Avalo Therapeutics, Inc. (AVTX)

**Corporate Presentation** 

August 2024



## **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 Avalo's control), 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: integration of AVTX-009 into our operations; drug development costs, timing of trial results and other risks, including reliance on investigators and enrollment of patients in clinical trials; the intended use of the proceeds from the private placement; reliance on key personnel; regulatory risks; general economic and market risks and uncertainties, including those caused the war in Ukraine and the Middle East; and those other risks detailed in Avalo's filings with the Securities and Exchange Commission, available at www.sec.gov. 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 & AlmataBio: A Strong Strategic Fit to Drive Long-Term Growth



**Experienced team** with a proven track record of late-stage immunology development

**NASDAQ Listed: AVTX** 

AlmataBio, Inc.

Private company largely consisting of Anti-IL-1β mAb and related assets

**De-risked MOA in target indications** 



Leader in biologics to treat inflammation with a focus on AVTX-009 (Anti-IL-1β mAb)

Hidradenitis
Suppurativa
First Patient Enrolled
in Phase 2 LOTUS Trial
2H 2024

NASDAQ Listed: AVTX

Concurrent with the acquisition of AVTX-009 in March 2024, Avalo announced a PIPE financing of up to \$185M providing cash runway into 2027



## **Executive Summary and Development Timeline**

#### Potential for a Best-in-Disease Profile in HS

- High potency and favorable half-life may allow for improved efficacy and convenient dosing
- Potential in other autoimmune diseases

#### Key Clinical Evidence Supporting IL-1β in HS

- In a large, well controlled Phase 2 trial (NCT05139602), lutikizumab validates IL-1 $\beta$  targeting in HS. Efficacy was comparable with other HS therapies despite a more severe patient population<sup>1</sup>
- Clinical evidence suggests anti-IL-1 $\alpha$  therapy is not effective in HS<sup>2,3</sup>
- MAS825 (IL-1β/IL-18 bispecific) showed positive results in a Phase 2 randomized controlled study (NCT03827798)<sup>4</sup>
- Monospecific IL-1b inhibition may outperform bispecifics that address targets that are unvalidated (IL-18) or known not to contribute to efficacy (IL-1a)
- HS Anticipated to Become Multi-Billion Dollar Market
- IND is active permitting initiation of Phase 2 LOTUS Trial
- First Patient Enrolled in Phase 2 LOTUS Trial Expected 2H 2024
- Expected Cash Runway into 2027



<sup>1.</sup> Kimball AB, et al. Presented at: American Academy of Dermatology; March 8-12, 2024; San Diego, CA

<sup>2.</sup> ClinicalTrials.gov identifier: NCT04988308. Updated November 13, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT04988308 NCT04019041

<sup>3.</sup> ClinicalTrials.gov identifier: NCT04019041. Updated July 27, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT04988308

<sup>4.</sup> Kimball AB, et al. Presented at: American Academy of Dermatology; March 8-12, 2024; San Diego, CA

## **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



Mittie Doyle, MD Chief Medical Officer



**Chris Sullivan**Chief Financial Officer



**Paul Varki** Chief Legal Officer



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



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



**Lisa Hegg, PhD**SVP, Program Management,
Corporate Infrastructure,
Clinical Operations







































#### **AVTX-009**

#### Highly Potent and Specific Inhibitor of a Validated Immune Target; Potential for Q2W to Q12W Dosing 1,2

## • High-affinity humanized antibody that potently neutralizes IL-1 $\beta$

- Originally developed by Lilly
- Exceptional Kd of <3 pM (picomolar)</li>
  - Superior potency vs ILARIS in vitro
- t<sub>1/2</sub> ~19 days (SC and IV)
- Bioavailability ~73%

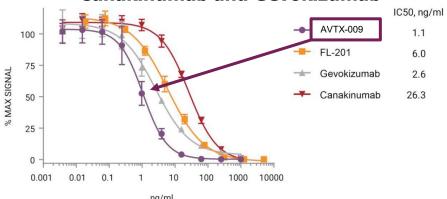
#### Clinical experience: 245 patients studied in Phase 1 & Phase 2 trials<sup>3</sup>

- Excellent tolerability and safety at all doses up to 180 mg weekly
- Marked lowering of hs-CRP after a single dose
- Potency and half life expected to support Q4W or less frequent dosing in HS

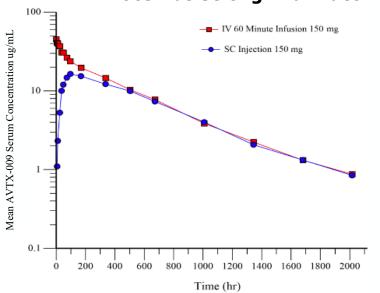
#### Suitable for subcutaneous and intravenous formulation

- Stable 150 mg/ml dosage form
- Plan for commercial presentation to be an autoinjector
- Data on file
- 2. Bihorel S, et al. AAPS J. 2014;16(5):1009-1017
- 3. Sloan-Lancaster J, et al. Diabetes Care. 2013;36(8):2239-2246

## **AVTX-009** has Higher Potency than Canakinumab and Gevokizumab

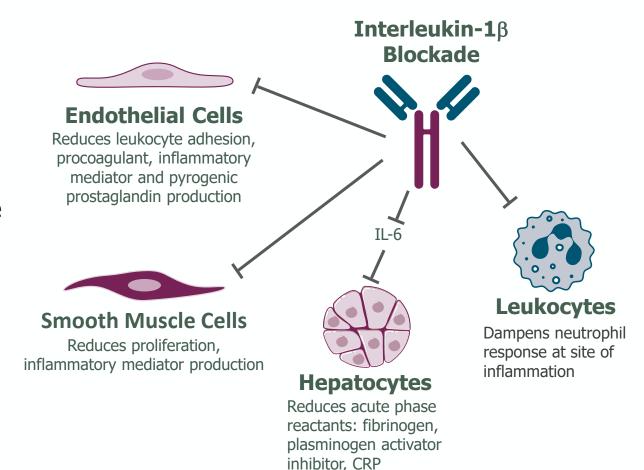


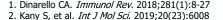
#### **AVTX-009** has Strong Pharmacokinetic Profile



## **IL-1**β is a Validated Target in Inflammatory Diseases

- IL-1 $\beta$  is a central driver of the inflammatory process¹: activates immune cells that generate pro-inflammatory cytokines including IL-6, TNF- $\alpha$ , and IL-17
- Inhibition of IL-1 $\beta$  has been shown to be effective and safe in a variety of inflammatory diseases including Hidradenitis Suppurativa (HS)<sup>2</sup>
- IL-1 $\beta$  is involved in the pathogenesis of many autoimmune and autoinflammatory diseases







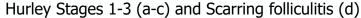
# Hidradenitis Suppurativa (HS)



## **Hidradenitis Suppurativa (HS)**

- Chronic, often debilitating inflammatory skin disease
  - Lumps, abscesses and scars develop under the arms, in the groin and other areas
- Current treatments:
  - Antibiotics
  - Retinoids
  - Steroids-topical, oral, injections
  - Cosentyx, Humira
- HS has an estimated prevalence of 0.7–1.2% in the European-US population<sup>1</sup>



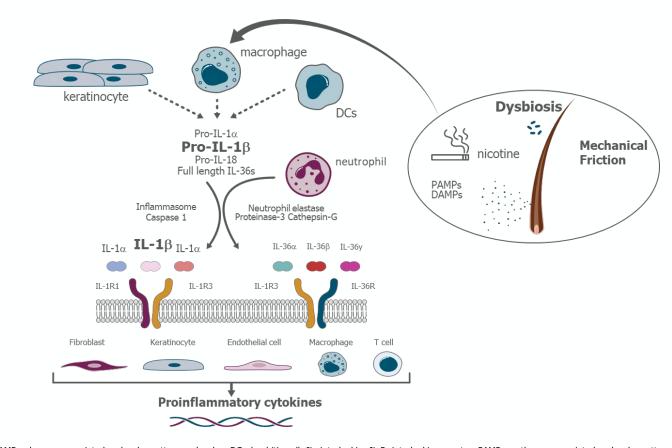


<sup>1.</sup> Nguyen TV, et al. J Eur Acad Dermatol Venereol. 2021;35(1):50-61

<sup>2.</sup> Ngan V, et al. Hidradenitis suppurativa. DermNet. Accessed February 16, 2024. https://dermnetnz.org/topics/hidradenitis-suppurativa

## IL-1β is Strongly Implicated in the Pathophysiology of HS<sup>1</sup>

- Inflammatory cascade in HS is triggered by various external stimuli
  - Smoking, dysbiosis, or mechanical stress
- IL-1 $\beta$  is a key driver of the inflammatory cascade that leads to the destruction of the pilosebaceous unit
  - Increased IL-1β levels in lesional skin<sup>2,3</sup>
  - Genetic associations<sup>4</sup>
  - Clinical benefit has been observed with anti-IL-1 drugs



DAMPs, damage-associated molecular pattern molecules; DC, dendritic cell; IL, interleukin; IL-R, interleukin receptor; PAMPs, pathogen-associated molecular pattern molecules.



<sup>1.</sup> Calabrese L, et al. Biomolecules. 2024;14(2):175

<sup>2.</sup> Vossen ARJV, et al. J Invest Dermatol. 2020;140(7):1463-1466.e2

<sup>3.</sup> Kelly G, et al. *Br J Dermatol*. 2015;173(6):1431-1439

<sup>4.</sup> Marzano AV, et al. *Dermatology*. 2022;238(5):860-869

## **Baseline Patient Characteristics of Biologics from Recent HS Trials**

## Lutikizumab Trial Enrolled More Severe Patients than Competitor Trials

Patient Characteristics	adalimumab PIONEER I / II¹	secukinumab SUNSHINE / SUNRISE <sup>2</sup>	bimekizumab BE HEARD I / II³	sonelokimab MIRA <sup>4</sup>	lutikizumab NCT05139602 <sup>5</sup>
Age (years), mean	34.9 – 37.8	35.5 – 37.3	36.7 / 36.6	37.6	37.0-39.5
Gender, female, %	59.5 – 69.3	54 – 57	63.0 / 50.7	59.8	53.8-67.6
Race, White, %	75.8 – 87.7	74 – 81	77.8 / 81.5	85.0	64.9-88.9
<b>BMI,</b> kg/m², mean	31.3 – 34.5	31.4 – 32.8	33.8 / 32.3	33.7	33.0-34.1
Smoking, current, %	52.9 – 67.3	50 – 58	43.0 / 48.1	46.6	24.3-46.2
<b>Duration of HS</b> years, mean	8.8 – 9.9	6.6 - 8.2	9.0 / 7.0	8.5	10.0-13.2
Lesions, mean - AN count - DT	10.7 - 14.4 3.0 - 4.6	12.6 – 13.9 3.2 – 3.6	16 / 16.5 3.8 / 3.4	14.0 3.5	11.4-17.0 5.7-8.7
Hurley stage, %  - I  - II  - III	0 52.3 – 54.6 45.4 – 47.7	2 - 6 51 - 60 28 - 46	0 50.3 / 61.1 49.7 / 38.9	0 63.7 36.3	25.6-35.1 64.9-74.4
Prior biologic use, %	0	20 - 26	25.0 / 13.2	17.5	100 TNF failure entry criter



<sup>1.</sup> Kimball AB et al. N Engl J Med. 2016; 375:422-34;

<sup>2.</sup> Kimball AB et al. Lancet. 2023; 401:747-7613;

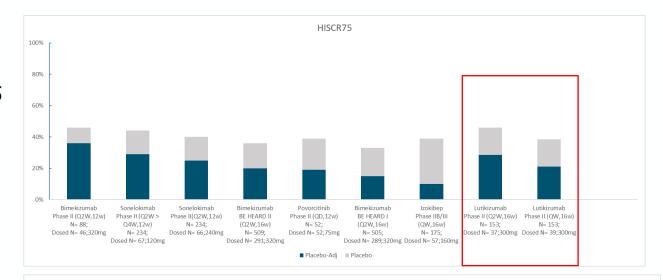
<sup>3.</sup> Presentations at American Academy of Dermatology (AAD 2023), March 17-21 New Orleans, LA and 2023 European Academy of Dermatology and Venereology (EADV 2023), October 11-14, Berlin, Germany

<sup>4.</sup> R&D Presentation - Results MIRA trial June 26th 2023 <a href="https://ir.moonlaketx.com/static-files/86c71a51-5836-4f1c-9a2c-45e440a50d75">https://ir.moonlaketx.com/static-files/86c71a51-5836-4f1c-9a2c-45e440a50d75</a>

<sup>5.</sup> Kimball AB et al. presentation at American Academy of Dermatology (AAD 2024), 8-12 March 2024, San Diego, CA

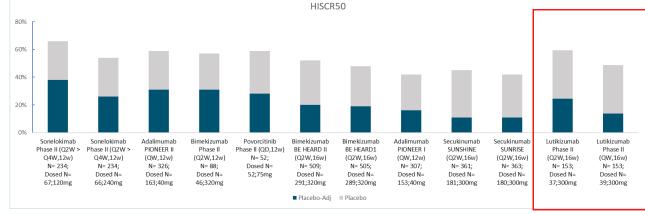
# Lutikizumab Efficacy Comparable to Other Agents in a More Severe Patient Population that Failed TNF- $\alpha$ Therapy<sup>1</sup>

HiSCR75



Lower response rates observed in patients that have been previously treated with biologic agents or Hurley Stage 3<sup>2-4</sup>

HiSCR50



- 1. Kimball AB, et al. Presented at: American Academy of Dermatology; March 8-12, 2024; San Diego, CA
- 2. Kimball AB, et al. Supplement. N Engl J Med. 2016;375(5):422-434
- 3. Sayed, et al. Poster presented at: European Academy of Dermatology and Venereology Congress; October 11-14, 2023. Berlin, Germany
- 4. Zouboulis CC, et al. *Br J Dermatol*. Published online March 12, 2024. doi:10.1093/bjd/ljae098



## IL-1 $\alpha$ is Unlikely to be an Important Driver of HS Pathophysiology

#### • Phase 2, bermekimab (IL-1 $\alpha$ mAb) (NCT04019041)<sup>1</sup>

- Moderate to Severe Hidradenitis Suppurativa
- Loading doses and then either 400 mg QW or 400 mg Q2W
- Primary endpoint: HiSCR50 at week; Efficacy not demonstrated

#### Phase 2, bermekimab (NCT04988308)<sup>2</sup>

- Moderate to Severe Hidradenitis Suppurativa
- Primary endpoint : HiSCR50 at week 16
- Study was terminated prematurely as interim analysis met the futility criteria for primary endpoint (no better than placebo)

	Part 1: Placebo (N=35)	Part 1: Bermekimab (N=35)	Part 1: Adalimumab (N=35)
Primary Endpoint Percentage of Participants Who Achieved Hidradenitis Suppurativa Clinical Response-50 (HiSCR50) at Week 16	37.1	37.1	57.1
<b>Key Secondary Endpoint</b> Percentage of Participants Who Achieved HiSCR75 at Week 16	25.7	25.7	40.0

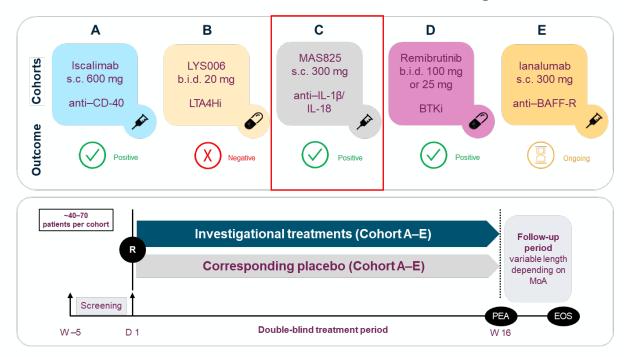
<sup>1.</sup> ClinicalTrials.gov identifier: NCT04988308. Updated November 13, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT04988308 NCT04019041 2. ClinicalTrials.gov/search?term=NCT04988308 2. ClinicalTrials.gov/search?term=NCT04988308 2. ClinicalTrials.gov/search?term=NCT04988308 2. Cli



## MAS825 May Provide Further Clinical Evidence for IL-1 $\beta$ in HS

- Novartis' MAS825 is a bispecific inhibitor of IL-1β and IL-18
- MAS825 arm succeeded in a placebo-controlled platform trial in HS<sup>1,2</sup>
- To our knowledge, there is no other clinical validation of IL-18 inhibition in HS
- Unlike IL-1β, IL-18 is not strongly implicated in the pathophysiology of HS

#### NCT03827798: Phase 2b Platform study in moderate to severe HS



#### **Patients**

- Adult patients aged 18–65 years
- Moderate to severe HS for ≥12 months in ≥2 anatomical areas with ≤15 tunnels
- Cohorts A, C, and E:
   ≥5 inflammatory lesions
- Cohorts B and D:
   ≥3 inflammatory lesions

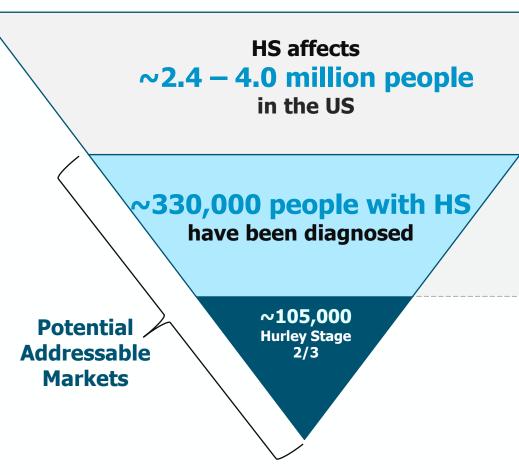


<sup>1.</sup> ClinicalTrials.gov identifier: NCT03827798. Updated January 21, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT03827798

<sup>2.</sup> Kimball AB, et al. Presented at: American Academy of Dermatology; March 8-12, 2024; San Diego, CA

## **Large Unmet Need in HS**

#### Global HS market has multibillion dollar sales potential



- An estimated 0.7 1.2% of people in the US have HS, though some estimates are as high as 2-4%<sup>2</sup>
- HS appears underdiagnosed and underreported with the rate of reported cases in health records estimated at 0.1% of the US population<sup>3</sup>
- We believe tailoring therapy for optimal outcomes will require access to multiple therapies addressing multiple targets
- An estimated 28% of HS cases are Hurley Stage 2, and an additional 4% are Hurley Stage 34
- There is a large population of patients with a marked need for improved treatment options

- 1. Independent Market Analysis by Biotech Value Advisors LLC
- 2. Nguyen TV, et al. J Eur Acad Dermatol Venereol. 2021;35(1):50-61
- 3. Garg A, et al. JAMA Dermatol. 2017;153(8):760-764
- 4. UpToDate as of 02/15/24

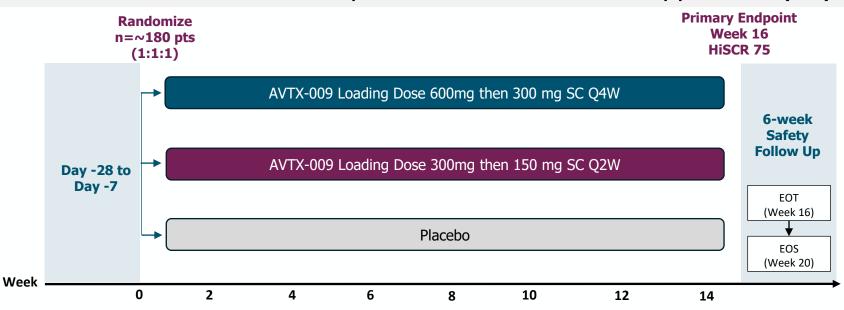


## Phase 2 LOTUS Trial in Hidradenitis Suppurativa (AVTX-009-HS-201)

Efficacy and Safety of AVTX-009 Treatment in Participants With Hidradenitis Suppurativa (HS)

#### **Key Inclusion Criteria**

- Signs and symptoms of HS for at least 6 months prior to baseline as determined by the investigator.
- Total abscess and inflammatory nodule (AN) count of ≥5 at baseline AND HS lesions must be present in at least 2 distinct anatomic areas, at least one of which is Hurley Stage 2 or 3.
- Number of patients who have not failed anti-TNF therapy [anti-TNF naïve or exposed but not failure] will be limited to approximately 40%, the remainder must have failed anti-TNF treatment in the opinion of investigator.



#### **Primary Study Endpoint**

**Primary Endpoint**: Percentage of Participants Achieving Hidradenitis Suppurative Clinical Response HiSCR75 at 16 weeks defined as:

At least a 75% reduction in the total abscess and inflammatory nodule (AN) count, with no increase in abscess count and no increase in draining fistula count relative to Baseline

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

#### **Key Secondary Endpoints:**

- Adverse Events (AEs) and tolerability
- HiSCR50, HiSCR90
- International HS Severity Score System (IHS4)
- AN Count, Draining Fistula Count
- Patient's Global Assessment of Skin Pain (PGA Skin Pain) (NRS30)
- Percentage of subjects with flares
- ADA

#### **Exploratory Endpoints:**

- PK
- HiSQOL, DLQI, PHQ-9
- Biomarkers- CRP, IL-6, potentially other biomarkers

Trial has 80% power to show a HiSCR75 response for each individual arm (based on lutikizumab Phase 2 HiSCR75)

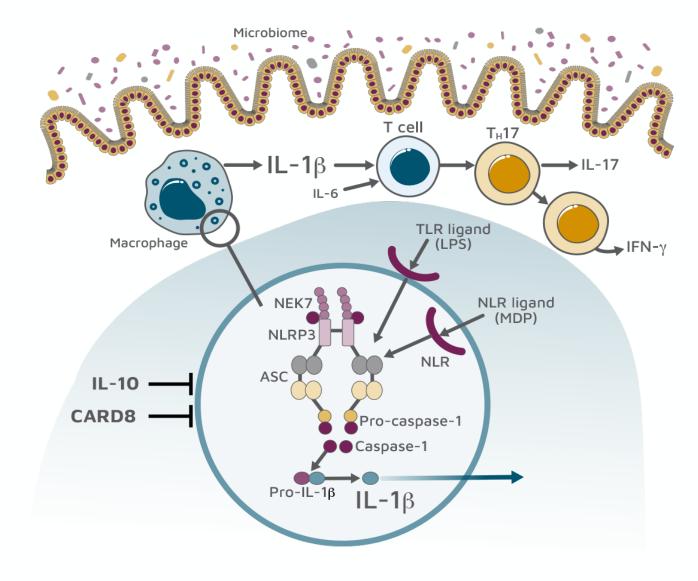


## **Potential Additional Indications**



## **Role of IL-1**β in IBD

- IL-1 $\beta$  plays a central role in inflammation in IBD<sup>1</sup>
  - IL-1β being a key cytokine produced upon inflammasome activation
  - Dysregulated inflammasome activation has been implicated in the pathogenesis of Crohn's Disease (CD)
- IL-1-driven stromal—neutrophil interactions define a subset of patients that do not respond to current therapies <sup>2,3</sup>
- Observed overlap of patients that have IBD and HS<sup>4,5</sup>





<sup>1.</sup> Mao L, et al. Front Immunol. 2018;9:2566

<sup>2.</sup> Friedrich M, et al. Nat Med. 2021;27(11):1970-1981

<sup>3.</sup> Cader MZ, Kaser A. Nat Med. 2021;27(11):1870-1871

<sup>4.</sup> Chen WT, Chi CC. JAMA Dermatol. 2019;155(9):1022-1027

<sup>5.</sup> Zhang M. et al. World J Clin Cases, 2021:9(15):3506-3516

### **Recent IL-1 Trial Initiations in IBD**

- The goal of IBD therapeutics is remission
  - Only a minority of IBD patients obtain remission with current therapies
- AbbVie plans to evaluate lutikizumab, dual-variable-domain interleukin (IL)  $1\alpha/1\beta$  antagonist as monotherapy in UC and in combination with SKYRIZI in Crohn's
  - "...we believe lutikizumab has the potential to be used in combinations to provide transformational levels of efficacy in IBD. We plan to evaluate combo approaches with lutikizumab and Skyrizi... in Crohn's. Our Phase 2 studies in IBD are expected to begin later this year."--Roopal Thakkar, Senior Vice President, Chief Medical Officer, Global Therapeutics --from AbbVie 4Q23 Earnings Call Transcript
- There is an opportunity for greater efficacy for patients with IBD with anti-IL-1 $\beta$  as a monotherapy and in combination



# **Executive Summary**



## **Executive Summary and Development Timeline**

#### Potential for a Best-in-Disease Profile in HS

- High potency and favorable half-life may allow for improved efficacy and convenient dosing
- Potential in other autoimmune diseases

#### Key Clinical Evidence Supporting IL-1β in HS

- In a large, well controlled Phase 2 trial (NCT05139602), lutikizumab validates IL-1 $\beta$  targeting in HS. Efficacy was comparable with other HS therapies despite a more severe patient population<sup>1</sup>
- Clinical evidence suggests anti-IL-1 $\alpha$  therapy is not effective in HS<sup>2,3</sup>
- MAS825 (IL-1β/IL-18 bispecific) showed positive results in a Phase 2 randomized controlled study (NCT03827798)<sup>4</sup>
- Monospecific IL-1b inhibition may outperform bispecifics that address targets that are unvalidated (IL-18) or known not to contribute to efficacy (IL-1a)
- HS Anticipated to Become Multi-Billion Dollar Market
- IND is active permitting initiation of Phase 2 LOTUS Trial
- First Patient Enrolled in Phase 2 LOTUS Trial Expected 2H 2024
- Expected Cash Runway into 2027



<sup>1.</sup> Kimball AB, et al. Presented at: American Academy of Dermatology; March 8-12, 2024; San Diego, CA

<sup>2.</sup> ClinicalTrials.gov identifier: NCT04988308. Updated November 13, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT04988308 NCT04019041

<sup>3.</sup> ClinicalTrials.gov identifier: NCT04019041. Updated July 27, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT04988308

<sup>4.</sup> Kimball AB, et al. Presented at: American Academy of Dermatology; March 8-12, 2024; San Diego, CA

## Appendix



### **Financial & Investor Information**

#### NASDAQ: AVTX

#### The following data as of March 31, 2024

- Cash and cash equivalents \$110.2M
- Expected cash runway into 2027
- Outstanding common shares 1.0M
- Fully diluted shares 35.4M<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Based on 1.0 million shares of common stock outstanding, 22.4 million shares of common sock underlying outstanding convertible non-voting Series C preferred stock, 12.0 million shares of common stock outstanding warrants and 7,513 shares of common stock underlying outstanding stock options. Subject to and upon Avalo stockholder approval, each share of convertible non-voting Series C preferred stock will automatically convert into 1,000 shares of Avalo common stock, subject to certain beneficial ownership limitations. Approximately 12.0 million warrants were issued on March 28, 2024 that are exercisable for approximately \$5.80 per underlying share of common stock for an aggregate of up to \$69.4 million of gross proceeds. These warrants are exercisable for common stock, or an equivalent amount (as converted to common stock) of non-voting convertible preferred stock in the event that certain beneficial ownership limitation applicable to each holder is reached, until the earlier of five years from issuance or 30 days after the public announcement of the first patient dosed in a Phase 2 trial of AVTX-009 in hidradenitis suppurativa.



# NASDAQ:AVTX

www.avalotx.com

