



Attacks Alzheimer's Disease and
Neurodegeneration by Improving the
Information Highway of the Nerve Cell

Axonal Transport

Symbol: **ANVS** (NYSE American)

January 2021



FORWARD-LOOKING STATEMENTS

Statements in this presentation contain “forward-looking statements” that are subject to substantial risks and uncertainties. Forward-looking statements contained in this presentation may be identified by the use of words such as “anticipate,” “expect,” “believe,” “will,” “may,” “should,” “estimate,” “project,” “outlook,” “forecast” or other similar words, and include, without limitation, statements regarding Annovis Bio, Inc.’s expectations regarding projected timelines of clinical trials, and expectations regarding current or future clinical trials. Forward-looking statements are based on Annovis Bio, Inc.’s current expectations and are subject to inherent uncertainties, risks and assumptions that are difficult to predict. Further, certain forward-looking statements are based on assumptions as to future events that may not prove to be accurate, including the timing of clinical trials. These and other risks and uncertainties are described more fully in the section titled “Risk Factors” in the Annual Report on Form 10-K for the year ended December 31, 2019 filed with the Securities and Exchange Commission. Forward-looking statements contained in this presentation are made as of this date, and Annovis Bio, Inc. undertakes no duty to update such information except as required under applicable law.

HIGHLIGHTS

A novel approach to treat neurodegeneration is desperately needed

- **Annovis is developing drugs** for Alzheimer's (AD) and Parkinson's disease (PD), including the orphan indication Alzheimer's in Down Syndrome (AD-DS)
- **Lead compound, ANVS401**, is the only drug to improve axonal transport, the information highway of the nerve cell, by attacking multiple neurotoxic proteins
- **Two phase 2a clinical trials:**
 - AD trial run by Alzheimer's Disease Cooperative Study (ADCS)
 - AD and PD trial
- **Successful completion of phase 2a clinical trials** will validate our approach and allow start of two phase 3 studies



THE STATE OF NEURODEGENERATIVE DISEASES

- 5.8 million people in the US and 44 million people worldwide are estimated to suffer from AD
- PD affects an estimated one million people in the U.S. and as many as 10 million globally
- Total costs of care for people with Alzheimer's and other dementias could top \$1.1 trillion in 2050
- From 1998 to 2018 there were over 500 failed attempts at developing Alzheimer's drugs, primarily focused on amyloid plaque
- The sector needs to rethink dementia, develop new approaches and create new drugs

CHANGE IN CAUSES OF DEATH FROM 2000 TO 2018

- Breast Cancer - 13%
- Colon Cancer - 21%
- Heart Disease - 21%
- Stroke - 24%
- HIV - 67%
- Parkinson's + 84%
- Alzheimer's + 112%

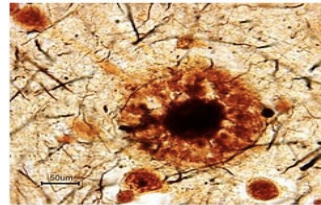
ANNOVIS

ANNOVIS' DRUG ATTACKS MULTIPLE NEUROTOXIC PROTEINS

Chronic and acute brain insults lead to high levels of **neurotoxic proteins**,
to **inflammation** and neurodegeneration

Amyloid β

AD / PD- A β Targeting Compounds



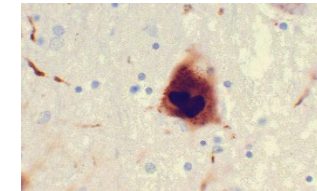
Tau

Tauopathies - AD - Tau Targeting Compounds

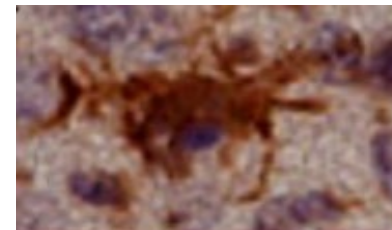


α Synuclein

PD / AD - α SYN Targeting Compounds



Activated Microglia = High Inflammation



Attacking one neurotoxic protein results in minimal effect

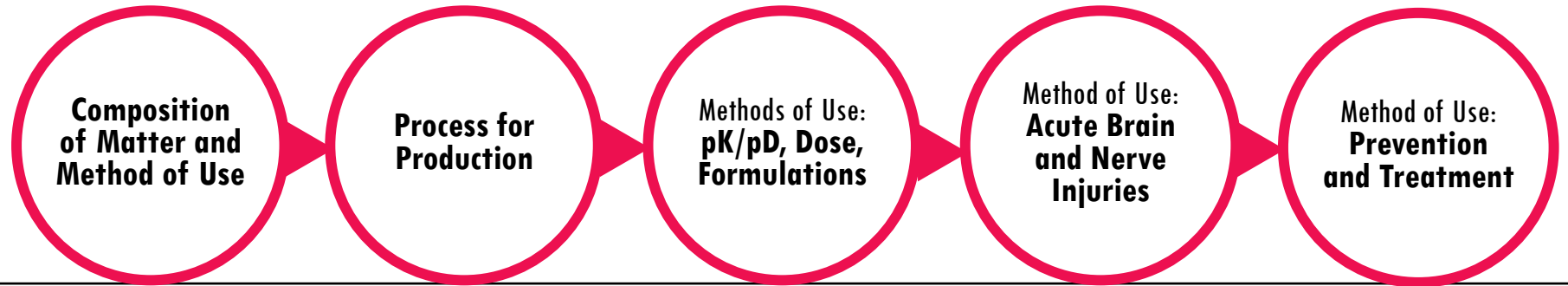
ANVS401 is the only drug to attack multiple neurotoxic proteins simultaneously

PIPELINE

Therapy	Diseases/Conditions	PRE-CLINICAL	IND	PHASE I	PHASE II	PHASE III
<div>ANVS401</div> <div>Oral drug for chronic indications</div>	AD					
	PD					
	AD-DS					
	FTD					
	CTE					
<div>ANVS405</div> <div>Injectable drug for acute traumatic events</div>	TBI					
	Stroke					
<div>ANVS301</div> <div>Oral drug for advanced AD and dementia</div>	Advanced AD					

CORPORATE PATENT ESTATE

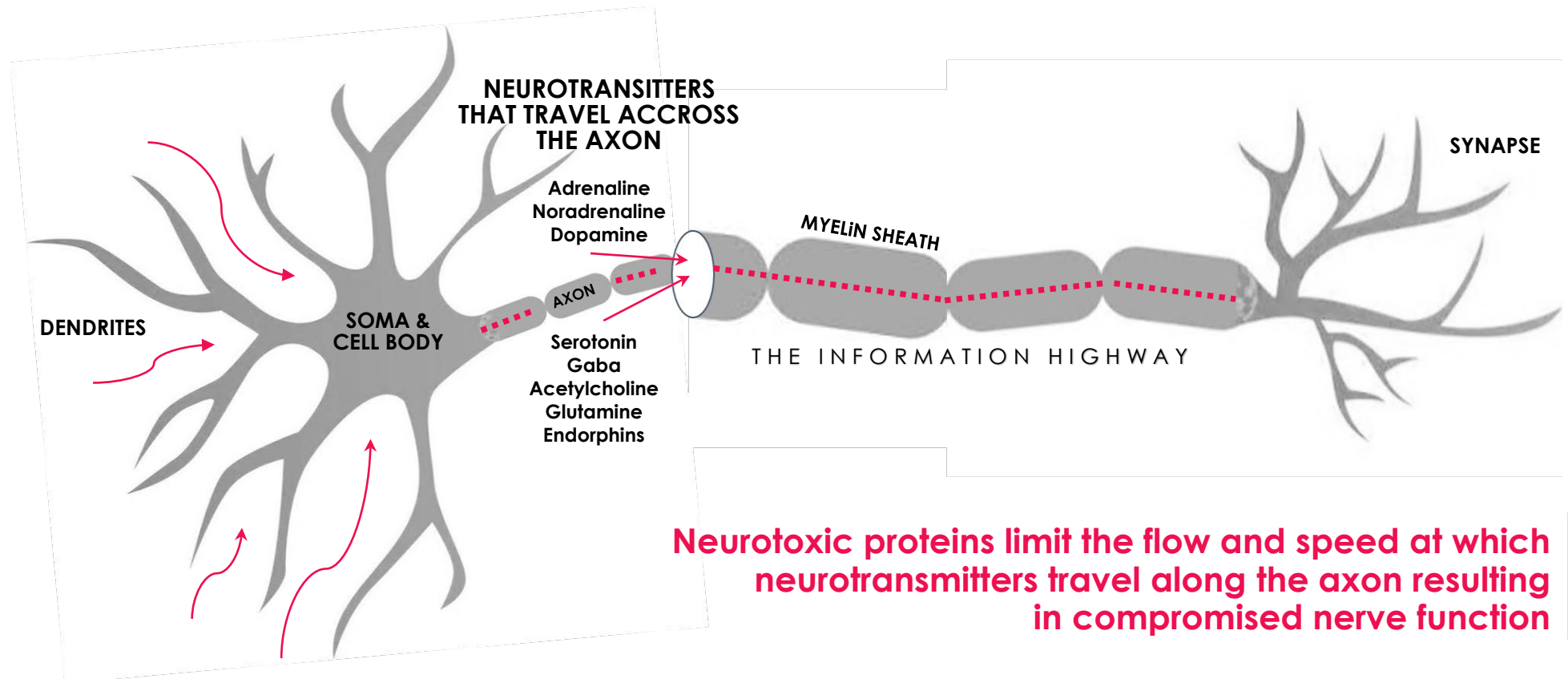
Multi-layer strategy



Patent/Application	Subject Matter	Status US	Expiry US
Provisional	ANVS401 to treat viral and bacterial infections of the brain, including Covid19	Pending	2041
PCT	ANVS401 and 405 – Mechanism of Action for prevention and treatment of diseases	Pending	2038
PCT	ANVS405 - Acute brain and nerve injuries	Pending	2036
PCT	ANVS401 - pK/pD, low doses, formulations Neurodegenerative Diseases	US 10,383,851; 07-2019 EP 2683242; 03-2020	2031
In-licensed patents	Composition of matter, manufacturing, method for treating AD and DS	Granted	2022-25

HOW NERVE CELLS WORK

In healthy nerve cells little packages containing neurotransmitters or nerve growth factors travel unimpaired from the cell body through the axon to the synapse.



Neurotoxic proteins limit the flow and speed at which neurotransmitters travel along the axon resulting in compromised nerve function



NEUROTOXIC PROTEINS IMPAIR AXONAL TRANSPORT AND **CAUSE A TOXIC CASCADE**

HIGH LEVELS OF NEUROTOXIC PROTEINS

IMPAIRED AXONAL TRANSPORT

SLOWER SYNAPTIC TRANSMISSION

INFLAMMATION

DEATH OF NERVE CELLS

LOSS OF COGNITIVE AND
MOTOR FUNCTION

ANVS401 LOWERS LEVELS OF NEUROTOXIC PROTEINS

IMPROVED AXONAL TRANSPORT

INCREASED SYNAPTIC TRANSMISSION

NO INFLAMMATION

HEALTHY NERVE CELLS

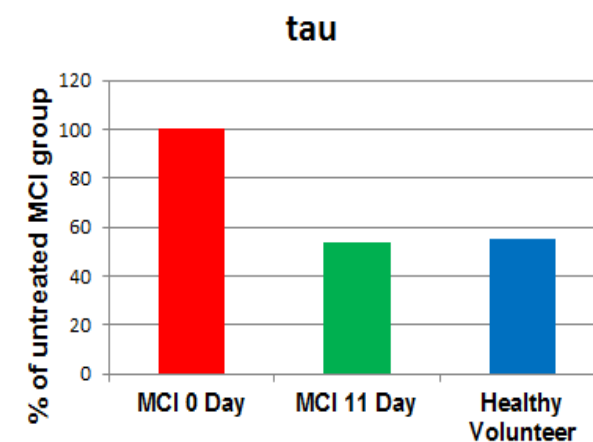
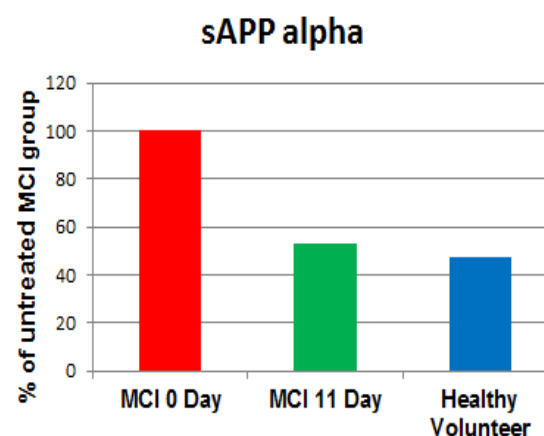
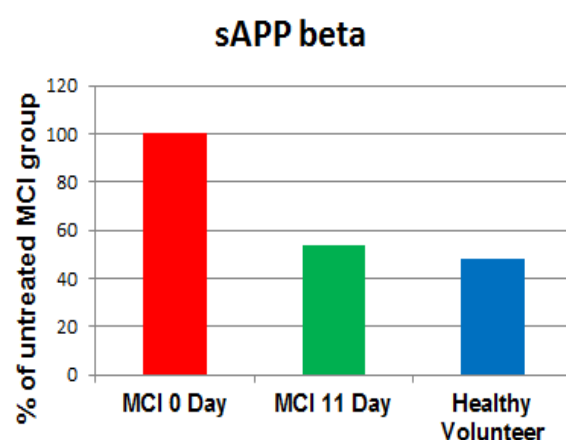
IMPROVED COGNITIVE AND
MOTOR FUNCTION

ANVS401 IMPROVES AXONAL TRANSPORT
AND **IMPEDES THE TOXIC CASCADE**



RESULTS IN HUMANS

ANVS401 Lowers Neurotoxic Proteins in Cerebrospinal Fluid (CSF) of Mild Cognitive Impaired (MCI) Patients



Maccacchini et al: JNNP 2012; 83: 894-902

- In this proof-of-concept study, ANVS401 lowers the levels of APP/A β , tau/p-tau and α SYN back to the levels seen in healthy volunteers
- It lowers the levels of the three neurotoxic proteins causing AD and PD

NEURODEGENERATION IS AN AXONAL TRANSPORT DISEASE

“Axonal transport disruption is linked to human neurological conditions.” - Nature Review, September 2019

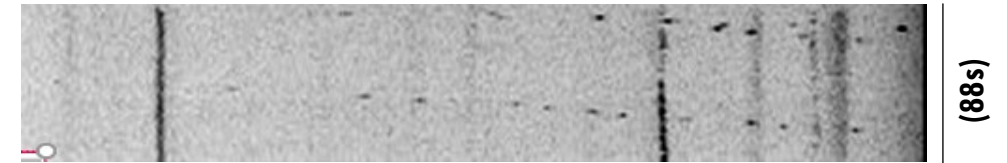
Axonal transport is responsible for:

- Neurotransmitters GABA (anxiety), ACh (cognition), dopamine (movement), serotonin (mood)
- Neurotrophic factors NGF, BDNF
- All communication within and between nerve cells

— Retrograde (0.5 frame/sec) —→

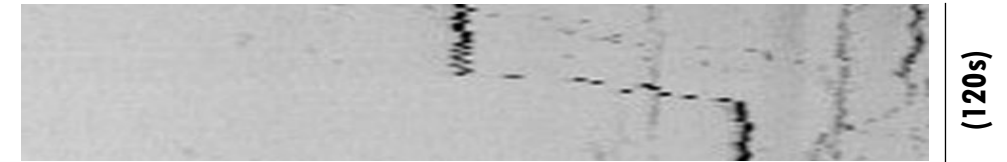
Normal Transport

The *Normal Flow and Speed* of vesicles carrying BDNF across the axon.



Abnormal Transport

Shows the *Blockage and Slowing* of BDNF across the axon. Black areas demonstrate where transport is slowed due to high levels of neurotoxic proteins.



TREATED WITH ANVS₄₀₁

The *Flow and Speed* of axonal transport is improved.



APP, Ab42, C99 — Mobley, UCSD; aSYN — Isacson, Harvard; Lee, U.Penn;
Tau — U. Muenich & Zuerich; Htt — Mobley, UCSD; TDP43 — Taylor, Northwestern

ANVS401 LOWERS INFLAMMATORY MARKERS

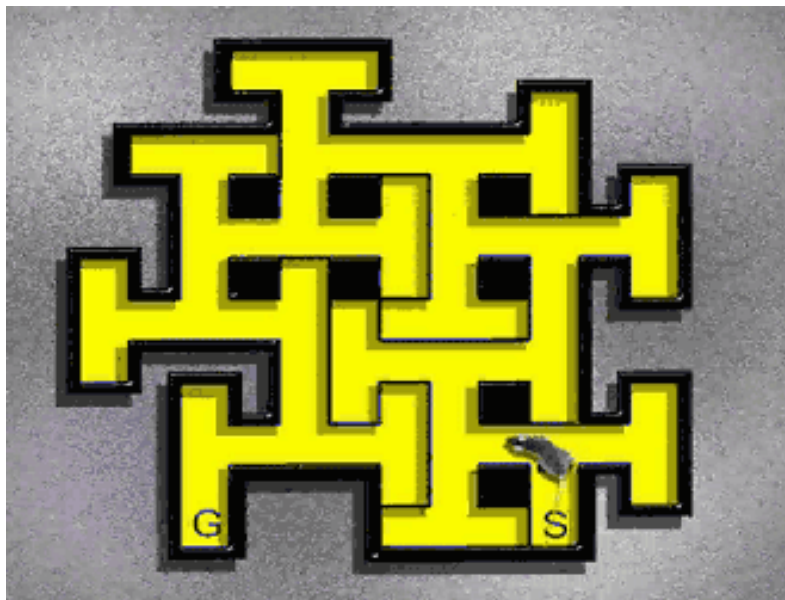
**CSF Inflammatory Markers Significantly
Decrease After 10 Days of Oral ANVS401 in
MCI Patients**

Inflammatory Protein	CSF % of Baseline	p-Value
Complement C3	-86.9%	0.0007
MCP-1	-87.5%	0.0007
YKL40	-72.7%	0.0113
sCD14	-26.1%	0.1159
Factor FH*	23.7%	0.4988

* Control Factor

RESULTS IN ANIMALS

Multiple animal studies showed that ANVS401 improved the affected function



Function

Memory and learning

Movement

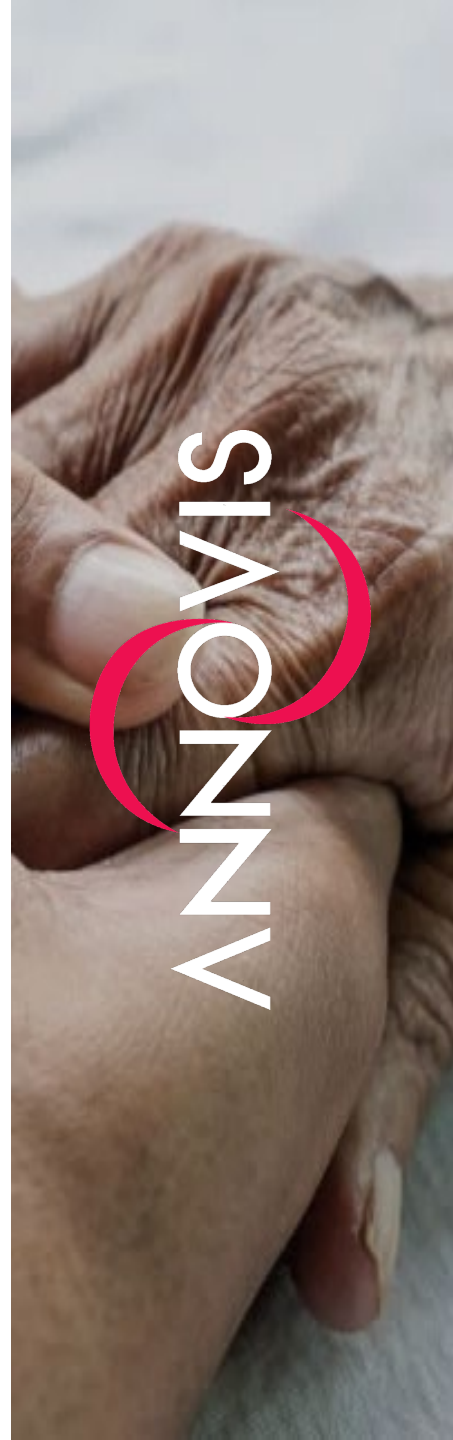
Eyesight

Animal Model

AD mice, DS mice, stroke mice, TBI rats

PD mice, FTD mice

Acute glaucoma rats



TWO PHASE 2 CLINICAL TRIALS

	AD Trial	AD / PD Trial
CRO	ADCS	Parexel
Therapeutic Area	Early AD	Early to Moderate AD and PD
Phase	2	2
Patients	24	28 + 40
Sites	6	Up to 15
Country	United States	
Design	Double-Blind, Placebo-Controlled, Biomarker Study	
Endpoints	Reversal of Toxic Cascade	

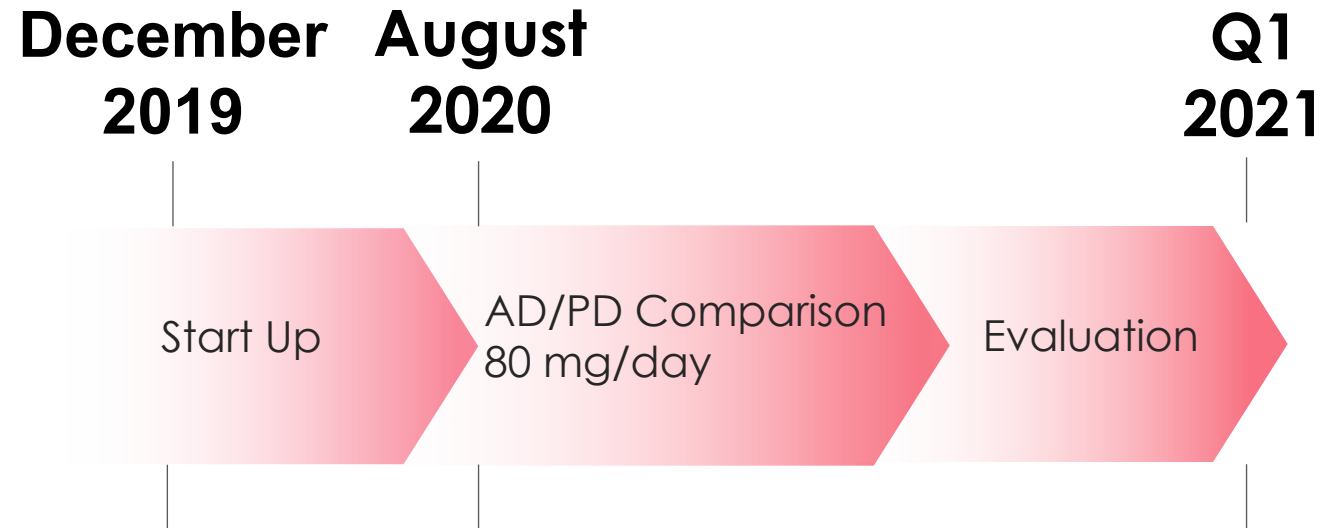
PHASE 2 CLINICAL TRIAL IN AD AND PD TO MEASURE REVERSAL OF THE TOXIC CASCADE AND IMPROVEMENT IN BRAIN FUNCTION

ENDPOINTS

- TARGET:** DECREASE IN NEUROTOXIC PROTEINS
- PATHWAY:** INCREASE IN NEUROTRANSMITTERS
- LOWERING OF INFLAMMATORY PROTEINS
- LOWERING OF NEURODEGENERATION
MARKERS
- EFFICACY:** COGNITION AND MOTOR FUNCTION

TIMELINE OF PHASE 2 CLINICAL TRIAL IN AD and PD

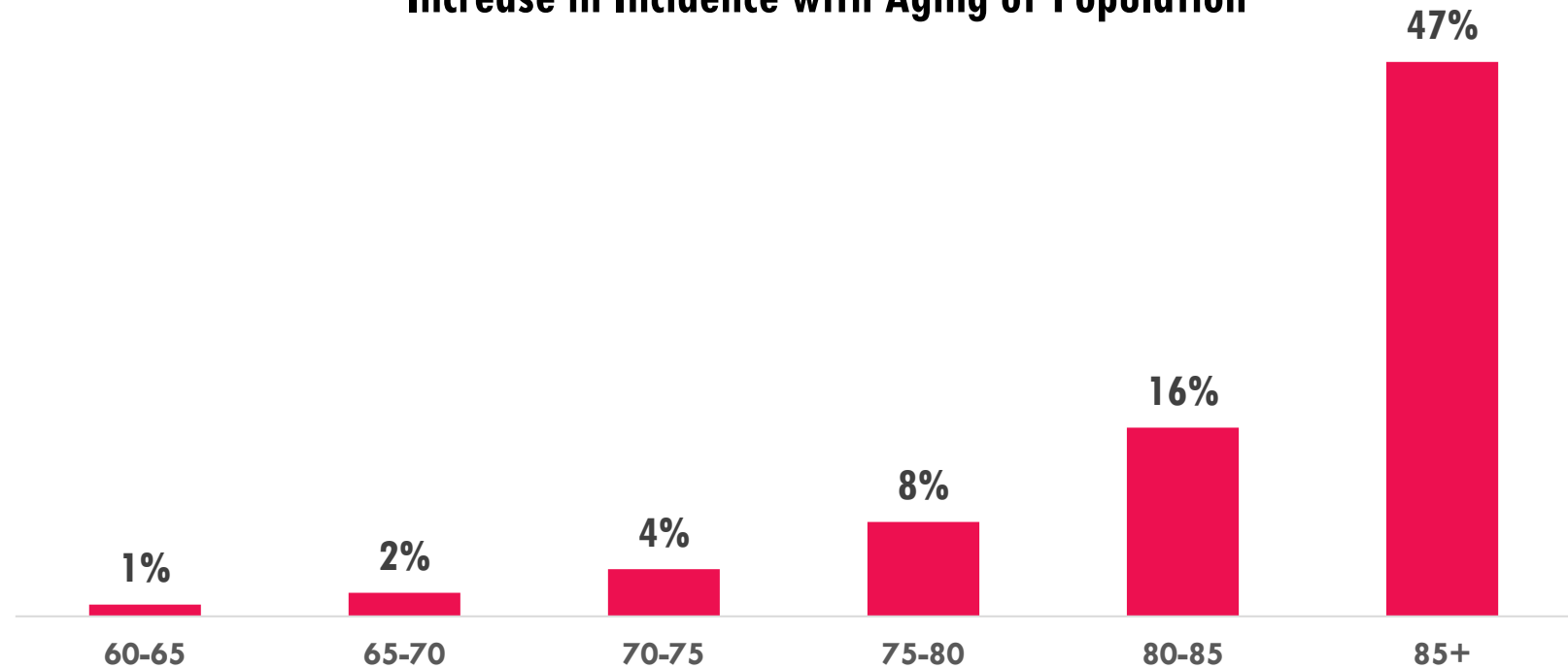
Preliminary data to be available **beginning in 1Q2021**



Dose response is planned to follow the AD/PD comparison and is projected to be completed in summer 2021

MARKET PROJECTIONS

Increase in Incidence with Aging of Population



Source: Alzheimer's Association 2014; Incidence of AD in Relation to Age

Annual sales potential for US and worldwide are over \$100 billion dollars

FINANCIAL HIGHLIGHTS

- Completed IPO in January 2020
- Cash balance provides runway to end of 2021
- NIH grants funding ADCS Phase 2a trial in AD and chronic toxicology study
- >40% insider ownership
- Analyst coverage from ThinkEquity and Maxim Group with Buy ratings and price targets of \$20 and \$12, respectively

KEY DATA

Ticker	NYSEAmerican: ANVS
Recent Price	\$7.54
52-Week Range	\$2.42-\$10.61
Market Cap	\$52.0M
Shares Outstanding	6.9M
Float	4.3M
Cash (mrq)	\$8.8M
LT Debt (mrq)	\$0.0M

Share price and market cap as of December 31, 2020

CHIEF EXECUTIVES AND CHIEF ADVISORS



Maria L. Maccecchini, PhD Founder, President & CEO

Founded Annovis in May 2008 to develop better therapeutics for Alzheimer's, Parkinson's and other neurodegenerative diseases. Was partner and director of two angel groups, Robin Hood Ventures and MidAtlantic Angel Group; Founder and CEO of Symphony Pharmaceuticals/Annovis a biotech company that sold in 2001 to Transgenomic; General Manager of Bachem Bioscience, the US subsidiary of Bachem AG, Switzerland and Head Molecular Biology Mallinckrodt; Dr. Maccecchini did one postdoc at Caltech and one at the Roche Institute of Immunology, her PhD in biochemistry is from the Biocenter of Basel with a two-year visiting fellowship at The Rockefeller University.



Jeffrey McGroarty, CPA, MBA, Chief Financial Officer

Jeff is a financial executive with experience in investor relations, working with analysts, creditors and financial institutions, planning and analysis, capital allocation, SEC communications and reporting, accounting, acquisitions and turnarounds. He is experienced in effectively managing complex projects, building professional relations and developing staff. Mr. McGroarty was previously employed as CFO of Safeguard Scientifics, Interim Controller at Cephalon, Inc., Vice President-Financial Planning and Analysis of Exide Technologies, Inc., and Senior Manager at PWC. Jeff's MBA is from the Wharton School of Business.



Jeffrey Cummings, MD, Chief Medical Advisor

Dr. Cummings completed Neurology residency and a Fellowship in Behavioral Neurology at Boston University, Boston, Massachusetts. US training was followed by a Research Fellowship in Neuropathology and Neuropsychiatry at the National Hospital for Nervous Diseases, Queen Square, London, England. Dr. Cummings was formerly Professor of Neurology and Psychiatry at UCLA, director of the Mary S. Easton Center for Alzheimer's Disease Research at UCLA, director of the Deane F. Johnson Center for Neurotherapeutics at UCLA and director of the Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas, Cleveland and Florida. He is past president of the Behavioral Neurology Society and of the American Neuropsychiatric Association. Dr. Cummings has authored or edited 30 books and published nearly 600 peer-reviewed papers.



William Mobley, MD, PhD Chief Scientific Advisor

Distinguished Professor, Department of Neurosciences Florence Riford Chair for Alzheimer Research and Associate Dean for Neurosciences Initiatives at UC San Diego. He is a member of the National Academy of Medicine. His research focuses on the neurobiology of neurotrophic factor actions/signaling and on the hypothesis that malfunction of these mechanisms contribute to neuronal dysfunction in developmental and age-related disorders of the neurosystem.

SCIENTIFIC ADVISORY BOARD

Sidney Strickland, PhD, Chairman



Vice President and Dean for Educational Affairs and Research Professor, Patricia and John Rosenwald Laboratory of Neurobiology and Genetics at Rockefeller University. Dr. Strickland's laboratory investigates how dysfunction of the circulatory system contributes to Alzheimer's and other neurodegenerative disorders. He will serve as the Chairman of Annovis Bio's SAB.

Jeffrey Cummings, MD



Dr. Cummings completed Neurology residency and a Fellowship in Behavioral Neurology at Boston University, Massachusetts. US training was followed by a Research Fellowship in Neuropathology and Neuropsychiatry at the National Hospital for Nervous Diseases, London, England. Dr. Cummings was formerly Professor of Neurology and Psychiatry, Director of Alzheimer's Disease Research and Director of the Center for Neurotherapeutics at UCLA. He was Director of the Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas, Cleveland and Florida.

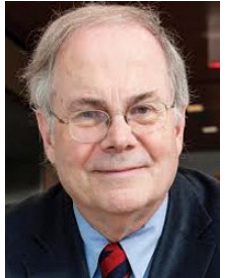
William Mobley, MD, PhD



Dr. Mobley is Distinguished Professor, Department of Neurosciences Florence Riford Chair for Alzheimer Research and Associate Dean for Neurosciences Initiatives at UC San Diego. He is a member of the National Academy of Medicine. His research focuses on the neurobiology of neurotrophic factor actions/signaling and on the hypothesis that malfunction of these mechanisms contribute to neuronal dysfunction in developmental and age-related disorders of the neurosystem.

Gregory Petsko, PhD

He is a member of the National Academy of Sciences, the National Academy of Medicine, the American Academy of Arts and Sciences and the American Philosophical Society. His research interests are directed towards understanding the biochemical bases of neurological diseases like Alzheimer's, Parkinson's, and ALS discovering treatments (especially by using structure-based drug design), that could therapeutically affect those biochemical targets, and seeing any resulting drug candidates tested in humans. He has also made key contributions to the field of protein crystallography.



Rudolph E. Tanzi, PhD

Dr. Tanzi has published over 500 research papers and has received the highest awards in his field, including the Metropolitan Life Foundation Award, Potamkin Prize, Ronald Reagan Award, Silver Innovator Award, and many others. He was named to TIME magazine's list of TIME100 Most Influential People in the World (2015), and received the Smithsonian American Ingenuity Award, the top national award for invention and innovation. He co-authored the popular trade books "Decoding Darkness", New York Times bestseller, "Super Brain", and international bestseller "Super Genes".



BOARD OF DIRECTORS



Michael B. Hoffman
Chairman

Mr. Hoffman is the Founder and Managing Partner of Stone Capital Partners, a private equity firm focused on power and renewable energy. He was Partner of Riverstone, senior managing director at the Blackstone Group and managing director at Smith Barney, Harris Upham & Co. He serves as Chairman of Onconova, Annovis Bio, Curative and is on the Board of Rockefeller University.



Claudine E. Bruck, PhD

Pharmaceutical executive and scientist with strong entrepreneurial drive. Exhibited successes in building a therapeutic research unit de novo and leading discovery and clinical development of biological (vaccines, biopharmaceuticals) and small molecule medicines as well as an ophthalmic drug portfolio. With creativity and a strong results-focus, she is energized to challenge and lead teams. Extensive Pharmaceutical industry experience spans drug discovery and development across several therapeutic.

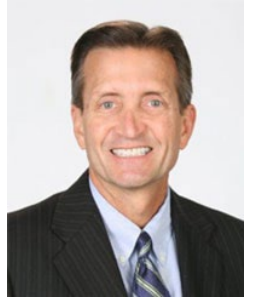


Maria L. Maccocchi, PhD
Executive Board Member

Founded Annovis in May 2008 to develop better therapeutics for Alzheimer's, Parkinson's and other neurodegenerative diseases. Founder and CEO of Symphony Pharmaceuticals/Annovis focused on protecting brain cells after stroke. It sold in 2001 to Transgenomic.

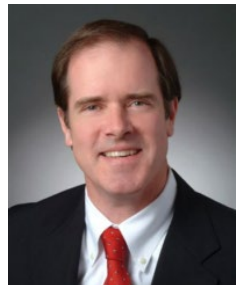
Mark White

Mark is a biopharmaceutical executive with global marketing, business development and sales experience. Currently, Mark is an independent consultant and a member of Robin Hood Ventures, a Philadelphia based angel investor group. Previously, Mark held senior level roles at Pfizer in marketing and commercial development, where he led the successful global launches of Inspira, Revatio, Lyrica and Xeljanz. In his last position, he was Vice President Worldwide Marketing, with global responsibility for new product development and in-line marketing for Pfizer's Inflammation Therapeutic Area.



Robert M. Whelan, Jr.

Mr. Whelan brings over 35 years of corporate finance and investment banking experience to Annovis' Board of Directors. Since 2001, Mr. Whelan has been President of Whelan & Company, LLC, providing financial consulting, valuation and strategic services to public and private companies in the technology, healthcare and alternative energy industries. From 1999 to 2001, Mr. Whelan served as Vice Chairman, Prudential Volpe Technology Group. Prior to then, Mr. Whelan was a senior executive with Volpe Brown Whelan, a private technology and healthcare investment banking, brokerage and asset management firm.



The Annovis logo is positioned vertically on the left side of the slide. It features the word "ANNOVIS" in white, uppercase letters, with a red swoosh element that curves around the letters "O" and "V".

INVESTMENT SUMMARY

A novel approach to treat neurodegeneration is desperately needed

- The markets for AD and PD drugs are in the multibillions of dollars and growing
- Annovis has a novel approach to stop the course of AD and PD
- ANVS401 improves axonal transport and recovers the affected function
- The successful completion of our Phase 2 clinical trials will provide validation of our approach in two diseases and allow us to move to Phase 3 trials



Improves **THE FLOW** of Axonal Transport
in Alzheimer's Disease and
Neurodegeneration

ANVS401 **ANVS**405 **ANVS**301

Symbol: **ANVS** (NYSE American)

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