Avalo Therapeutics, Inc. (AVTX)

Avalo Acquires Anti-IL-1β mAb and Announces up to \$185M Private Placement

March 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 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: satisfaction of customary closing conditions related to the private placement; the intended use of the proceeds from the private placement; 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; 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 fillings 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** 



Private company largely consisting of Phase 2-ready 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
Topline Results 2026

**NASDAQ Listed: AVTX** 

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



### **Avalo Therapeutics Pipeline**

Compound	Indication	PreClin	P1	P2	Р3	Anticipated Milestones
AVTX-009	Hidradenitis suppurativa (HS)					P2 Topline Results 2026
Anti-IL-1β mAb	Autoimmune Indication TBD					TBD
Next Generation IL-1β (extended half-life)						TBD
Quisovalimab AVTX-002, Anti-LIGHT mAb						Under strategic review
AVTX-008 BTLA agonist fusion protein						Under strategic review



### **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-1 $\beta$  inhibition may outperform bispecifics that address targets that are unvalidated (IL-18) or known not to contribute to efficacy (IL-1 $\alpha$ )
- We believe AVTX-009 has a high probability of success in HS
- HS Anticipated to Become Multi-Billion Dollar Market
- HS Topline Results Expected in 2026
- 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



**Chris Sullivan**Chief Financial Officer



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



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



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

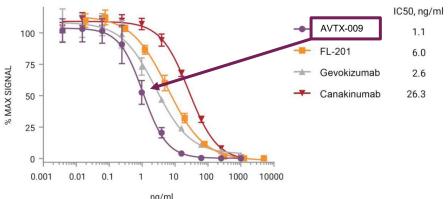
#### Clinical experience: 245 patients studied in Phase 1 & Phase 2 trials<sup>3</sup>

- 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

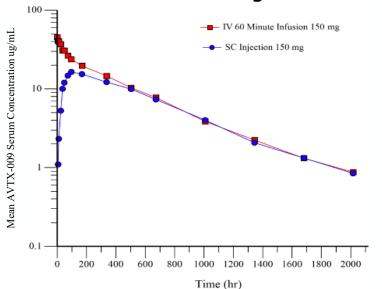
#### Suitable for subcutaneous and intravenous formulation

- Stable 150 mg/ml dosage form
- Plan for commercial presentation to be an autoinjector

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



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



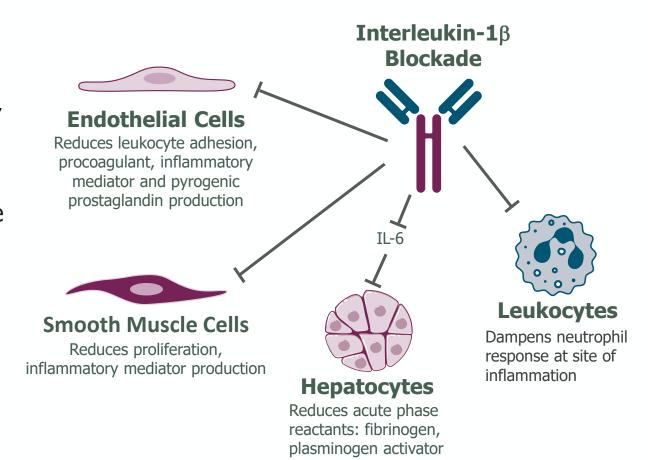
Data on file

<sup>2.</sup> Bihorel S, et al. AAPS J. 2014;16(5):1009-1017

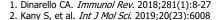
<sup>3.</sup> Sloan-Lancaster J, et al. Diabetes Care. 2013;36(8):2239-2246

### **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



inhibitor, CRP





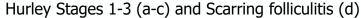
# Hidradenitis Suppurativa (HS)



### **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>



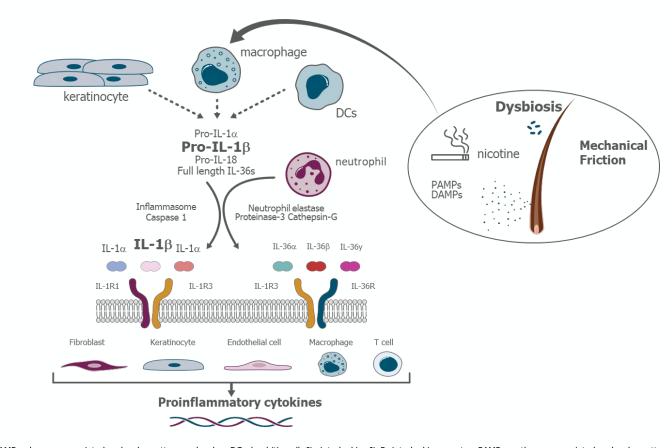


<sup>1.</sup> Nguyen TV, et al. J Eur Acad Dermatol Venereol. 2021;35(1):50-61

<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 NCT05139602⁵
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 criteria



<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;

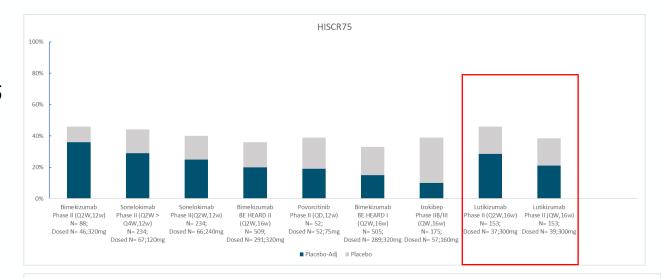
<sup>3.</sup> Presentations at American Academy of Dermatology (AAD 2023), March 17-21 New Orleans, LA and 2023 European Academy of Dermatology and Venereology (EADV 2023), October 11-14, Berlin, Germany

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

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

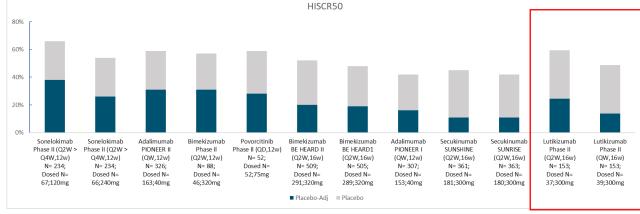
# Lutikizumab Efficacy Comparable to Other Agents in a More Severe Patient Population that Failed TNF- $\alpha$ Therapy<sup>1</sup>

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

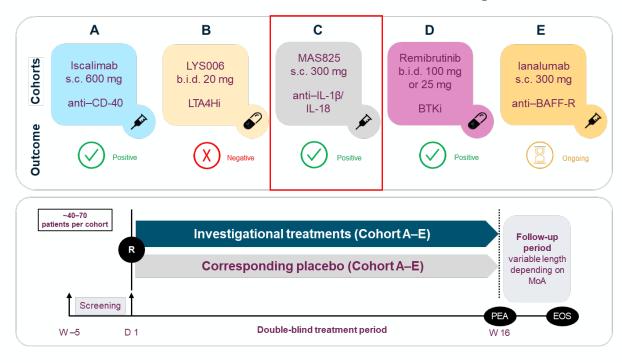
<sup>1.</sup> ClinicalTrials.gov identifier: NCT04988308. Updated November 13, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT04988308 NCT04019041 
2. ClinicalTrials.gov identifier: NCT04019041. Updated July 27, 2023. Accessed March 24, 2024. https://clinicaltrials.gov/search?term=NCT04988308



### 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

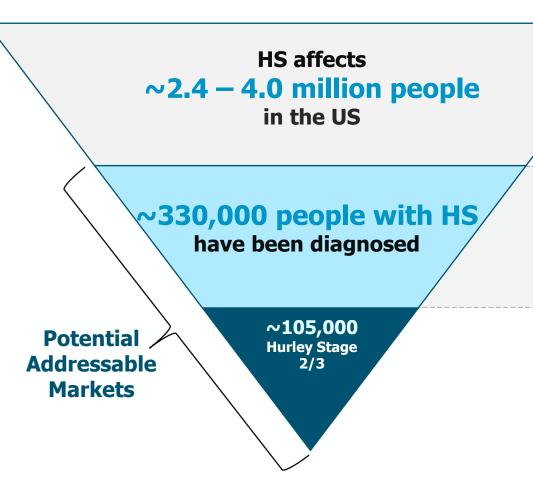
2. Kimball AB, et al. Presented at: American Academy of Dermatology; March 8-12, 2024; San Diego, CA



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

### **Large Unmet Need in HS**

Global HS market has multibillion dollar sales potential with sponsors of several approved products projecting annual sales of  $$1.5 - 3B^1$$ 



- 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

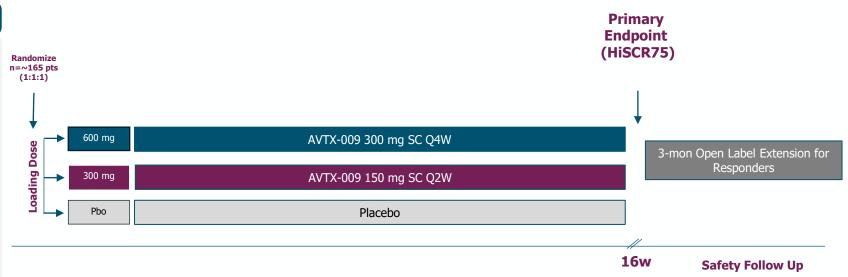


### **Proposed Phase 2 Study in Hidradenitis Suppurativa (HS)**

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

#### **Key Inclusion Criteria**

- Clinical diagnosis of hidradenitis suppurativa (HS) for at least 1 year prior to Baseline as determined by the investigator.
- Total abscess and inflammatory nodule (AN) count of <u>></u>5 at Baseline
- HS lesions must be present in at least 2 distinct anatomic areas.
- Must have failed anti-TNF treatment for HS



#### **Primary Study Endpoint**

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

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

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

- HiSCR50, HiSCR90 and HiSCR100
- Safety and tolerability
- PK

#### **Exploratory Endpoints:**

• 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)

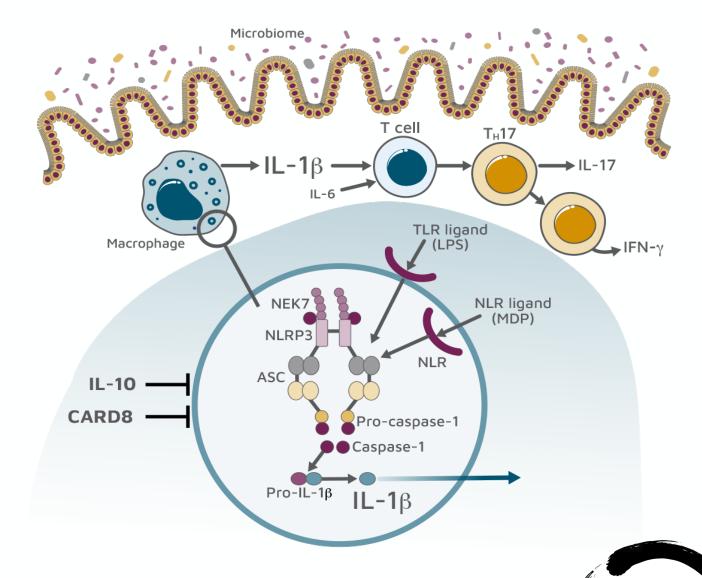


### **Potential Additional Indications**



### **Role of IL-1** $\beta$ 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-1 $\beta$  inhibition may outperform bispecifics that address targets that are unvalidated (IL-18) or known not to contribute to efficacy (IL-1 $\alpha$ )
- We believe AVTX-009 has a high probability of success in HS
- HS Anticipated to Become Multi-Billion Dollar Market
- HS Topline Results Expected in 2026
- 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

- In March 2024, Avalo entered into a private placement financing:
  - Gross proceeds of up to \$185M<sup>1</sup>, with initial funding at close of \$115.6M
  - Net proceeds expected at close of approximately \$105M<sup>2</sup>, which is expected to provide cash runway into 2027
  - Expected to close on March 28, 2024
  - On an as-converted basis and after accounting for the acquisition of AlmataBio, Inc. and the financing (excluding the exercise of the 12.0M warrants), the total number of shares of Avalo common stock outstanding would be approximately 23.4M
- The following data is as of December 31, 2023 and excludes the transactions above:
  - Cash and cash equivalents \$7.4M
  - Outstanding shares of common stock 0.8M
  - Fully diluted shares 0.8M

<sup>&</sup>lt;sup>2</sup> Net proceeds include estimated transaction costs from both the private placement financing and the acquisition of AlmataBio, Inc. The estimated transaction costs do not include the \$7.5 million milestone payment due to the former AlmataBio stockholders upon close of the private placement financing.



<sup>&</sup>lt;sup>1</sup> Includes \$115.6M of upfront funding and \$69.4M to be received if and upon full exercise of the warrants issued. The warrants are exercisable for approximately \$5.80 per underlying share of common stock and 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

