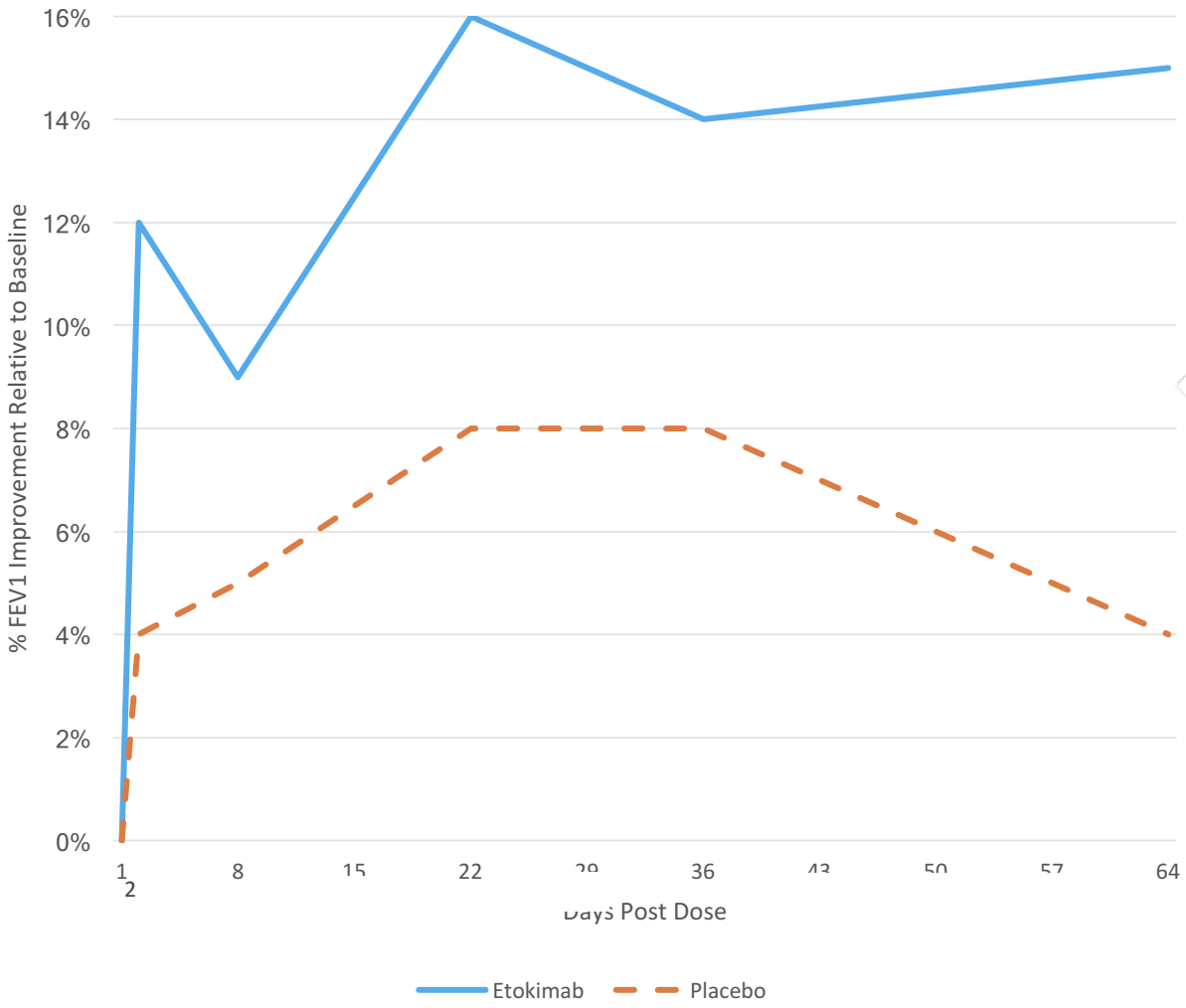
ClinicalTrials.gov: NCT03469934

# Key Baseline Parameters

| Average Baseline Parameters of Enrolled Patients (Day 1 Pre-Dose) | Etokimab Arm | Placebo Arm |
|---|---|---|
| n | 12 | 13 |
| Blood Eosinophils per microliter | 545 | 705 |
| FEV1 (Liters) | 2.5 | 2.5 |
| % Predicted FEV1 | 65% | 66% |
| Age (years) | 41 | 36 |
| Male % | 75% (9 of 12) | 69% (9 of 13) |

# % FEV1 Improvement Relative to Baseline After Single Dose

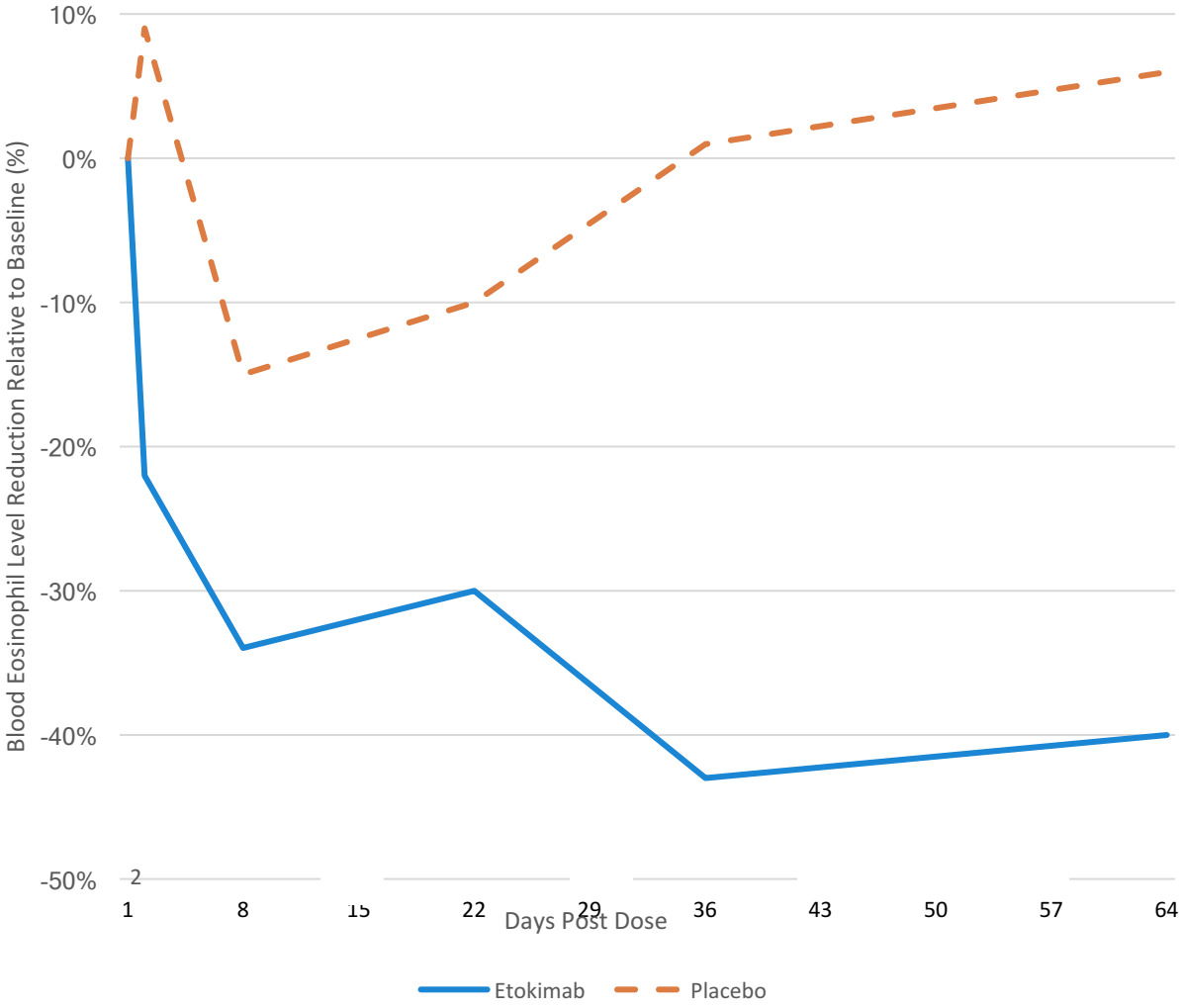
*Rapid and Sustained FEV1 Improvement Post-Etokimab Administration*




| Timepoint | Etokimab | Placebo | Net |
|---|---|---|---|
| Day 1 (Baseline) | 0% | 0% | 0% |
| Day 2 | 12% | 4% | 8% |
| Day 8 | 9% | 5% | 4% |
| Day 22 | 16% | 8% | 8% |
| Day 36 | 14% | 8% | 6% |
| Day 64 | 15% | 4% | 11% |

# Blood Eosinophil Reduction Relative to Baseline After Single Dose

*Correlates with FEV1 Improvement and Consistent With Phase 2a Atopic Dermatitis Trial*




| Timepoint | Etokimab | Placebo | Net |
|---|---|---|---|
| Day 1 (Baseline) | 0% | 0% | 0% |
| Day 2 | -22% | 9% | -31% |
| Day 8 | -34% | -15% | -19% |
| Day 22 | -30% | -10% | -20% |
| Day 36 | -43% | 1% | -44% |
| Day 64 | -40% | 6% | -46% |

# Eosinophilic Asthma Phase 2a Day 64 Interim Analysis

*Supports Advancement of Etokimab Into Phase 2b Eosinophilic Asthma Trial*

## *Interim Analysis Summary*

- Etokimab demonstrated proof-of-concept in eosinophilic asthma
- Single dose of etokimab resulted in rapid and sustained improvement in FEV1 over placebo
- Blood eosinophil biomarker reduction correlated with FEV1 improvement and is consistent with prior etokimab Phase 2a atopic dermatitis trial
- Etokimab was generally well-tolerated and no serious adverse events reported
  - No treatment-emergent adverse events were deemed to be etokimab-related
  - The most frequent treatment-emergent adverse events reported were single occurrences of moderate strep throat in two etokimab-dosed patients and single occurrences of mild vomiting in two placebo-dosed patients
  - No exacerbations or rescue therapy usage was reported

## *Next Steps*

- Complete ongoing Phase 2a trial and present detailed data at a medical conference in 2019
- Initiate Phase 2b randomized, double-blinded, placebo-controlled, multi-dose trial of etokimab in eosinophilic asthma during 2019

# Anticipated Milestones

*4 Additional Efficacy Readouts Anticipated By End 2019*

| Program | Milestone | Timing |
|---|---|---|
| **Etokimab (anti-IL-33)** | Moderate-to-Severe Adult Atopic Dermatitis Phase 2a Trial | Top-line data announced October 2017<br>Detailed data presented at AAD and EAACI 2018 |
| | ATLAS: Moderate-to-Severe Adult Atopic Dermatitis Phase 2b Trial | Initiated H1 2018<br>Top-line data anticipated in H2 2019 |
| | Severe Adult Eosinophilic Asthma Phase 2a Trial | Top-line data presented today<br>Detailed data to be presented in 2019 |
| | Eosinophilic Asthma Phase 2b Trial | To be initiated in 2019 |
| | ECLIPSE: Adult Chronic Rhinosinusitis with Nasal Polyps Phase 2 Trial | To be initiated by end 2018<br>Top-line data anticipated in H2 2019 |
| **ANB019 (anti-IL-36R)** | Healthy Volunteer Top-line Phase I Trial | Top-line data announced November 2017<br>Detailed data presented at EAACI 2018 |
| | GALLOP: GPP Phase 2 Trial | Initiated H1 2018<br>Top-line data anticipated in early 2019 |
| | POPLAR: PPP Phase 2 Trial | Initiated H2 2018<br>Top-line data anticipated in H2 2019 |

**Approximately $300MM in cash, cash equivalents and investments as of June 30th 2018**

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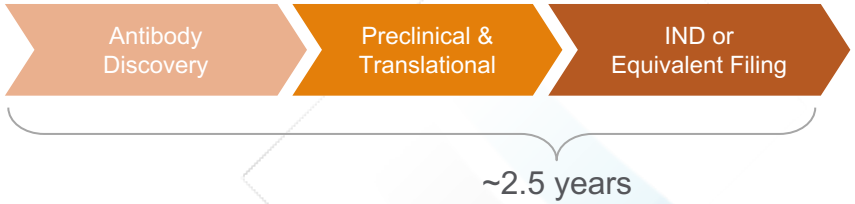


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