# Innovation Driven by Compassion

Avalo is a leading clinical-stage biopharmaceutical company that employs a precision medicine approach to discover, develop, and commercialize highly targeted therapeutics in areas of significant unmet clinical need.

**Corporate Presentation** 



### **Forward-Looking Statements**

This presentation may include forward-looking statements made pursuant to the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. Such forward-looking statements are subject to significant risks and uncertainties that are subject to change based on various factors (many of which are beyond the control of Avalo Therapeutics, Inc. ("Avalo" or the "Company"), which could cause actual results to differ from the forward-looking statements. Such statements may include, without limitation, statements with respect to Avalo's plans, objectives, projections, expectations and intentions and other statements identified by words such as "projects," "may," "might," "will," "could," "would," "should," "continue," "seeks," "aims," "predicts," "believes," "expects," "anticipates," "estimates," "intends," "plans," "potential," or similar expressions (including their use in the negative), or by discussions of future matters such as: the future financial and operational outlook; the development of product candidates or products; timing and success of trial results and regulatory review; potential attributes and benefits of product candidates; and other statements that are not historical.

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### **Experienced Management Team**

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



Garry A. Neil, MD President, Chief Executive Officer\*



**Chris Sullivan Chief Financial Officer** 



Lisa Hegg, PhD SVP, Program Management and Corporate Infrastructure



Colleen Matkowski SVP, Global Regulatory **Affairs and Quality Assurance** 



**Scott White, MD** VP, Clinical Development



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





































### **Avalo Therapeutics (AVTX)**



Focused portfolio emphasizing high value "first in class" immunology mAb



AVTX-002 (anti-LIGHT mAb) POC<sup>1</sup> in COVID-19 ARDS<sup>2</sup> with Fast Track, and IBD, NEA trial underway - phase 2 data 4Q22



Pivotal trial data for orphan/RPDD<sup>3</sup> CDG<sup>4</sup> program (AVTX-803) 4Q22 Second orphan/RPDD CDG program (AVTX-801) will initiate 2022

<sup>1</sup>POC: Proof of Concept studies;

<sup>2</sup>COVID-19 ARDS: SARS-COV2 associated acute respiratory distress syndrome (ARDS), program also has Fast Track designation from FDA

<sup>3</sup>RPDD: Rare pediatric disease designation; <sup>4</sup>CDG: Congenital disorder of glycosylation



### **AVTX 2022 Corporate Highlights**

**New management team:** Experienced experts who know the pipeline and people

**Drive value for shareholders**: allocate capital to most promising programs:

- Focus on highest value indications for promising novel biologics: AVTX-002 and AVTX-007
- Advance pivotal orphan/RPDD CDG programs: AVTX-803 and AVTX-801
- Out-license/divest non-strategic assets: AVTX-006

### **Emphasize:**

- ✓ Rigorous scientific studies
- ✓ Operational excellence
- √ Strategic partnerships



### **Clinical-Stage Pipeline**

| Program              | Mechanism of Action         | Lead<br>Indication            | Designation        | Clinical Development Stage |         |                 | Anticipated                      |
|----------------------|-----------------------------|-------------------------------|--------------------|----------------------------|---------|-----------------|----------------------------------|
|                      |                             |                               |                    | Phase 1                    | Phase 2 | Phase 3/Pivotal | Milestone                        |
| Immunology           |                             |                               |                    |                            |         |                 |                                  |
| AVTX-002             | Anti-LIGHT mAb              | NEA                           |                    |                            |         |                 | Phase 2 Top-line Data<br>4Q 2022 |
|                      |                             | Inflammatory<br>bowel disease | -                  |                            |         |                 | *                                |
|                      |                             | COVID-19 ARDS                 | Fast Track         |                            |         |                 | **                               |
| AVTX-007             | Anti-IL-18 mAb              | Still's disease               | -                  |                            |         |                 | Top-line Data<br>2023‡           |
| Rare Genetic Disease | 28                          |                               |                    |                            |         |                 |                                  |
| AVTX-803             | L-Fucose replacement        | LAD II<br>(SLC35C1-CDG)       | ODD                |                            |         |                 | Pivotal Trial Data<br>4Q 2022    |
| AVTX-801             | D- Galactose<br>replacement | PGM1-CDG                      | RPDD<br>Fast Track |                            |         |                 | Pivotal Trial Data<br>2023‡‡     |

ARDS, acute respiratory distress syndrome; CDG, congenital disorder of glycosylation; IL, interleukin; LAD, leukocyte adhesion deficiency; mAb, monoclonal antibody; NEA, non-eosinophilic asthma; ODD, orphan drug designation; PGM1, phosphoglucomutase 1; RPDD, rare pediatric disease designation, Inflammatory bowel disease (IBD)

<sup>\*</sup> The Company is considering a possible randomized, double-blind, placebo-controlled clinical trial in moderate to severe refractory patients with IBD

<sup>\*\*</sup> Further development of AVTX-002 for treatment of COVID-19 ARDS is currently dependent on third party funding

<sup>‡</sup> Management is currently reviewing preliminary data and path forward related to this indication; updates will be forthcoming upon finalization of the review

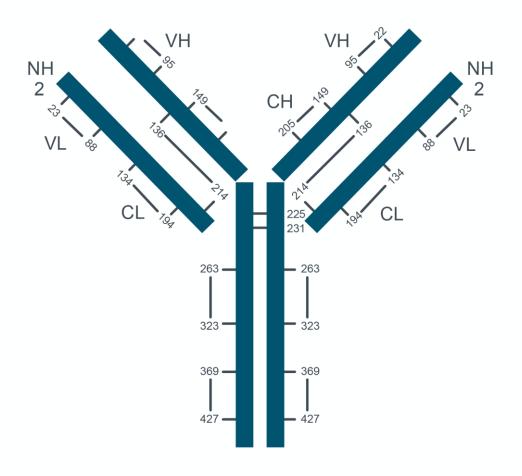
<sup>‡‡</sup> This study is sponsored by a third party; currently working with study sponsor to refine milestone timing

### **AVTX-002 Anti-LIGHT mAb**



### AVTX-002: First-in-class anti-LIGHT (TNFSF14) mAb

- Fully human monoclonal antibody (mAb) to LIGHT
- POC in 2 indications: COVID-19 ARDS & IBD<sup>1</sup>
- Currently in phase 2 for non-eosinophilic asthma (NEA)



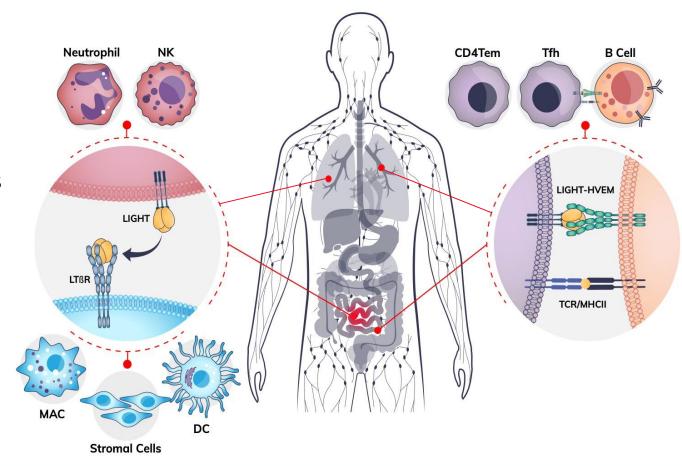


<sup>\*</sup>Worldwide rights licensed from Kyowa Kirin Corpoation (KKC). KKC has an option to retain the rights in Japan.

<sup>&</sup>lt;sup>1</sup>Inflammatory Bowel Disease (IBD)

### LIGHT is a Key Driver of Acute & Chronic Inflammation

- LIGHT/TNFSF14 is an immunoregulatory cytokine
- Critical for neutrophil, NK, T and B cell function
- 2 primary receptors: LTβR, HVEM receptors
- Pivotal role in lung, GI tract, & other tissues<sup>1</sup>
- Reducing LIGHT can moderate immune dysregulation in many acute and chronic inflammatory disorders



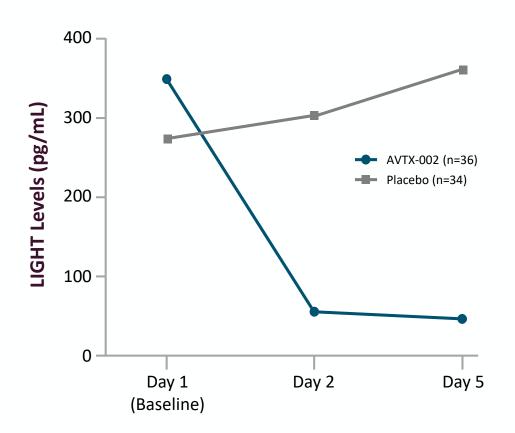
1. Ware, C., Croft, M., and Neil, G. Manuscript in preparation CD4Tem, effector-memory T cells; DC, dendritic cell; MAC, macrophage; NK, natural killer cell; Tfh, T follicular helper cells

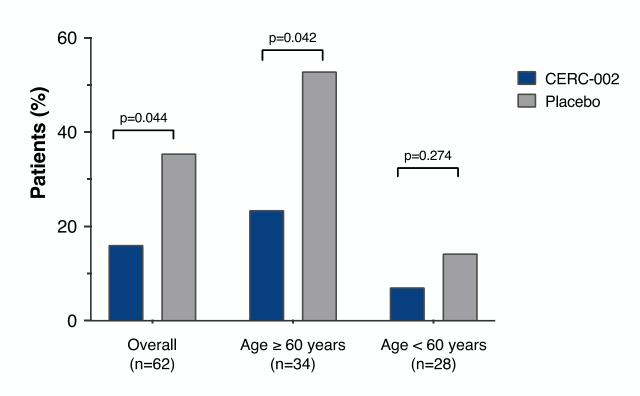


# **AVTX-002** Significantly Reduced Respiratory Failure and Mortality in Phase 2 POC COVID-19 ARDS Study

LIGHT Levels (pg/mL) Over Treatment Period

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





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 (2021) doi:10.1172/jci153173.



### **AVTX-002 POC in COVID-19 ARDS**

- A single dose rapidly reduced serum free-LIGHT levels by  $\simeq 85\%^1$
- Well-tolerated; no increase in serious adverse events vs placebo
- Evidence of clinically important anti-inflammatory effect in the lung
- Granted Fast Track designation by FDA
- Potential for benefit in other causes of ARDS, and other lung inflammation





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**AVTX-002 for Non-Eosinophilic Asthma (NEA)** 

**New Indication** 



### Non-Eosinophilic Asthma (NEA)

# Patient Population

- NEA accounts for  $\leq$  47% of asthma<sup>2,3</sup>
- 50% of patients with asthma remain controlled<sup>4</sup>

# Signs and Symptoms<sup>4</sup>

- Typical asthma symptoms; often more severe/resistant to treatment<sup>5</sup>
- Associated with smoking, pollution, infections, obesity<sup>5</sup>

# Treatment Approach<sup>4</sup>

- Standard therapies for asthma; many NEA patients remain uncontrolled<sup>6,7</sup>
- Currently no approved targeted therapies for NEA

# Rationale for AVTX-002

- Sputum LIGHT levels negatively associated with lung function (FEV<sub>1</sub> and FVC) in asthma<sup>8,9</sup>
- Higher LIGHT levels in sputum in asthma patients with neutrophilia<sup>8</sup>
- Neutrophils have high pre-formed LIGHT levels<sup>10</sup>

1. Asthma and Allergy Foundation of America. Asthma facts and figures. https://www.aafa.org/asthma-facts/. Accessed January 3, 2022. 2. McGrath KW et al. Am J Resp Crit Care Med. 2012;185(6):612-619. 3. Jiang Y et al. Allergy Asthma Clin Immunol. 2021;17(1):45. 4. Centers for Disease Control and Prevention. AsthmaStats: Uncontrolled asthma among adults, 2016. https://www.cdc.gov/asthma/asthma\_stats/uncontrolled-asthma-adults.htm. Accessed January 3, 2022. 5. Carr, T. F., Zeki, A. A. & Kraft, M. Eosinophilic and Noneosinophilic Asthma. Am J Resp Crit Care 197, 22–37 (2017). 6. Esteban-Gorgojo I et al. J Asthma Allergy. 2018;11:267-281. 7. ClearView Healthcare Partners Analysis, June 2021. 8. Hastie AT et al. J Allemunol. 2010;125(5):1028-1036. 9. Romeo J et al. J Allergy Clin Immunol. 2013;131(2 Suppl):AB203. Abstract 725. 10. Rørvig et al J Leukocyte Biol 94, 711–721 (2013).

### **AVTX-002 for NEA: Trial Design**

#### **Clinical Trial Design**

Multicenter, Phase 2 Study of AVTX-002 in patients with NEA

#### **Inclusion Criteria**

- Poorly controlled asthma on LABA\* (salmeterol) and ICS<sup>+</sup> (fluticasone)
- Exacerbation within 1 year previously
- Blood eosinophil count <250 cells/dL</li>

**Estimated Enrollment: N=80** 

AVTX-002 8 mg/kg (max 600 mg) q4wks (n=40)

Discontinue LABA at Week 2

**12 weeks** • Re

- Reduce ICS at Week 4 by 50%
- Discontinue ICS at Week 6

Placebo (n=40)

#### **Primary Endpoint**

Time to exacerbation

#### **Key Secondary / Exploratory Endpoints**

- Proportion of patients with exacerbation
- Change in FEV<sub>1</sub><sup>‡</sup> from baseline
- Change in ACQ§ from baseline

#### **Topline Data Expected 4Q22**



<sup>\*</sup>LABA, long-acting beta-agonist; †ICS, inhaled corticosteroid; ‡FEV<sub>1</sub>, forced expiratory volume in 1 second; §ACQ, asthma control questionnaire.

Trial Design Performed With Dupilumab (Demonstrated Kaplan-Meier Curve Difference in Time to Exacerbation)

### Efficacy signal observed in Crohn's disease phase 1B study

- Open-label uncontrolled study in patients with moderate severe Crohn's disease who previously failed anti-TNF $\alpha$  mAb<sup>1</sup> 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 in preliminary analysis<sup>2</sup>
- Randomized placebo-controlled trial in ulcerative colitis under evaluation



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

<sup>&</sup>lt;sup>2</sup>Updated since 1/06/22 release; final analysis of colonoscopy (SES-CD) scores, symptom scores and biomarkers ongoing expected in 2Q22

### **AVTX-803**

**Congenital Disorders of Glycosylation (CDGs)** 



### **AVTX-803: Leukocyte Adhesion Disorders (LAD-II)**

LAD Type II: Absence of Sialyl Lewis X of E-selectin (SLC35C1 mutation)

#### **Overview**

# Patient Population

- Ultraorphan disease: worldwide prevalence ~10-20 pt
- Nonfunctional GDP-fucose transporter with decreased fucosylation
- Absence of sialyl Lewis X (CD15a) expression

## Signs and Symptoms

- Facial dysmorphism/ Growth & cognitive impairment
- Recurrent bacterial infections due to neutrophil dysfunction

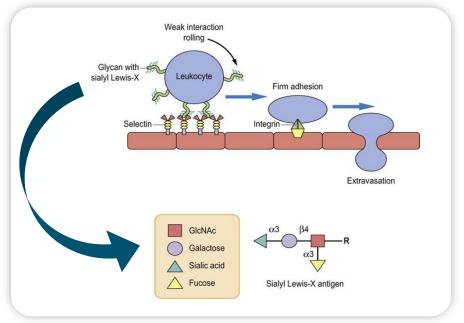
#### Diagnosis/ Evaluation

- Flow cytometry for sialyl Lewis X (CD15a) expression
- Leukocytosis/neutrophil function assay
- H antigen expression (for pharmacodynamic effect)

#### Treatment

- Currently no FDA-approved treatment; patients use OTC fucose
- AVTX-803 granted orphan drug, Fast Track & rare pediatric disease designation

#### LAD-II (SLC35C1-CGD) Pathophysiology



- Type II (LAD-II) caused by LOF mutation in *SLC35C1* gene resulting Inability to fucosylate certain critical proteins
- Absence of sialyl Lewis X results in neutrophil dysfunction

AVTX-803 is an oral formulation of L-fucose that enhances fucosylation of proteins in the absence of a functioning GDP-fucose transporter, partially restoring protein function



### AVTX-803 (L-fucose) for Treatment of LAD II (SLC35C1-CDG)

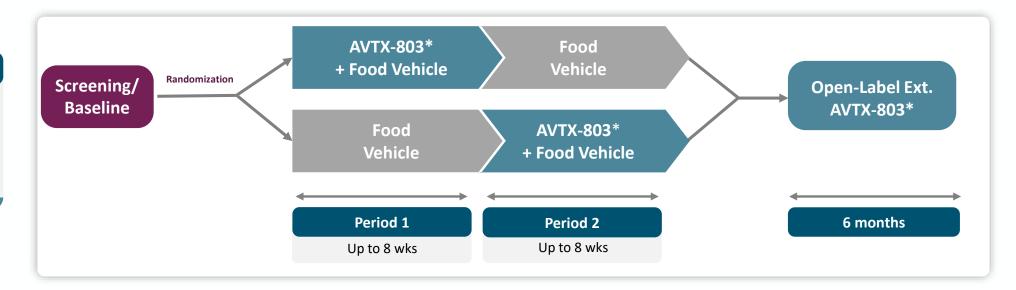
#### **Clinical Program**

#### **Trial Design**

Single-Center (US), Double-Blind (plus Open-Label Extension) Pivotal Study of AVTX-803 in patients with LAD II (SLC35C1-CDG)

#### **Inclusion Criteria**

- Known *SLC35C1* mutation
- Previous known response to L-fucose



#### **Primary Endpoint**

Restoration of sialyl Lewis X biomarker

#### **Key Secondary / Exploratory Endpoints**

- Leukocyte function assay
- Neutrophil counts

**Topline pivotal data expected 4Q22** 

\*100-300 mg/kg up to 5x/d based on clinical response



### **Clinical-Stage Pipeline**

|                       | Mechanism               | Lead                       |             | Clinical Development Stage |         |                 | Anticipated                      |
|-----------------------|-------------------------|----------------------------|-------------|----------------------------|---------|-----------------|----------------------------------|
| Program               | of Action               | Indication                 | Designation | Phase 1                    | Phase 2 | Phase 3/Pivotal | Milestone                        |
| Immunology            |                         |                            |             |                            |         |                 |                                  |
|                       |                         | NEA                        |             |                            |         |                 | Phase 2 Top-line Data<br>4Q 2022 |
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| AVTX-801              | D-Galactose replacement | PGM1-CDG                   | ODD<br>RPDD |                            |         |                 | Pivotal Trial Data<br>2023‡‡     |
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# **Finance Update**



### **Financial & Investor Information**

#### **Key Financial Highlights**

#### **NASDAQ: AVTX**

#### The following data is as of December 31, 2021

- Cash \$54.6M\*
- Outstanding common shares 112.8M
- Fully diluted shares 132M
- Average daily trading volume 0.5M



<sup>\*</sup> Preliminary unaudited cash balance as of February 28, 2022 is \$46.1 million.

### **2022: A Transformational Year for AVTX**

### **New Management Team and Pipeline Focus**

### Multiple Meaningful Clinical Catalysts

- AVTX-002 NEA data from 80-patient Phase 2 trial in 4Q22
- AVTX-803 LAD II (SLC35C1-CDG) pivotal data 4Q22
- AVTX-801 pivotal study initiation 2022

### **New Business Development Opportunities**

- AVTX-006 potential for out-licensing/ divestiture
- AVTX-002, evaluate additional strategic opportunities for future AVTX-002 indication expansion, e.g. ulcerative colitis

