

Unleashing Immune Potential



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Brief history of AVM Biotech, AVM0703, and mobilization of Gamma Delta⁺ NKT cells



AVM Executive Management



Theresa A. Deisher, Ph.D.

Founder and CSO

Theresa holds a doctoral degree in Molecular & Cellular Physiology from Stanford University School of Medicine, holds over 47 issued patents and discoveries in clinic, and has had extensive scientific and management experience in the commercial biotechnology field including Genentech, Repligen, ZymoGenetics, Immunex and Amgen.





Joseph Luminiello

CEO

Joe has 33 years of commercial pharmaceutical experience including the launch of several successful drugs ranging from (\$900m to over \$3B), held senior sales positions with sales remit of over \$1B and has led large and small organizations. Joe has held various C-suite positions in start-up biopharmaceutical companies including two CEO positions.

John Verniero

COO

John has over 30 years of global experience in the biopharmaceutical and precision medicine analytics and technology industries including Merck, Amgen and Integra Connect building finance, sales, marketing, operations, and business development teams. John has successfully launched numerous small and large molecule products. He holds an MBA from Duke University and BA in Economics and Political Science from Drew University.



Brian Andersen

CCO

Brian has 20 years experience as a corporate executive in the pharmaceutical and biotech industries including leading development efforts in startup companies, launching new products, building specialty pharmacy distribution networks, as well as generating and executing marketing plans. He received his BSc in Biology from the University of Illinois and MBA from Northwestern University.



Janet R. Rea

SVP Regulatory

Janet has over 35 years experience in clinical development through commercialization in biologics and small molecules. She received her B.S. degree in Microbiology and her Masters in Public Health from the University of Washington, where she has also served as Clinical Assistant Professor in the Biomedical Regulatory Affairs Certificate and Master's Program.

The power of AVM-NKT cells

The novel combination of properties results in cancer cell death within hours



Exhibits gamma/delta properties, enabling the targeting of multiple cell types.



As an NKT cell, AVM-NKT cells bridge the gap between the innate and adaptive immune system allowing, among other things, T cells to gain "memory".



AVM-NKT cells are highly cytotoxic by themselves.



AVM0703 mobilizes AVM-NKT and cytotoxic T cells

CD3 levels correlate with the activation level of NKT cells and Ly6G levels correlate with how potently they can engulf/phagocytize tumor cells and potentially viruses.



AVM-NKT are CD49b+ and CD3 very bright, compared to known NKT which express CD3 with Mean Fluorescent Intensity (MFI) one log lower than AVM-NKT. The brightness correlates to activity.





AVM-NKT express very high CD3 and Ly6G levels, required for antitumor and antiviral activity. Black dots are 48 hr post 18 mg/kg HED AVM0703. Placebo levels are grey dots encircled by black line for comparison.



AVM0703 mobilized immune cells are dramatically more active than ordinary immune cells

Side by side comparison 48 hours after placebo or single AVM0703 administration

Placebo



Tumor Capsule Volume: 956 mm³; L 15.06 mm; W 11.27 mm; **0.54 gm** Some tumor is killed (brown region) by **ordinary** immune cells.

Living tumor (purple region) is growing as **ordinary** immune cells cannot overcome tumor cell growth. **AVM0703**: Mobilized immune cells destroyed >99% tumor cells after a single dose



Tumor is killed (brown region) by AVM0703's mobilized immune cell attack.



Tumor Capsule Volume: 203.25mm³ ; L 7.67 mm ; W 7.28 mm; **0.086 gm**



AVM0703 could reduce chemo cycles while maintaining efficacy against lymphoma, thus reducing toxicities



AVM0703 (HED 18.1 mg/kg DP) plus one dose CyFlu (chemotherapy) delays A20 mouse lymphoma growth as well as 2 cycles of CHOP

CHOP tumor volumes are from Bascuas et al., 2016.; CHOP chemotherapy includes cyclophosphamide, doxorubicin hydrochloride (hydroxydaunorubicin), vincristine sulfate (Oncovin), and prednisone/steroid.

Two doses of

cyclophosphamide/ fludarabine (Cy/Flu) on day 11 and day 14 (Cy HED 13.5 mg/kg and Flu 0.8 mg/kg) significantly delayed A20 tumor growth in all mice beyond 60 days after A20 inoculation.

AVM0703 can replace the first Cy/Flu dose on day 11 and significantly delay A20 tumor growth in all mice beyond 60 days after A20 inoculation.

AVM0703 mobilizes highly active immune cells that are rapidly effective against aggressive and established tumor model

of complete responses out of total tested shown in pie chart for each treatment

Data from MI Bioresearch. Presented at the AACR Annual Meeting, 2019, Mar 31- Apr 03 – Atlanta GA Abstract #3719 Anti-PD-L1 AVM0703 (i.e., Tecentrig & Bavencio)]()% 9% 10/52 1/10

Placebo Anti-PD-1* (i.e., Opdivo & Keytruda) % % 0/19 0/10 © 2021 AVM Biotechnology - All rights reserved



A clinical stage company

Demonstrated success with FDA

- Two INDs/clinical studies permitted to proceed in NHL and ARDS:
- Non-Hodgkin's Lymphoma (NHL), AVM0703-001: An Open Label Study of AVM0703 in Patients with Relapsed/Refractory Non-Hodgkin's Lymphoma (R/R-NHL)/Leukemia
- Acute Respiratory Distress Syndrome (ARDS) mediated by either COVID-19 or Influenza, AMV0703-101: A Randomized, Double-Blind, Placebo-Controlled, Study Evaluating AVM0703 in Patients with ARDS
- Expanded access ("Compassionate Use") program – FDA approvals for single-patient INDs

Focus on NHL

- Eight Major Oncology Medical Centers
- On-going enrollment, 1 of 9 protocols enrolling in CRO managed portfolio of 69 (post COVID)
- FDA approved protocol revisions to accelerate enrollment

Cancer trials enrolling

This clinical trial design was developed in conjunction with the FDA according to their Guideline3s, resulting in a trial of shorter duration that sets the stage for accelerated approval of AVM0703.



AVM0703-001: Relapsed/Refractory Non-Hodgkin's Lymphoma (NHL) Patients

DOSE ESCALATION

Bridging to Existing Safety Data

- Reported safety data enabling faster dose escalation.
- Efficacy data collected in dose-escalation is combined with Phase II/III data.
- Sites open and recruiting in the US.
- 28-day durable partial response in 3 of 8 enrolled patients, with 3 additional medical status improvements.
- Enrollment completion expected Q4-2021.

PIVOTAL EFFICACY TRIAL

Expansion Cohort Design

- Five small trials within a trial.
- "Buckets" of about 20 patients per NHL subtype will be enrolled.
- Statistical significance for 28-day survival is endpoint.
- Each "bucket" will be evaluated for efficacy and label expansion on a rolling basis.

Expanded access, compassionate use.

GOAL

To make investigational medical products, such as AVM0703, available as early as possible to patients without therapeutic options.



AVM assists the treating physician to make a request of the FDA for permission to use AVM0703, usually in 24-36 hours.

Compassionate Use Case Study:

No-option Prostate Cancer

Patient has received 10 AVM0703 repeat infusions of increasing dose levels at ~28-day intervals. Each infusion has been well-tolerated. Low-grade minor and self-limiting side effects have been reported (nothing higher than grade 2). The disease is not progressing to date. Patient reports he feels great.

Infusion Date	AVM0703 Dose Level	Total Dose (Approx)	
8/19/20			
9/16/20	6 mg/kg	FFO ma	
10/14/20	0 mg/ kg	550 mg	
11/18/20			
12/22/20	o ma /ka	820 mg	
1/25/21	9 mg/ kg	030 Mg	
2/23/21			
4/10/21	18 ma/ka	1655 mg	
5/10/21	to mg/ kg	1022 119	
6/7/21			

Proposed NHL subtype #1: Acute Lymphocytic Leukemia (ALL)

Median Overall survival is 4.5 months

US FDA "success" is 28-day survival

Assumed pricing \$75,000-\$100,000 per course of therapy Longer term, AVM plans on first line therapy, possibly in combination with chemo





Initial indication(s) in refractory patients yields a \$2.2B-\$3B US and 2x global market

How does AVM think about competition?





AVM-NKT has the potential for broad application across several therapeutic areas (TA) and across several diseases within each TA

Disease competitive landscape will be considered as part of each evolving strategy Companies developing cellbased gamma/delta NKTcells are competitors



The next immunotherapy evolution: Gamma Delta+ T cells

COMPANY	TECH	PIPELINE	STATUS	LAST FUNDING	NOTES
Adaptate (Gamma Delta Spin out)	Antibodies	4 unique antibodies	Preclinical (3 assets in Oncology)	\$18m Series A2 April 2021	Using serum-based T cells only?
Adicet Biotherapeutics	CAR ,TCR, mAB	4 Molecules	IND	Public, \$427m Cap (5/28/21)	IND FOR NHL
American Gene Technologies	G/D is one of 4 platforms- Viral delivered	Unkown	Preclinical		
AVM Biotechnology	Drug induced endogenous GD+ cells	Oncology Autoimmunity	Open clinical study		
Expression Therapeutics	Several platforms	7 assets, 3 are G/D	IND enabling		2 Assets TGT lymphoma and leukemia
Gamma Delta Therapeutics	Allogenic G/D+ cells	4 assets	Ph 1	Corp. at least >\$100m	"Blood" cancers
IMCheck Therapeutics	2 areas of focus G9D2 T cells	3 assets, 2 are G/D T cells	Ph 1	\$53m Series B 12/2019	Ph1/lia in cancers with PD-1
IN8bio	G/D T cells	4 assets	Ph 1 Glioblastoma	Public, \$40 m July 2021	Concurrent delivery with chemotherapy
Kite/Gadeta	Engineered AB T cells w/ GD TCR's		Preclinical		
Kiromic Biopharma	Allogenic chimeric G/D T cell	Oncology solid tumors	IND	Public, \$40m July 2021	
Lava Therapeutics/Janssen	Bispecific antibodies	4 assets	Phase 1	May 2020 undisclosed financing	
Phospohgam	Allogenic cell expansion	None			
Wugen	AB T cell converted to GD	2 assets	Phase 1	\$172 m July 2021	Manipulated Alpha Delta T cell

AVM0703 is manufactured by a global contract development and manufacturing organization (CDMO)

AVM0703 is an innovative proprietary large volume, high concentration formulation of dexamethasone.

SCALABLE PROCESS

7hr Formula can be manufactured in 7 hours

4wk

Release of the drug can be as fast as 4 weeks



Ambient storage at least 2-year shelf-life

DoE STUDY

Formulation selected from Design of Experiments Study

e

GMP BATCH

Shelf life of at least 24-months at ambient conditions

PATENT FILED

Composition of Matter patent filed for novel AVM0703 formulation

6

2ND GMP BATCH

First of commercial sized batches produced

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AVM has a substantial worldwide patent portfolio

PATENTS

#101	Preconditioning before Cell Therapy – Granted in US, Europe, Canada, Australia, China & Japan
#102	Induced Pluripotent Stem Cell (IPS) – Granted in US, Australia, New Zealand, Japan, Mexico & Russia. Pending in Europe & China
#103	Pre-conditioning before CarT Therapy – Pending in major jurisdictions
#104	Immune therapy for cancer, infectious disease, autoimmune disorders - Pending in US, Europe & Japan, but International PCT application allows for major jurisdictions as of April/May 2021
#105	Formulation - Pending in major jurisdictions including US, Europe, Japan & China
#106	Novel Immune Cells Induced/Mobilized - Pending International PCT allows entrance into all major jurisdictions August/September 2021
#107	ICAM-3/COVID19 – Pending International PCT allows entrance into major jurisdictions October/November 2021
#108	AVM0703 Receptor – Pending international PCT allows entrance into major jurisdictions December 2022/January 2023
#109	Lymphocyte Population and Methods for Producing Same

Protection to 2040

AVM Biotechnology - Pipeline



Path to commercialization







ADVANTAGES

A single dose of AVM0703 mobilizes novel gamma delta + NKT cells, which are highly active against tumor cells within hours of administration Highly de-risked pathway to liquidity and launch

Excellent position in Cell therapy market High-value pipeline potential

Broad patent protection



For more information, please schedule a virtual meeting or contact:

Joe Luminiello (847) 910.9056 jlumin@avmbiotech.com

Thank You