

# Forward Looking Statements



This presentation contains summary information about ABVC BioPharma, Inc. ("ABVC") as of the date hereof. The information in this presentation is of general background and contains an overview and summary of certain data selected by the management of ABVC. It does not purport to be complete.

This presentation is not a prospectus, disclosure document or offering document under the law of any jurisdiction. It is for informational purposes only. This presentation is not investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. A recipient must make their own independent investigations, consideration and evaluation of ABVC and the offer and ABVC recommends that investors should obtain their own professional advice before making any investment decisions in the company. This investor presentation shall also not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any states or jurisdictions in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No registered offering of securities shall be made except by means of a prospectus meeting the requirements of section 10 of the Securities Act of 1933, as amended.

This document has been prepared based on information available at the time of presentation. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information, opinions and conclusions contained in this presentation or any omission from this presentation or of any other written or oral information or opinions provided now or in the future to any person. While reasonable care has been taken to ensure that facts stated in this presentation are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or its completeness and there is no guarantee that any of the outcomes disclosed will occur by the time specified or at all.

To the maximum extent permitted by law, neither ABVC nor their respective officers, directors, employees, advisors and agents, nor any other person, accepts any liability as to or in relation to the accuracy or completeness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or any omission from this presentation or of any other written or oral information or opinions provided now or in the future to any person.

Some of the statements appearing in this presentation are in the nature of forward looking statements. You should be aware that such statements are predictions based on assumptions, and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industry in which ABVC operates as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets and other factors that are in some cases beyond ABVC's control. As a result, any or all of the ABVC's forward-looking statements in this presentation may turn out to be inaccurate. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this presentation. These forward-looking statements speak only as of the date of this presentation, and we assume no obligation to update or revise these forward-looking statements for any reason.

## **ABVC BioPharma Business Model**



## **Discovery**

#### **Translation**

## Commercialization

- ✓ Identify promising drugs or medical devices that have successfully completed preclinical studies and/or Phase I safety studies at worldrenowned research institutions
- ✓ In-license compounds and devices of interest to further develop

✓ Conduct Phase I and Phase II clinical studies to demonstrate safety and efficacy profiles

- ✓ Upon successful completion of Phase II trials, ABVC seeks to out-license or sell the asset to a large pharmaceutical company
- Earn royalties from licensing transactions

Our Clinical
Study Partners:













# Financial and Strategic Highlights



## Key Financial Achievements<sup>2</sup>:

Revenue Growth: \$117,142 in Q2 2024, up from \$6,109 in Q2 2023.

Earnings Per Share (EPS): Improved to -\$0.09 in Q2 2024, up 86.8% from -\$0.68 in Q2 2023.

Shareholders' Equity: \$7.8 million as of June 30, 2024.

## Patent and FDA Approvals:

MDD and ADHD Treatments: Multiple patents received in the US, Taiwan, and Australia.

Phase II trials completed for MDD; Phase IIb trials ongoing for ADHD.

## Strategic Licensing Agreements<sup>1,4</sup>:

Psychiatric Drug with AiBtl BioPharma, Inc.: Potential income: Up to \$667 million. Upfront payments: \$460M received (46M shares at \$10 per share<sup>3</sup>) in November 2023. Potential milestone payment: \$7 million in cash.

Vitargus® Licensing with ForSeecon Eye Corporation: Potential income: Up to \$187 million. Milestone payment received: \$116,000 in June 2024. Vitargus® was approved for the next trial phase by the Australian TGA. GMP facility construction is underway in Taiwan.

Oncology Products Licensing with OncoX BioPharma, Inc.: Potential income: Up to \$105 million.



# **Leadership Team**





Uttam Yashwant Patil, PhD Chief Executive Officer and Interim CFO







**Leeds Chow** Chief Financial Officer<sup>1</sup>





T. S. Jiang, PhD Chief Scientific Officer









MD, PhD







Rundles, PhD





Thomas Laughren, PhD





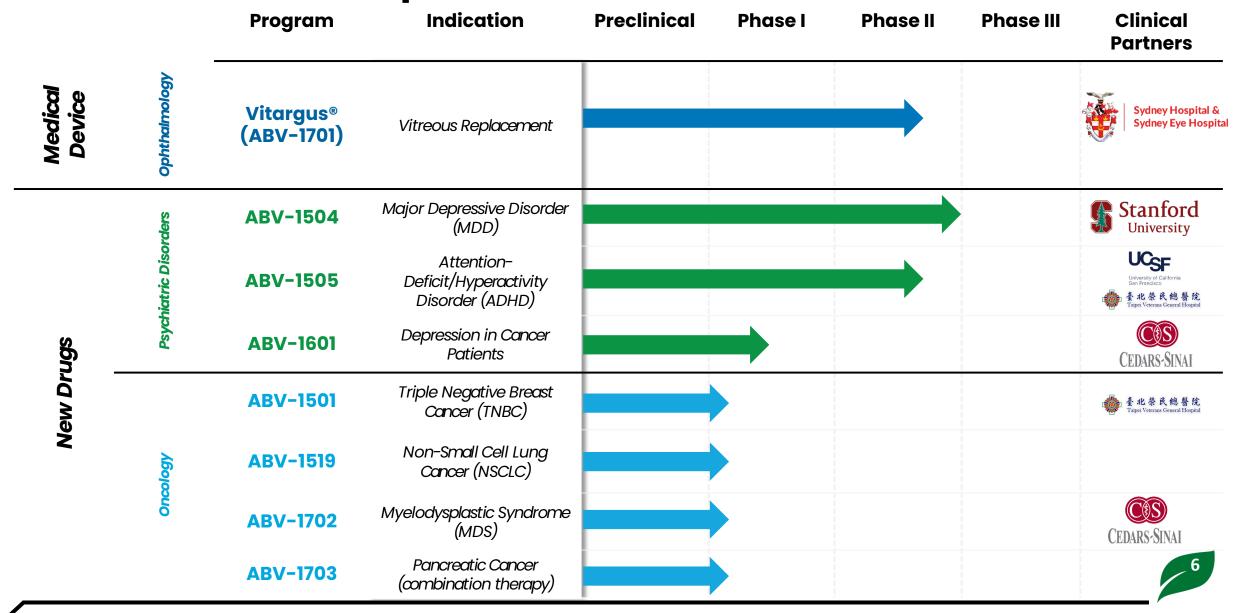






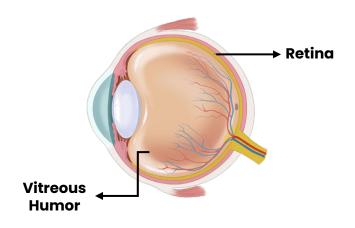
# **Robust & Diverse Pipeline**





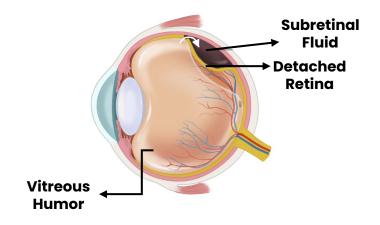
# Vitargus® for Retinal Detachment & Vitreous Hemorrhage





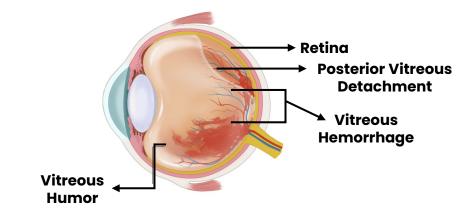
## **Healthy Eye**

Vitargus® is a Vitreous
substitute that could
potentially be used in retinal
detachment and vitreous
hemorrhage surgeries to
accelerate healing and
eliminate the need for a
second surgery



#### **Detached Retina**

- · Macular Hole
- Macular Pucker



## **Vitreous Hemorrhage**

- Diabetic Retinopathy
- Retinal Vein Occlusion
- Vitreous Body Injury

Vitrectomy Surgery

# Vitargus®: Solving an Unmet Need



## **Key Takeaways**

- Vitreous is a gel-like substance that helps the eye maintain a round shape and keeps the retina in place during and after retinal re-attachment surgery.
- Current Vitreous substitutes

   (Air, Silicone oil, Octafluoropropane, Sulfur hexafluoride)
   have disadvantages<sup>2, 3,4</sup> that often lead to medical complications and additional surgeries
- Leveraging Vitargus®, the patient does not need to remain in a face-down position and has improved visual acuity, as demonstrated in clinical trials

Functions of Vitreous
Substitute

- Fill up the vacant space after vitrectomy to maintain the eye shape
- Provide retina support for preventing re-detachment

Current Short-term
Vitreous Substitutes

- Air, Octafluoropropane(C<sub>3</sub>F<sub>8</sub>) or Sulfur hexafluoride(SF<sub>6</sub>)
- Readily absorbed
- Maintaining face-down position (a week)
- · Retinal re-detachment easily

Current Long-term
Vitreous Substitutes

- Silicone oil, Perfluoron™
- Emulsification
- · Requires a second surgery to remove
- Long-term implant complications

15% of retinal re-attachment surgeries fail with silicone oil<sup>1</sup>

3. Current Situation and Challenges in Vitreous Substitutes

<sup>4.</sup> Expert Reviews: Vitreous Substitutes



# Vitargus® Total Addressable Market



~225,000 vitrectomies are performed annually in the U.S. alone<sup>1</sup>

**\$2,280** cost of Perfluoron Kit<sup>3</sup> (sold by Alcon Labs and distributors)

~\$500M+ Annual Market

The U.S. remains the largest market, however, the demand in Asia-Pacific represents the fastest growing market<sup>4</sup>

ABVC plans to develop and commercialize Vitargus® in Asia and Europe prior to seeking FDA approval

#### Reimbursed indication growth<sup>1, 2</sup>

~900k patients with diabetic retinopathy in the U.S. have "vision-threatening" retinopathy but are not eligible for vitrectomy surgery due to age, coverage, and various other factors



<sup>.</sup> Vanderbilt University: Prospective Retinal and Optic Nerve Vitrectomy Evaluation Study 3. Grayline Medical; Medex Supply; Serfinity Medical

<sup>2.</sup> JAMA Ophthalmology

# Vitargus® for Retinal Detachment & Vitreous Hemorrhage



## Vitargus® Advantages:

Best-in-Class Hydrogel Vitreous Substitute

- Aqueous formulation for ocular injection;
  Gelation within 3 minutes at body temperature
  & removes need to lie face down
- Raw material is hyaluronic acid, a natural substance in the body
- Biodegradable substance eliminates the need for second surgery
- Does not cause high intraocular pressure (low thermal expansion coefficient)
- 5 Able to see clearly right after the treatment

	Vitargus®	Air /Gas	Silicone Oil /Perfluoron
Face up positioning		X	X
1- day vision recovery		X	X
Does not require 2 <sup>nd</sup> surgery			X

Vitargus® is believed to be superior to current vitreous substitutes by reducing patient discomfort and need for second surgery while enabling a quick recovery

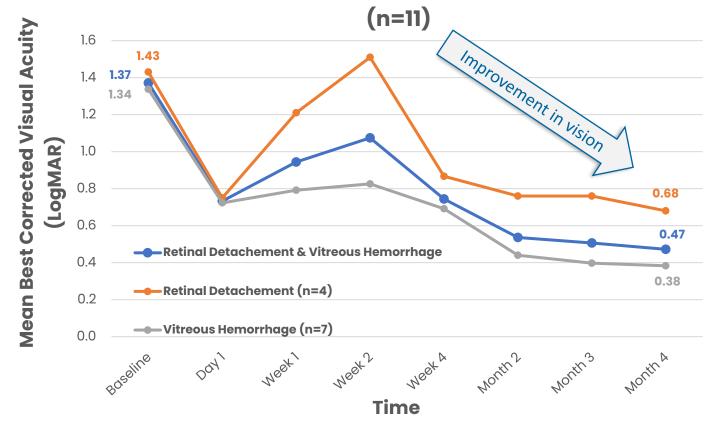
# Vitargus®: Completed First in Human Feasibility Study<sup>1</sup>



## **Key Takeaways**

- Vitargus® was well-tolerated with no apparent toxicity to ocular tissues
- A statistically significant improvement from baseline in best corrected visual acuity (BCVA)
- The optical properties of Vitargus® allowed the patients to see well and facilitated visualization of the fundus immediately following surgery.
- Vitargus® sets as a stable semisolid gel adhering to the retina and maintains its position without the need of face-down positioning.

## Significant BCVA Improvement Over 4 Months



Best Corrected Visual Acuity (BVCA) is the standard to assess visual acuity, or 'sharpness of vision' measured by the ability to perceive letters and numbers. The lower score indicates the ability to read further down the ETDRS Chart.



# Vitargus® Phase II Clinical Study

Initiated in March 2023, expected to be completed 2H 2024<sup>1</sup>



#### **Key Inclusion Criteria**

- Uncomplicated retinal detachment, defined as the first instance of a small macular hole and retinal tears.
- Diagnosis of vitreous hemorrhage that requires vitrectomy surgery.
- BCVA (Best Corrected Visual Acuity) of 20/40 to 20/2000.
- Able to provide written informed consent, attend all scheduled visits, and comply with all study procedures.

# Multi-center, randomized open-label n=40

#### Active Vitargus® Arm (n=20)

Enrolling 20 patients to receive Vitargus® in conjunction with a Vitrectomy

#### Active Comparator Arm (n=20)

Enrolling 20 patients to receive SF<sub>6</sub> Gas OE in conjunction with a Vitrectomy

#### **Primary Endpoint**

To assess the safety and effectiveness of the ABV-1701 OE when compared to the SF<sub>6</sub> Gas OE.

#### **Key Secondary Endpoints**

- Efficacy for retinal attachment repair
- 2. Hydrogel degradation at day 90
- 3. Best Corrected Visual Acuity (BCVA) post Vitrectomy



The unique properties of Vitargus® hold promise for its use following a vitrectomy. 2

-Andrew Chang, MBSS, PhD

American Academy of Ophthalmology (AAO) 2019, San Francisco



. Clinicaltrials.gov (NCT05414747)

# **Botanical-Based Pipeline for Psychiatric Disorders**



Developing a suite of botanical-based assets to combat rising addiction

#### **ABV-1504**

Major Depression Disorder (MDD)

#### **ABV-1505**

Attention-Deficit/Hyperactivity
Disorder (ADHD)

#### **ABV-1601**

Depression in Cancer Patients

Clinical	Status
----------	--------

Safety

## Phase II completed

No SAE's directly from the drug have been reported

~9 million adults

(medication-treated

 $MDD_1$ 

# Phase IIa completed, Phase IIb in progress

No SAE's directly from the drug have been reported

## Phase I initiated

# No SAE's directly from the drug have been reported

~1.9 million newly diagnosed cancer patients / year<sup>6</sup>

(~247k w/ depression<sup>7</sup>)

**U.S. Market Size** 

2 National Library of Medicine: MDD Drug Cost Comparison

U.S. Addressable

**Patient Population** 

~\$12.4 billion<sup>2</sup>

~\$10 billion<sup>3,4</sup>

~11 million adults<sup>5</sup>

~\$342 million annually<sup>2</sup>

13

<sup>. &</sup>lt;u>National Library of Medicine: Major Depressive Disorder (MDD) Prevalence</u> 3. <u>ADHD Statistics and Fact</u>

<sup>4.</sup> SingleCare: 2022 ADHD Medication Costs

<sup>&</sup>lt;u>facts</u> 6. <u>American Cancer Society: Cancer Facts & Figures 2022</u>
<u>ID Medication Costs</u> 7. <u>National Library of Medicine: Prevalence of Depression in Cancer Patients</u>

## ABV-1504: Innovative Botanical Asset for MDD



#### **IP-Protected Process**

- 1 Raw Materials (dry roots of Yuan Zhi)
- 2 Extraction
- 3 Purification
- 4 Isolation
- 5 Encapsulation

No methylation process required

#### **ABV-1504 Summary Highlights**

- ABV-1504 (PDC-1421 capsule) is a singleherb botanical drug extract from the dry root of *Polygala tenuifolia* Willd
- Safety assessment: Demonstrated its safety with no SAEs from the completed Phase I and Phase II studies.
- Efficacy assessment: Demonstrated its efficacy for treating Major Depressive Disorder (MDD) patients from the Phase II clinical studies.
- Stability at least 36 months post encapsulation



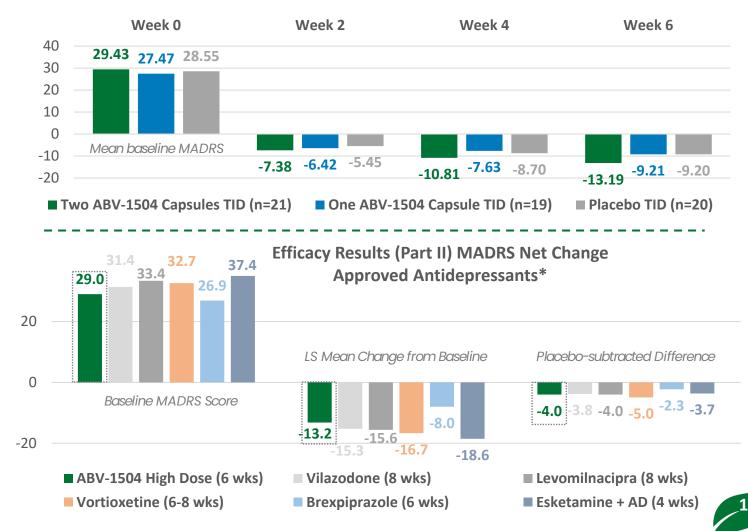
# ABV-1504 Completed Phase II Highlights



#### Efficacy Results (Part II) MADRS Net Change - ITT

#### **Key Takeaways**

- The High-Dose group (760 mg TID) of ABV-1504 demonstrated a clinically meaningful score in MADRS compared to the Placebo group.
- Compared with prior approved Fluoxetine(Prozac) antidepressant, ABV-1504 High-Dose demonstrated a much better MADRS score (4.1point reduction) from Placebo group than that of Fluoxetine (2.3-point reduction).
- Treatment of ABV-1504 did not increase any risks in terms of vital signs, physical exams, suicidal ideation, and suicidal behavior during treatment and follow-up period.
- No severe adverse events (SAEs) occurred.
- Demonstrated ABV-1504 was safe and well-tolerated for further clinical advancement.



## ABV-1504 Phase III Clinical Plan



Plans to initiate after the end of Phase II meeting with the FDA expected in 2024

#### **Key Inclusion Criteria**

- Outpatient adults 18-75 years old
- Met criteria for MDD without psychotic features as defined by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Test Revision (DSM-IV-TR)
- 17-item HAM-D total score ≥ 20 and CGI total score ≥ 4

# Multi-National, Randomized (1:1:1), Double Blind Study n=60

Participants to receive one 380mg ABV-1504 capsule and one placebo three times / day (TID)

Participants to receive two 380mg ABV-1504 capsule three times / day (TID)

Participants to receive two placebo capsules three times / day (TID)

#### **Primary Endpoint**

Change from Baseline to Week 8 on the MADRS (Montgomery-Asberg Depression Rating Scale) total score

#### **Key Secondary Endpoints**

- HAM-D-17, CGI, SDS, and HAM-A change from baseline to Week 2, 6 and 8)
- Percentage of responders (defined as
   ≥ 50% decrease from baseline in total score) in MADRS by Week 6 and 8
- 3. Percentage of participants in MADRS remission at Week 6 and 8 (remission defined as MADRS total Score ≤ 10)



Plant-derived treatments may be more attractive to patients with depression, who may be hesitant to take pharmaceuticals.

#### -Charles DeBattista, MD

Professor of Psychiatry and Behavioral Sciences, Stanford University



# ABV-1505: Innovative Botanical Asset for ADHD



## **IP-Protected Process**

- 1 Raw Materials (dry roots of Yuan Zhi)
- 2 Extraction
- 3 Purification
- 4 Isolation
- 5 Encapsulation

No methylation process required

#### **ABV-1505 Summary Highlights**

- ABV-1505 (PDC-1421 capsule) is a singleherb botanical drug extract from the dry root of Polygala tenuifolia Willd
- Safety assessment: Demonstrated its safety with no SAEs from the completed Phase I and Phase II (Part I) clinical studies.
- Efficacy assessment: Demonstrated its efficacy for treating ADHD patients from the completed Phase II clinical studies (Part I).
- IP Protection: Global patent granted including US, EU and Asian countries.

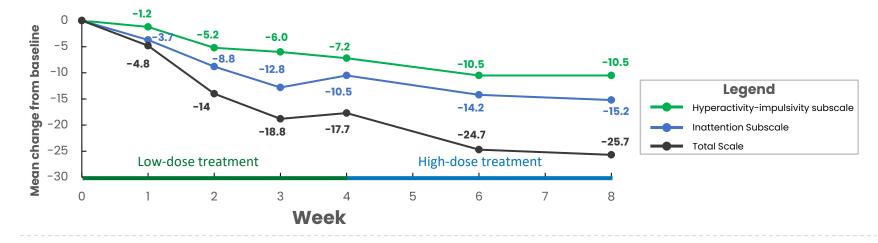
# ABV-1505 Completed Phase IIa in Adults with ADHD<sup>1</sup>



#### **Key Takeaways**

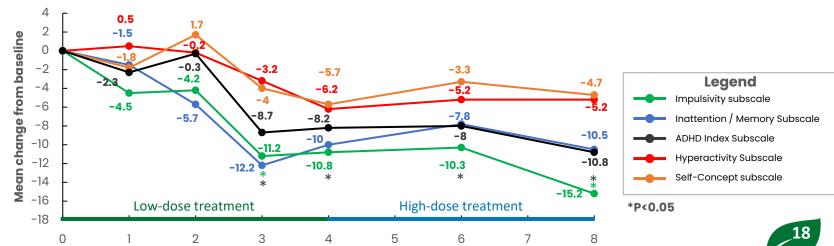
- Mean change of ADHD-RS-IV Score from baseline to 8 weeks treatment were:
  - 83.3% (5/6) subjects in the ITT population and 80% (4/5) subjects in the PP population achieved an improvement of 40% or greater in ADHD Rating Scale (Primary Endpoint).
- Mean change in CAARS-S:S from baseline to 8 weeks treatment were:
  - -10.8 and -15.2 (p=.0313) in the ITT population
  - -10.6 and -14.0 (p=.0625) in the **PP** population
- No severe adverse events (SAEs) or deaths occurred.

#### ITT Population Mean Change of ADHD-RS-IV Score from Baseline



#### ITT Population Mean Change of CAARS:S-S Score from Baseline

Week



1. ABVC BioPharma Presents ABV-1505 Phase IIa Results at APSARD 2023

## **ABV-1505 Phase Ilb Clinical Plan**



Initiated April 2023, expected to be completed by end of Q4-2024

The study will enroll 69 subjects initially. After 8 weeks, an interim analysis will be conducted to determine if it is necessary to enroll an additional 30 subjects

#### **Key Inclusion Criteria**

- Ability to discontinue use of psychotropic medications for the treatment of ADHD symptoms at screening
- Meet operational criteria for Adult ADHD according to the Diagnostic and Statistical Manual of Mental Disorders, 5<sup>th</sup> edition (DSM-5)
- Total score of 28 or higher of ADHD Rating Scale-Investigator Rated (ADHD-RS-IV)
- Have moderate or severe symptoms of ADHD with a score of 4 or higher in Clinical Global Impression-Severity (CGI-S) at screening

#### Multi-center, Randomized (1:1:1), Double-Blind, Placebo-controlled (n=99)

Participants to receive one 380mg ABV-1504 capsule and one placebo three times / day (TID)

Participants to receive one 380mg ABV-1504 capsule and one placebo three times / day (TID)

Participants to receive one 380mg ABV-1504 capsule and one placebo three times / day (TID)

#### **Primary Endpoint**

Improvement of 40% or more in ADHD Rating Scale-Investigator Rated (ADHD-RS-IV) from baseline to 8 weeks

#### **Key Secondary Endpoints**

- Safety and incidence of Adverse Events and Serious Adverse Events
- Symptom Remission in ADHD-RS-IV total score ≤ 18 up to 8 weeks
- Change from baseline in ADHD-RS-IV, CAARS-S:S and E-SCT score up to 8 weeks
- 4. CGI-I score of 2 or lower up to 8 weeks treatment



Based on its well-tolerated safety profile and preliminary efficacy shown in Phase IIa study, ABV-1505 has promise as a treatment for ADHD.\*

-Keith McBurnett, PhD

Professor of Psychiatry at UCSF, San Francisco

\*As stated at the 2023 Conference of the American Professional Society of ADHD and Related Disorders (APSARD) Poster Session



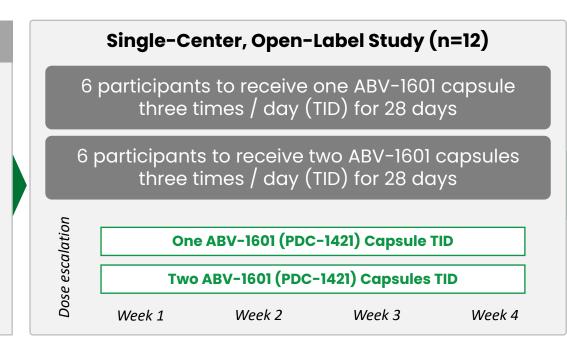
## **ABV-1601 Phase I Clinical Plan**



Initiated Q3 2024, expected to be completed by end of 2025

#### **Key Inclusion Criteria**

- Confirmed diagnosis of Stage I, II, or III cancer & Histologically-proven malignancy
- Receiving or within one year of receiving cancer treatment with radiation and/or chemotherapy
- Montgomery-Åsberg Depression Rating Scale (MADRS) ≥ 20 (moderate to severe depressive symptoms)
- Duration of depressive symptoms ≥ 2 weeks by patient report.
- No active/acute suicidality requiring immediate care or psychiatric hospitalization



#### **Primary Endpoint**

Safety, AE's, and SAE's related to ABV-1601
Score on the Therapeutic Effect subscale of the CGI Efficacy Index

Score on the Side Effects subscale of the CGI Efficacy Index

Score on FIBSER questionnaire C-SSRS rating scale

#### **Key Secondary Endpoints**

1. Change in MADRS total score and HADS total score from baseline to Week 1-5



Scott Irwin, MD, Ph.D., and the lead investigator of this study are continuing to work towards understanding the safety of ABV-1601 at similar doses in several other studies.

-Scott Irwin, MD, PhD

Professor of Psychiatry & Behavioral Neurosciences, Cedar-Sinai

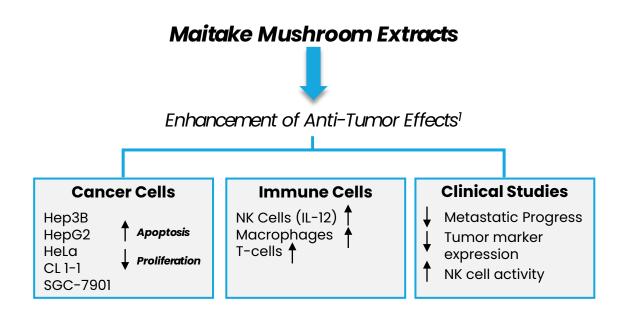


# Early-Stage Oncology Pipeline Overview



#### Maitake API Overview: BLEX 404

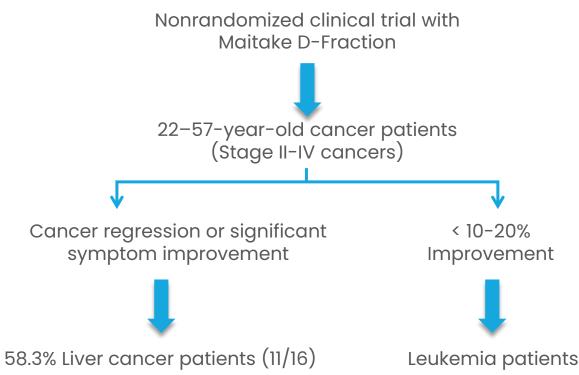
- The API of our early-stage oncology portfolio is BLEX 404, a beta-glucan characterized by a beta-1,6-linked glucose core with beta-1,3linked glucose branches and beta-1,3-linked glucose core with beta-1,6-linked glucose branches
- The drug substance, BLEX 404 used for the study is the MD-fraction of Grifola frondosa, extracted and fractionated from mycelia and fruit bodies of Maitake mushroom.
- The drug product BLEX 404 is formulated into an oral liquid dosage form (40 mg/mL of BLEX 404).



# Early-Stage Oncology Pipeline Overview (Cont.)

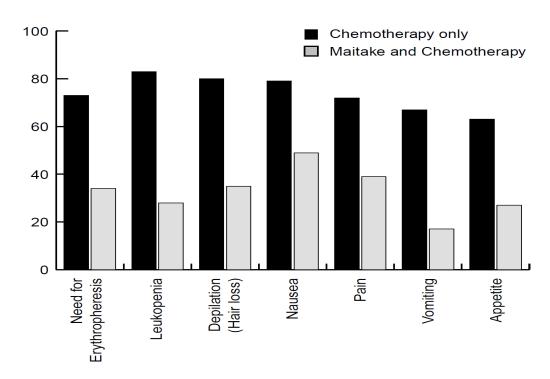


# External Research Demonstrating Improved Cancer Symptoms with Maitake Mushroom<sup>1</sup>



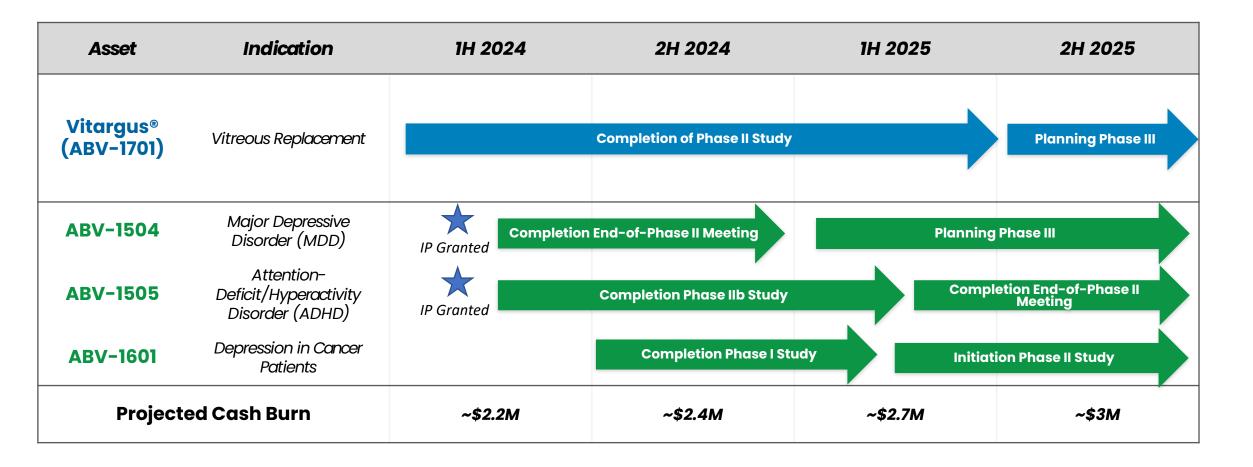
68.8% Breast cancer patients (11/16) 62.5% Lung cancer patients (5/8) Leukemia patients
Stomach cancer patients
Brain cancer patients

#### Amelioration of chemotherapeutic sideeffects<sup>1</sup>



# Near-Term Milestones & Use of Proceeds





Multiple near-term clinical catalysts expected by the end of 2024



**NASDAQ: ABVC** 

Uttam Patil Ph. D. 44370 Old Warm Springs Blvd. Fremont, California 94538

uttam@ambrivis.com

**Investor Relations Contact:** 

(845) 291-1291 info@ambrivis.com