Avalo Therapeutics, Inc.

(AVTX)

Corporate Presentation

September 2023

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Forward-Looking Statements

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These statements are based upon the current beliefs and expectations of Avalo's management but are subject to significant risks and uncertainties, including: Avalo's debt and cash position and the potential need for it to raise additional capital; drug development costs, timing of trial results and other risks, including reliance on investigators and enrollment of patients in clinical trials, which might be slowed by the COVID-19 pandemic or other national or global health emergencies; reliance on key personnel; regulatory risks; general economic and market risks and uncertainties, including those caused by the COVID-19 pandemic and the war in Ukraine; and those other risks detailed in Avalo's filings with the Securities and Exchange Commission. Actual results may differ from those set forth in the forward-looking statements. Except as required by applicable law, Avalo expressly disclaims any obligations or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Avalo's expectations with respect thereto or any change in events, conditions or circumstances on which any statement is based.

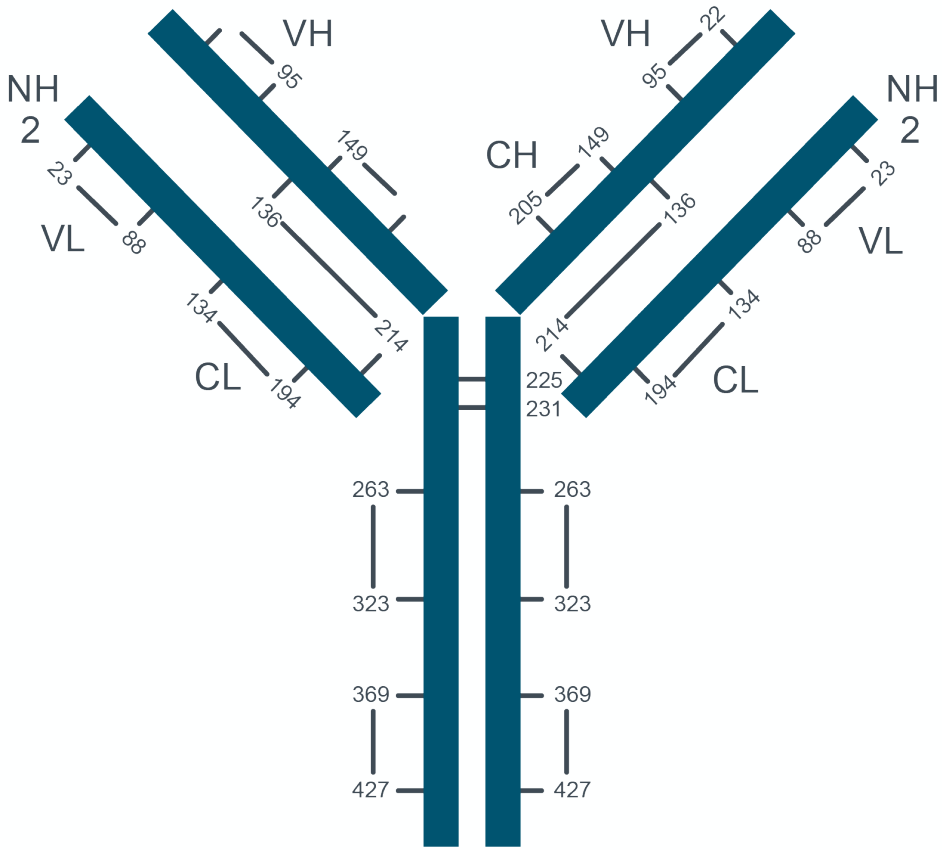
Avalo Therapeutics (AVTX)

- Portfolio emphasizing potential high value, first-in-class biologics focused on dysregulated inflammation via the LIGHT-signaling network
- AVTX-002, quisovalimab (anti-LIGHT mAb) – Positive proof of concept in COVID-19 ARDS. Positive trends in Crohn's Disease and NEA sub-population.
- AVTX-008 (BTLA agonist fusion protein) – IND enabling stage
- Exclusive consulting arrangement with Carl Ware, PhD, Sanford Burnham Prebys (discoverer of the LIGHT-signaling network) and Head of Avalo SAB
- Near term catalysts, subject to funding: 1) Initiate quisovalimab Phase 2 POC placebo-controlled trial in UC and 2) File IND for AVTX-008

BTLA; B and T Lymphocyte Attenuator; **COVID-19 ARDS,** SARS-COV2 associated acute respiratory distress syndrome (ARDS); **IND;** investigational new drug; **LIGHT, L**ymphotoxin-like, exhibits **I**nducible expression, and competes with HSV **G**lycoprotein D for **H**VEM, a receptor expressed by **T** lymphocytes; **mAb,** monoclonal antibody; **NEA,** non-eosinophilic asthma; **POC,** Proof of concept studies; **SAB,** Scientific Advisory Board; **UC,** ulcerative colitis

AVTX-002 (quisovalimab): First-in-Class Neutralizing Anti-LIGHT mAb

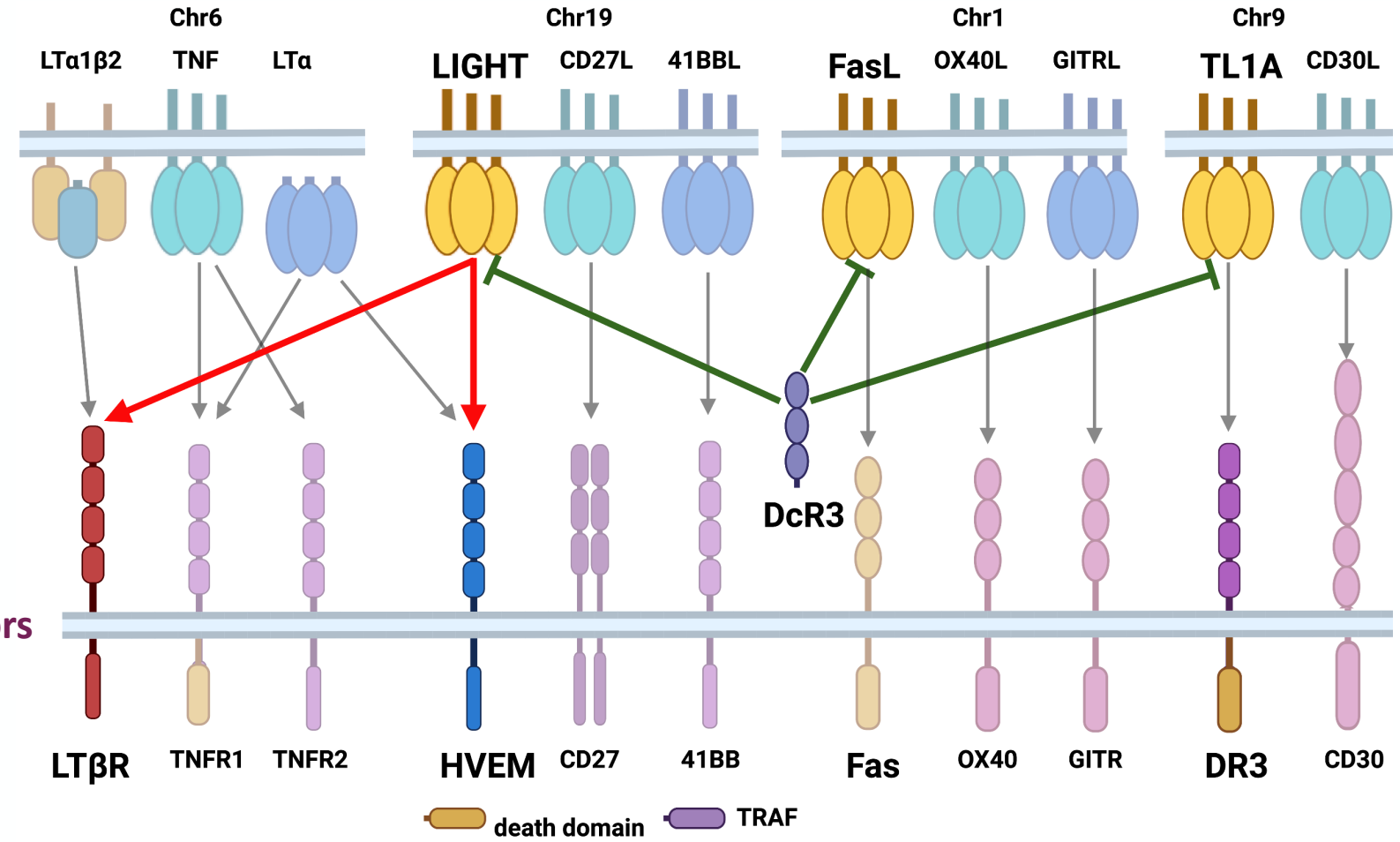
- Fully human monoclonal antibody to LIGHT
- CMC at 2,000 L scale; 6-month toxicology completed
- Positive proof of concept in COVID-19 ARDS
- Positive Phase 2 trends:
  - Crohn's Disease
  - NEA in sub-population of patients with elevated baseline LIGHT levels
- Strong preclinical and clinical rationale to support UC as next indication



CMC, Chemistry, manufacturing and control

TNF SuperFamily of Ligands (*TNFSF*) and Receptors (*TNFRSF*)

Inflammation, Immunoregulation and Homeostasis



- LIGHT is a member of a select group of key immunomodulator cytokines (TL1A, FasL) that are "regulated" by Decoy Receptor 3 (DcR3)
- DcR3 loss of function has been associated with autoimmune diseases including Crohn's disease

C. F. Ware, Ruddle, N.H. TNF Superfamily of Cytokines and Receptors. M. F. Flajnik ed. *Paul's Fundamental Immunology.* Publisher: Wolters Kluwer Health 2022 8th ed. Vol. Ch 10, 308-343.
Cardinale CJ, et al.,Targeted resequencing identifies defective variants of decoy receptor 3 in pediatric-onset inflammatory bowel disease. Genes Immun. 2013 Oct;14(7):447-52. doi: 10.1038/gene.2013.43. Epub 2013 Aug 22.

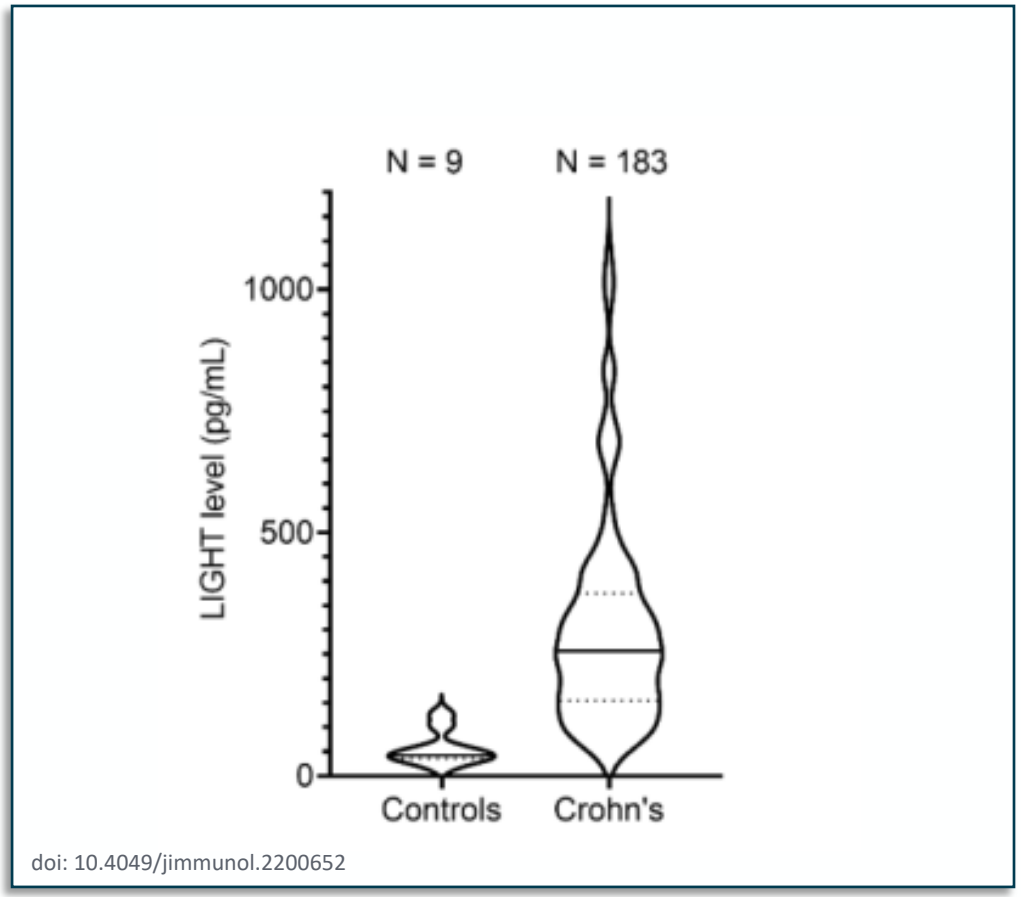
LIGHT in IBD

There are multiple lines of evidence regarding the involvement of LIGHT in IBD

- Animal models of IBD demonstrate:
  - LIGHT overexpression leads to intestinal inflammation[1]
  - Anti-LIGHT treatment amelioration of inflammation[2]
- Patient data demonstrate:
  - Elevated serum levels of LIGHT in Crohn's Disease and UC patients[3]
  - High LIGHT mRNA levels were detected in human inflamed intestinal tissue compared to control[4]
  - Upregulation of LIGHT is associated with Crohn's disease severity[5]
  - Clinically meaningful mucosal healing signal observed in Avalo's open-label POC study in CD[6]

[1]doi:10.4049/jimmunol.167.11.6330; [2]doi:10.1111/j.1365-2567.2009.03131; [3]doi: 10.4049/jimmunol.2200652; [4]doi: 10.4049/jimmunol.174.2.646; [5]doi: 10.4049/jimmunol.174.12.8173; [6]Data on file

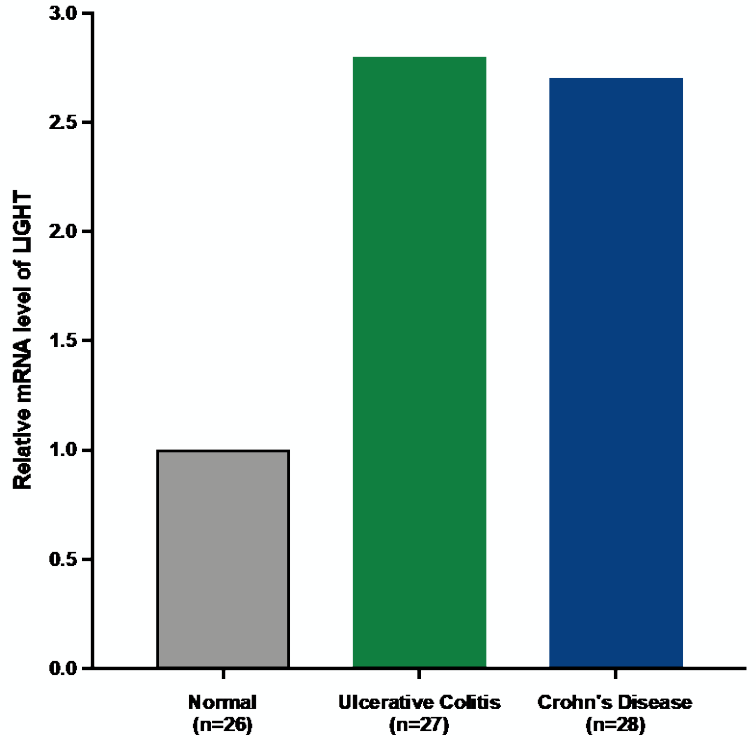
LIGHT in IBD: Patient and Biomarker Data



doi: 10.4049/jimmunol.2200652

Serum free LIGHT is higher in pediatric CD compared to healthy controls

Single center, non-interventional biomarker study



Data on file

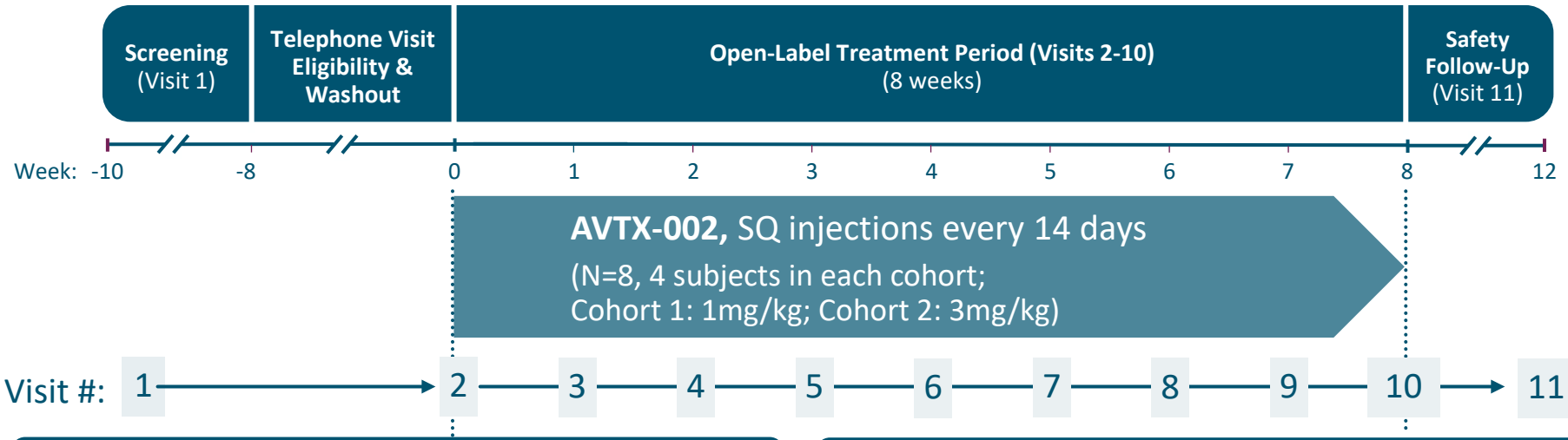
Elevated mRNA levels of LIGHT were detected in the inflamed tissues of patients with IBD, compared to healthy controls

quisovalimab: Phase 1b Study in Crohn's Disease

quisovalimab Crohn's Disease Proof-of-Concept

Proof-of-Concept Trial Design

Open-Label Proof-of-Concept Clinical Trial of AVTX-002 in adults with moderate to severe, active Crohn's disease who have previously failed anti-tumor necrosis factor alpha (anti-TNFα) treatment



Primary Endpoint

- Safety
- Tolerability

Key Secondary / Exploratory Endpoints

- Pharmacokinetics
- Short-term efficacy – as measured by SES-CD, CDAI, and IBDQ scores

- Moderate to severe disease
- Anti-TNFα failure
- Heavily pre-treated patients
- Dose escalation starting at 1mg/kg every 2 weeks
- Short duration (8 weeks)
- SES-CD score ≥7

CDAI, Crohn's Disease Activity Index; IBDQ, Inflammatory Bowel Disease Questionnaire; SES-CD, Simple Endoscopic Score for Crohn's disease.

Efficacy Signal Observed in Crohn's Disease Phase 1b POC Trial

- Open-label uncontrolled study in patients with moderate - severe Crohn's disease who previously failed anti-TNFα mAb[1] and other biologics
- Rapid reduction in serum free LIGHT levels
- Well-tolerated: no drug-related serious adverse events observed
- Clinically meaningful mucosal healing signal observed in preliminary analysis
  - 3 out of 7 patients demonstrated evidence of mucosal healing as determined by colonoscopy and adjudicated by a central reader with one patient achieving remission
  - 4 out of 8 patients demonstrated evidence of mucosal healing by investigator assessment
- Randomized Phase 2 POC placebo-controlled trial in UC under evaluation

[1]TNFα, tumor necrosis factor alpha; mAb, monoclonal antibody; [†]SES-CD, Simple Endoscopic Score for Crohn's Disease

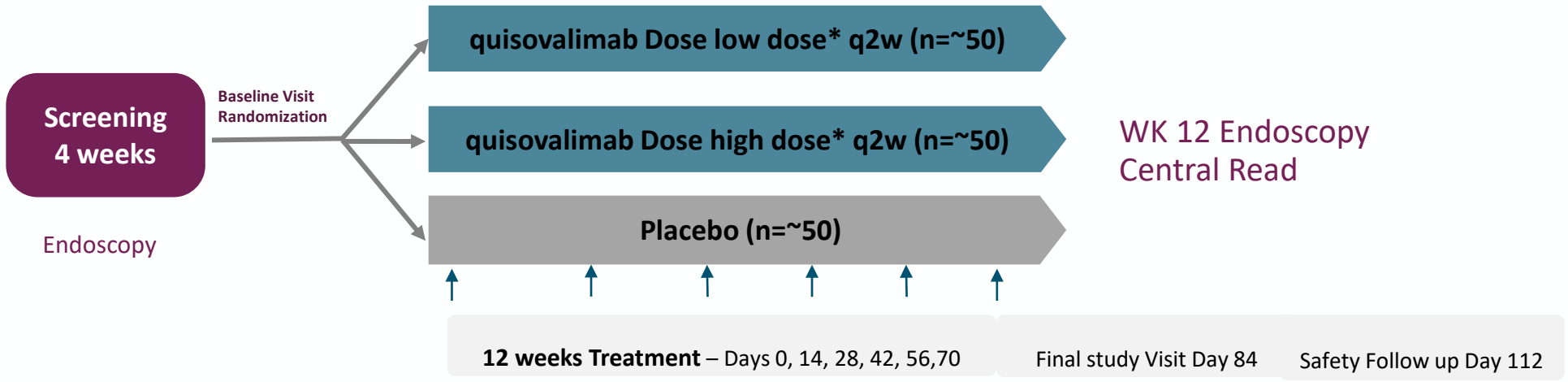
quisovalimab:
Proposed UC POC Trial

quisovalimab in UC: Proposed POC Trial Design

Phase 2, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Trial of quisovalimab in patients with moderate to severe UC who have failed conventional or advanced therapy

Key Inclusion Criteria

- Documented diagnosis of UC (endoscopy + histology) confirmed at Screening colonoscopy
- mMSC of 4 to 9, inclusive, with Modified Mayo endoscopic subscore ≥2 and rectal bleeding subscore ≥ 1.
- Inadequate response or intolerant to 1 or more of (IS,aTNF,Vedo, JAK,aIL12/23,S1PR,high dose CS) . Max 70% patients exposed to biologics.



Primary Endpoint

CLINICAL REMISSION:

- The proportion of subjects in the 3-component Modified Mayo Score clinical remission (as defined by endoscopic subscore of 0 or 1, rectal bleeding subscore of 0, and stool frequency subscore of 0 or 1 and not greater than Baseline) at Week 12.

*1 subcutaneous injection every two weeks

Key Secondary/Exploratory Endpoints

Clinical Response:
The proportion of subjects in 3-component Modified Mayo Score clinical response at Week 12..
Endoscopic improvement:
The proportion of subjects with endoscopic improvement, as defined by endoscopy subscore ≤1 with no friability) at Week 12.
Histological Remission
The proportion of subjects with histologic remission (defined Geboes score ≤3.1) at Week 12.
IBDQ response:
The proportion of subjects with IBDQ response, as defined by ≥ 16-point increase from Baseline at Week 12.
Safety & PK

quisovalimab

Other Recent Clinical Trials

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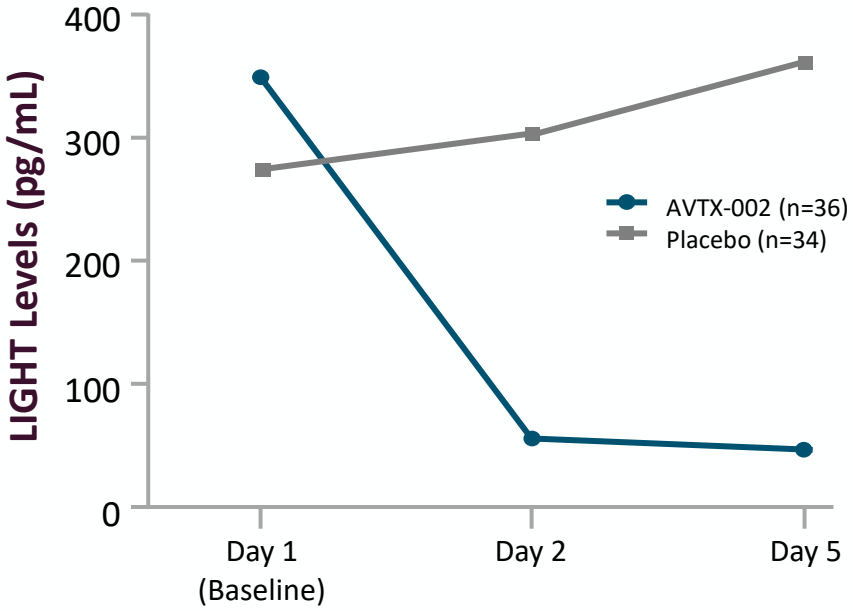
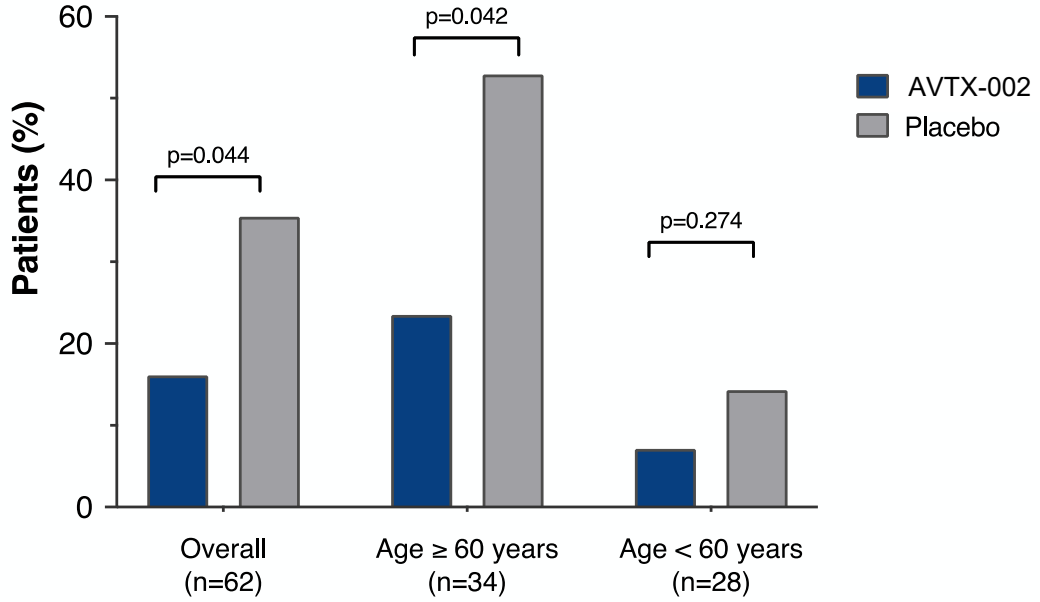
Significant Reduction in COVID-19 Induced Respiratory Failure and Mortality

LIGHT Levels (pg/mL) Over Treatment Period



Percentage of Patients with Respiratory Failure and/or Death by Day 28



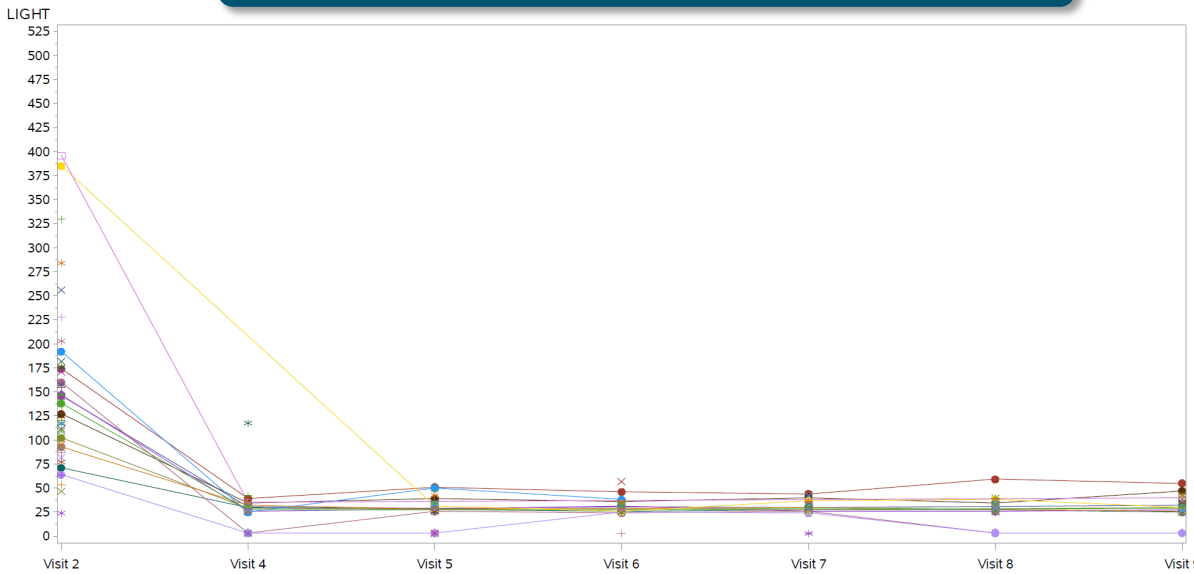
- Well-tolerated; no increase in serious adverse events vs. placebo
- Granted Fast Track Designation by FDA

Perlin, D. S. *et al.,* Randomized, double-blind, controlled trial of human anti-LIGHT monoclonal antibody in COVID-19 acute respiratory distress syndrome. *J Clin Invest.* 2022; 132(3):e153173

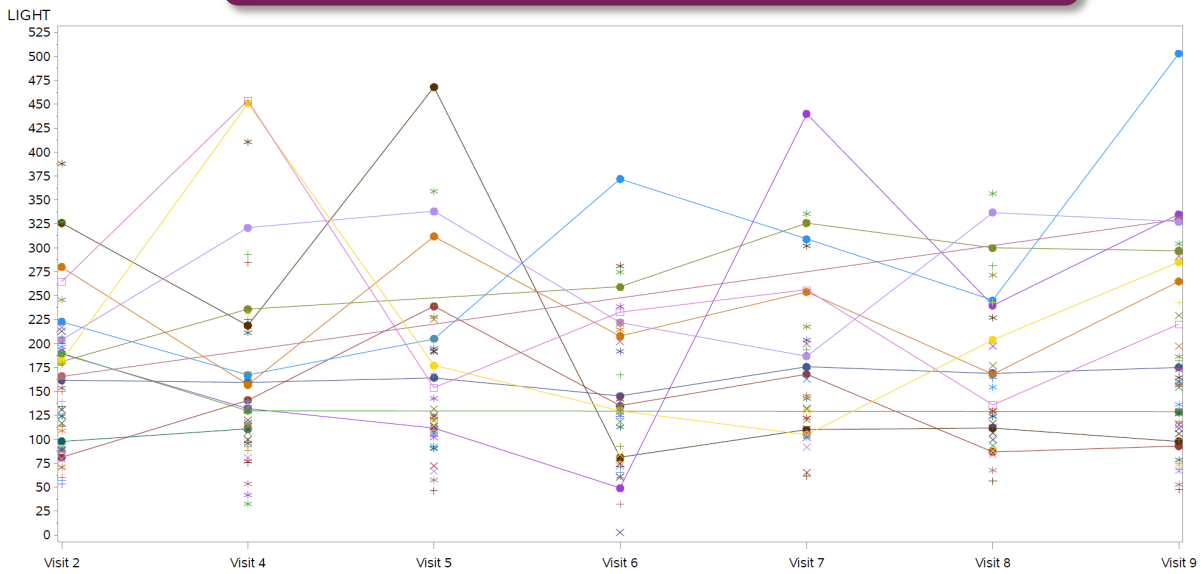
NEA PEAK Trial: Significant and Sustained Reduction in LIGHT Levels in Patients Treated with quisovalimab

LIGHT Levels (pg/mL) Over Treatment Period

AVTX-002, quisovalimab



Placebo



Data on file

NEA PEAK Trial Topline Data Executive Summary

Phase 2, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Trial that Enrolled a Total of 91 Patients to Evaluate the Safety and Efficacy of AVTX-002 for the Treatment of Poorly Controlled NEA

- The trial did not meet its primary endpoint, measured by the proportion of patients who experienced an asthma-related event (ARE), nor its secondary endpoints. However, the following positive observations were observed:
  - AVTX-002 demonstrated a significant and sustained reduction in LIGHT levels
  - AVTX-002 demonstrated a favorable safety and tolerability profile
  - Preliminary post-hoc analyses for sub-population of patients with baseline LIGHT levels > 125 pg/mL*:
    - Sub-population represented over 50% of patients
    - Positive trend showed ~50% reduction in AREs for patients treated with AVTX-002 compared to placebo
    - Positive trends were not identified in the secondary endpoints
- Additional analyses and translational work under consideration to de-risk future studies

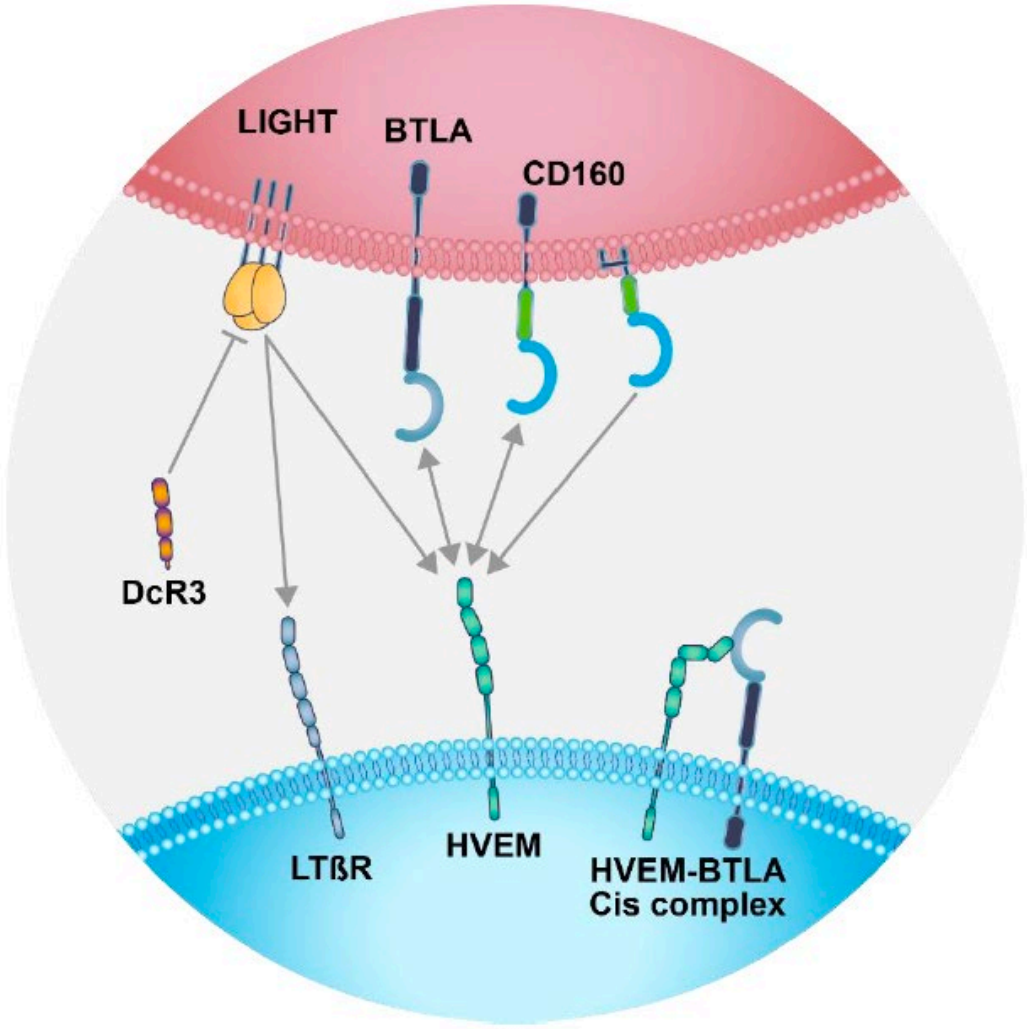
Data on file

**Post-hoc analyses are ongoing and therefore preliminary in nature.*

LIGHT-Signaling Network & AVTX-008

BTLA agonist fusion protein

The LIGHT-Signaling Network: A Key Immunoregulatory System



Arrow heads refer to mono and bidirectional signaling

- BTLA - B and T lymphocyte attenuator (Ig superfamily checkpoint)
  - Co-expressed with HVEM in T and B cells
  - "Dampens" the immune response
- LIGHT activates HVEM
  - Inhibits BTLA signaling, allowing immune stimulation
- LIGHT activates LTβR
  - Activates dendritic cells, macrophages, stromal cells
  - Recruits lymphocytes
  - Stimulates antigen presentation & lymphoid organization
- DcR3 inhibits/regulates LIGHT
- CD160 competes with BTLA for HVEM
  - Stimulated immune activation by restricting inhibitory signaling in NK, CTL, Tfh
- BTLA and CD160 can activate HVEM (bidirectional signaling)

Ward-Kavanagh et al., Immunity 2016. Šedý et al., Cold Spring Harb Perspect Biol 2014; Mintz & Cyster Immunol Rev 2020; Ware, C., Croft, M., and Neil, G. J.Exp Med. 2022 Jul 4;219(7):e20220236. 10.1084.

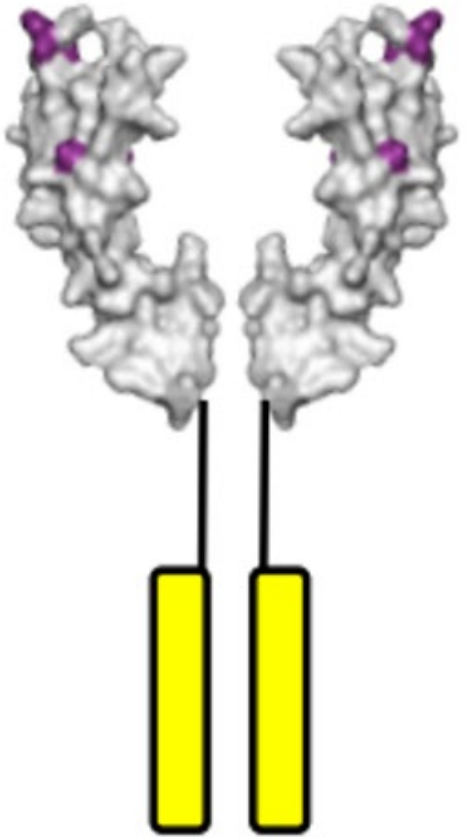
DcR3, decoy receptor 3

AVTX-008: BTLA Agonist Fusion Protein

Fully human, bioengineered HVEM, specific and high-affinity agonist for BTLA

Executive Summary

MOA	• Novel mechanism of action • Inhibits lymphocyte activation and effector cells through BTLA
Unmet Need	• Immunoregulatory disorders: potentially SLE, GVHD and non-responders to TNF inhibitors
Stage	• IND enabling stage
Clinical Advantages	• Inhibition of inflammatory cytokine production predicts efficacy in patients not responsive to anti-TNF therapy • Efficacy in murine lupus model excels compared to Abatacept • Reduced risk of anti-drug response • Proven modality of Fc fusion proteins: Orencia, Enbrel
Business Advantages	• Unique BTLA agonist fusion protein • Exclusive license to portfolio of issue patents and patent applications



SLE, Systemic lupus erythematosus; **GVHD,** graft-versus-host disease

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- Near term catalysts, subject to funding: 1) Initiate quisovalimab Phase 2 POC placebo-controlled trial in UC and 2) File IND for AVTX-008

Appendix

Financial & Investor Information

NASDAQ: AVTX

The following data is as of June 30, 2023

- Cash and cash equivalents – $6.3M[1]
- Outstanding common shares – 14M
- Fully diluted shares – 21.4M[2]

[1] Reflects $6M prepayment of principal on the Company's outstanding debt. As of June 30, 2023, the outstanding principal debt balance was $15.2M, inclusive of the final payment fee.

[2] Based on shares of common stock outstanding and common stock underlying outstanding warrants and outstanding options, including approximately 1.3M pre-funded warrants.

Experienced Management Team

Decades of successful leadership, product development, and commercialization in pharma and biotech

Garry A. Neil, MD
Chief Executive Officer
Chairman of the Board

Chris Sullivan
Chief Financial Officer

Lisa Hegg, PhD
SVP, Program Management,
Corporate Infrastructure

Colleen Matkowski
SVP, Global Regulatory Affairs,
Quality Assurance

Dino C. Miano, PhD
SVP, CMC,
Technical Operations

AstraZeneca

SUCAMPO
The Science of Innovation

aclaris
THERAPEUTICS

Takeda

ALEXION

Johnson & Johnson

OpGen

gsk
GlaxoSmithKline

BIOMARIN

ARENA
PHARMACEUTICALS

EY

FDA

avalo
THERAPEUTICS

World Class Scientific Advisor

- Carl Ware, PhD, Head of Avalo Scientific Advisory Board
  - Director, Sanford Burnham Prebys (SBP) Infectious and Inflammatory Diseases Center
  - Professor, SBP Immunity and Pathogenesis Program
  - Director, SBP Laboratory of Molecular Immunology
- Discoverer of LIGHT-signaling network

Sanford™ Burnham Prebys

avalo THERAPEUTICS

quisovalimab Treatment of COVID-19 ARDS: POC Trial Design

Proof-of-Concept Trial Design

Randomized, Double-blind, Placebo-controlled, Multi-Center, Proof-of-Concept Clinical Trial of AVTX-002 in Adults with COVID-19 ARDS

Inclusion Criteria

Hospitalized Patients with Documented COVID-19 Infection and Clinical Evidence of Pneumonia with Mild to Moderate ARDS

Enrollment (n=83)

1:1 Randomization

- **AVTX-002 (16 mg/kg [maximum 1200 mg]) on Day 1 by SQ injection + Standard of Care at the site**
- **Placebo-matched SQ injection + Standard of Care at the site**

Primary Endpoint

- The proportion of patients treated with AVTX-002 compared with placebo in addition to standard of care at site, alive and free of respiratory failure over 28 days
- 80% power to show an absolute difference of 25% between cohorts

Key Secondary / Exploratory Endpoints

- 1-month mortality
- Change in Pa02/Fi02 ratio
- Time to and duration of invasive ventilation
- LIGHT levels and other biomarkers of inflammation
- Viral load

PaO2 - Partial Pressure of Oxygen, FiO2 - Fraction of Inspired Oxygen

quisovalimab for Treatment of NEA: Phase 2 Trial Design

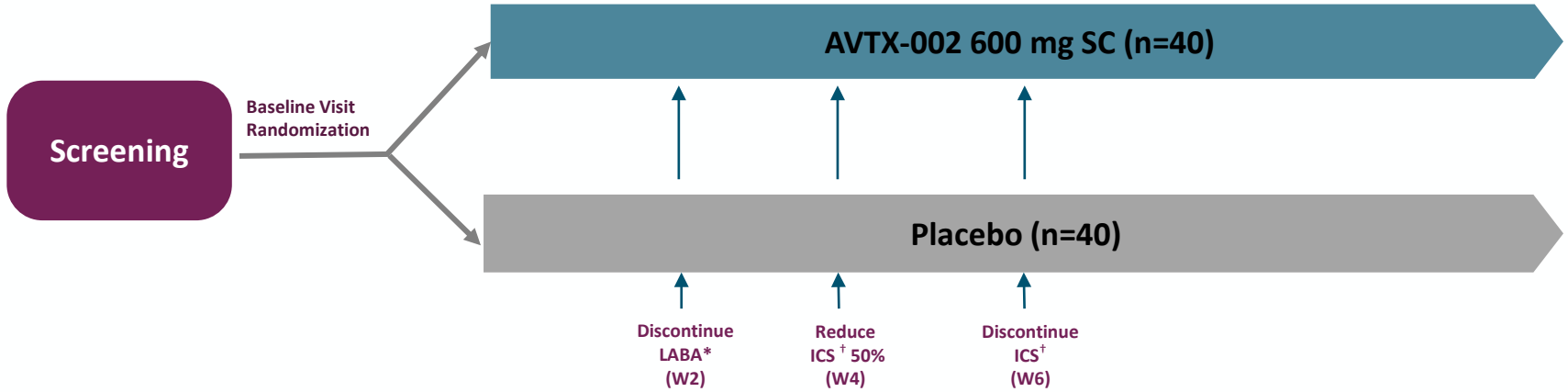
PEAK Trial

Phase 2, Randomized, Double-Blind, Placebo-Controlled, Parallel Group Trial of AVTX-002 in patients with NEA

Key Inclusion Criteria

- Poorly controlled asthma on LABA* and ICS †
- Exacerbation in the last 24 months
- Blood eosinophil count <300 cells/µL

Final Enrollment (n=91)



Primary Endpoint

- Proportion of patients who experience an asthma related event defined as:
  - ≥6 additional reliever puffs of SABA‡ (compared to baseline) in a 24-hour period on 2 consecutive days, or
  - Increase in ICS† dose ≥4 times than the dose at baseline, or
  - A decrease in peak flow of 30% or more (compared to baseline) on 2 consecutive days of treatment, or
  - An asthma exacerbation requiring the use of systemic corticosteroids (tablets, suspension, or injection) for at least 3 days, or
  - A hospitalization or emergency room visit because of an asthma exacerbation.

Key Secondary/Exploratory Endpoints

- Change in FEV_1‡ from baseline
- Time to asthma related event
- Change in FeNO# from baseline
- Change in ACQ§ from baseline

***LABA,** long-acting beta-agonist; **†ICS,** inhaled corticosteroid; **‡SABA,** short-acting beta agonist; **‡FEV_1,** forced expiratory volume in 1 second; **#FeNO,** fractional exhaled nitric oxide; **§ACQ,** asthma control questionnaire.