



Creating Alzheimer's Solutions

OTCBB: APNS

SAFE HARBOR STATEMENT

This presentation contains certain forward-looking statements based on expectations of the management of Applied NeuroSolutions, Inc. at the time of the presentation. There are certain key factors that could cause future results to differ from those anticipated by the company's management and Board of Directors, including but not limited to the risk that Applied NeuroSolutions, Inc. does not develop any of its proposed products.

The forward-looking statements included in this presentation are made only as of the date of this presentation and APNS undertakes no obligation to update the forward-looking statements to reflect subsequent events or circumstances.

Applied NeuroSolutions Investment Highlights

- 'Pure play' in the Alzheimer's market
- Significant market opportunity with huge unmet need
- Diversified development portfolio
 - Therapeutics - Collaboration with Eli Lilly and Company to drive value
 - Diagnostics - CSF and Serum programs have partnership potential
 - Research model - Htau transgenic mouse
- Credible and unique scientific foundation
 - Exclusive rights to discoveries of leading AD researcher- *Dr. Peter Davies laboratory at Albert Einstein College of Medicine*
 - Well published in numerous scientific peer-reviewed journals
- Tau based approach gaining scientific focus & credibility
 - *NEJM* and various other scientific publications are legitimizing tau based approach to therapeutics
 - NINCDS-ADRDA Alzheimer's disease experts present revised diagnostic AD criteria that includes APNS' P-Tau 231 based biomarker
- Strong business and science leadership

Strong Business and Science Leadership Join Forces

■ Ellen R. Hoffing, Chairman (as of 12/07), President & CEO (as of 9/06)

- Over 20 years experience in healthcare, pharmaceutical and device companies
- Senior Management at Searle (Monsanto) and Baxter Healthcare

■ Peter Davies, Ph.D., Founding Scientist

- Pioneer in the discovery of biochemical abnormalities in the brains of AD patients, focused on AD research since 1974
- Judith and Burton P. Resnick Professor of Alzheimer's Disease Research, Albert Einstein College of Medicine of Yeshiva University, Alzheimer's Association Lifetime Achievement Award (7/08)

■ Alan Heller, Director as of September, 2006

- Operating Partner at Water Street Healthcare Partners (Chicago-based private equity) and Director on two public Boards (Savient and Northfield Labs)

■ David Tiemeier Ph.D., Director as of October, 2007

- Deputy Director of UChicagoTech, the University of Chicago's office of Technology and Intellectual Property
- Academic researcher, science and business healthcare executive

■ Ed Ogunro Ph.D. Director as of November, 2008

- Retired Sr. VP, R&D and Medical Affairs and CSO Hospira, Inc.
- Transitioned from Corporate VP, Abbott Labs.

■ Gary Parks, Director as of November, 2008

- CFO, Immtech Pharmaceuticals, Inc. a publicly traded, global infectious disease

APNS Collaboration with Eli Lilly and Company Makes Key Progress

Advancing development of tau based AD therapeutics

- **All key assets and proprietary tools have been transferred to support ongoing work by Lilly, Dr. Davies and APNS**
- **Lilly is providing substantial resources to ensure the success of the Collaboration**
- **Good progress on proprietary APNS target, the first tau related target to be advanced by the Collaboration**
 - High throughput *in vitro* and cell based screens established
 - Correlation established between *in vitro* and cell based potency of active compounds
 - Multiple compounds selected from the hits successfully cross the blood brain barrier
 - Key in-vivo models have been established
- **Additional tau based targets screened and assessed with validation studies underway directed toward several tau related targets**

Attractive Deal Terms Provide APNS Cash and Significant Future Upside

Key terms of Lilly Collaboration

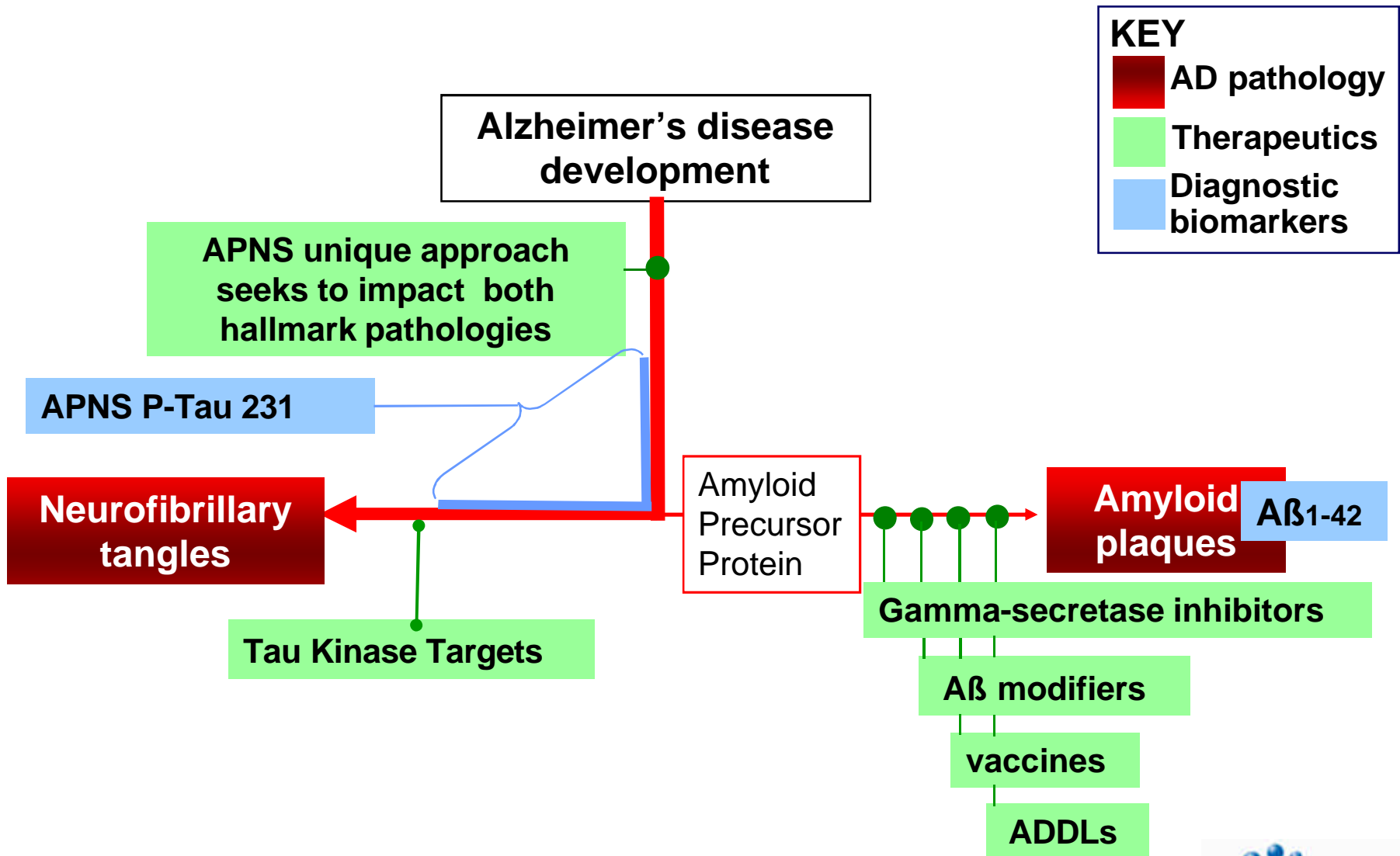
- Upfront cash of \$2.0 MM including equity of \$0.5 MM in 2006
- Annual research and development support for 3 years or longer as mutually agreed
- Lilly funds vast majority of all preclinical R&D and fully finances clinical testing, manufacturing, sales and marketing of developed compounds
- Significant upside potential
 - Milestone payments upon achievement of defined critical development events
 - Royalties, with no dollar cap, for all therapies brought to market as developed by the collaboration
- Lilly Collaboration milestones
 - The APNS proprietary target successfully passed first internal milestone in 2Q07 and second internal milestone in 2Q08
 - APNS first paid milestone targeted for review/achievement in early 2009
 - Total dollar potential from milestone payments earned through the course of drug development is uncapped
 - Up to **\$20 MM** for advancing the **APNS proprietary target** to a therapeutic compound
 - Up to **\$10 MM per target** for advancing any other selected tau based targets. There is no limit to the number of these targets that can be developed into a therapeutic compound in the collaboration.

A Growing Recognition of the Role of Tau

Tau is a key factor for AD diagnostic and therapeutic solutions

- **Diagnostics: International working group (NINCDS-ADRDA) publishes first proposed new guidelines for AD diagnostics in 10 years**
 - CSF biomarkers for detecting the key molecular pathological factors of AD *in vitro* are available and can be assessed reliably
 - APNS CSF P-Tau 231 diagnostic test was identified as reliable biomarker for AD
- **Therapeutics: Importance of tau as a player for new disease modifying AD therapeutics is increasing**
 - *New England Journal of Medicine* and various other scientific articles offer view of importance of role of tau in the etiology of the disease
 - Relative to abnormal behavior and memory loss
 - Strong suggestion that tau is implicated in changes associated with the AD disease process

APNS Tau Based Approach Focuses on Early Intervention: Before AD Tangles and Plaques

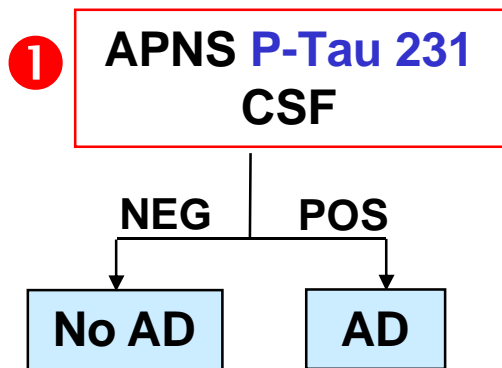


APNS Diagnostic Approach is Linked Directly to a Hallmark Pathology of AD

- **APNS' diagnostic development focus is on the protein tau and the abnormal changes occurring in early AD processes**
- **Dr. Peter Davies, APNS founding scientist, has demonstrated the phosphorylation of tau-231 to be a very early event in AD**
- **APNS CSF diagnostic measures P-Tau 231 in AD and Mild Cognitive Impaired (MCI) patients**
 - ***Neurobiology of Aging* (October 2007) publishes study which shows APNS' P-Tau 231 biomarker to be the strongest predictor of decline from MCI to AD**
- **APNS serum diagnostic assays and tools in development build on our existing tools and knowledge of the protein tau**

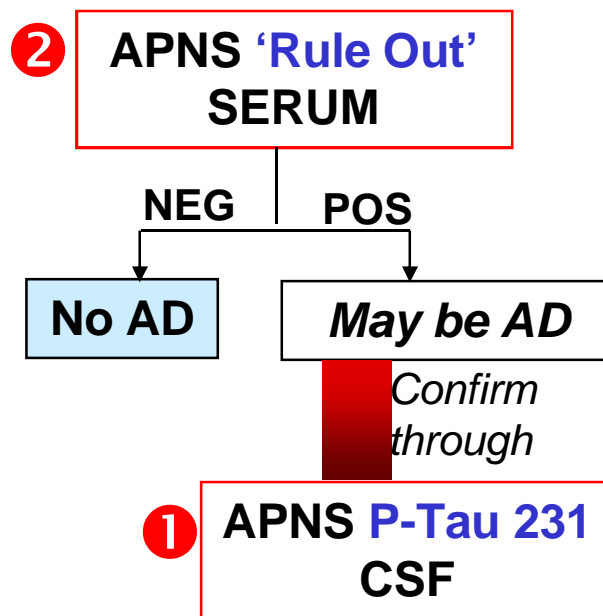
APNS' Diagnostic Development Pipeline

CSF Assay



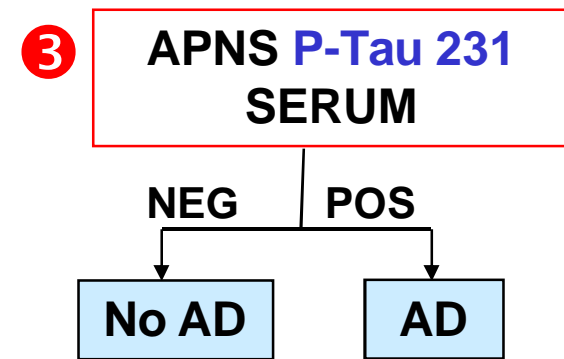
- Over 2000 (blinded) samples tested in APNS lab
- 21 peer reviewed publications
- 85-95% sensitivity & specificity
- Improvements underway for ease of use in CLIA labs

'Rule -Out' Serum Screening Assay



- Key tools identified 1Q 08
- Additional tools in development
- Upcoming Target Feasibility milestone by early 09

"Next Generation" Replace both with one Serum Assay



- Key tools identified in 2Q 08
- Additional tools in development
- Upcoming Target Feasibility by early 09

The Growing Unmet Needs in Alzheimer's Attracts Big Players

■ Alzheimer's: the emerging epidemic

- Over 5 MM cases in the US and over 26 MM worldwide. With the aging of the population, estimates could exceed 100 MM worldwide by 2050.
- 1 in 8 adults >age 65 will develop AD, 1 in 2 adults >age 85
- AD is the 3rd most costly disease in the US after heart disease and cancer
- Cost of care in the US is estimated to exceed \$148 B annually

■ Earlier detection can make a difference

- AD is a progressive disorder, damage begins before symptoms appear
- Current data suggests that in 60-80% of cases individuals with Mild Cognitive Impairment (MCI) ultimately progress to AD

■ FDA-approved drugs can temporarily slow loss of function in some patients

- 5 approved, 4 on market, all targeting similar mechanisms of action

■ “Big Pharma” and Biotech companies are investing significantly in Alzheimer's Rx and Dx R&D

- Lilly, Wyeth, Elan, AstraZeneca, Takeda, Pfizer, Merck, GSK

The Alzheimer's Market Value is a Blockbuster Opportunity

- ***Therapeutics*** - US sales of AD therapeutics exceeded \$3 B in 2007 and are expected to exceed \$6 B by 2010.
- ***Diagnostics*** - US market for AD diagnostics is beginning to emerge with multiple new approaches
 - Currently no FDA approved tests
 - New proposed criteria for AD diagnosis include use of CSF biomarkers, specifically our P-Tau 231 test
 - CLIA-level tests for certain AD biomarkers are available at company-owned Reference Labs
 - Estimated annual value for an *FDA approved AD diagnostic* in the US market could achieve \$160 MM (using CSF) to \$1 B (using serum)¹

¹ *Datamonitor 2005*

New AD Therapeutics Are Needed

Currently marketed drugs offer temporary improvement in symptoms but do not impact the disease progression

Company	Drug	Type	Indication	Launch	'06 US Sales
<i>FDA Approved/ Currently Marketed for AD</i>					
Pfizer/Eisai	Aricept (donepezil)	Acetylcholinesterase inhibitor	Mild to Moderate AD	1997	\$1.40 B
Novartis	Exelon (rivastigmine)			2000	\$0.22 B
Ortho/McNeil	Razadyne (galantamine)			2001	\$0.25 B
Forest	Namenda (memantine)	NMDA antagonist	Moderate to Severe AD	2004	\$0.70 B

Key Catalysts

1) Eli Lilly and Company therapeutic development collaboration

- The APNS proprietary target passed first internal milestone in 2Q07 and second internal milestone in 2Q08
- APNS first paid milestone targeted for review/achievement in early 2009
- Realize other future milestones and royalties

2) Optimize the value of the APNS diagnostic pipeline

- Focus on execution of Diagnostic Pipeline development
- Pursue a licensee/partner for development and commercialization of the Diagnostic assets
- Offer current CSF assay as cost effective tool for use in AD clinical trials
- Expand data and publications in support of use of APNS' P-Tau 231 biomarker in MCI population

3) Maintain and develop new IP

- Patent granted on the tau related Saitohin gene and proteins it produces
- Patent applications filed relating to work in Therapeutics (filed 2005), and Diagnostics (filed 2002)

4) Pursue other business development strategic initiatives

- William Blair engaged as strategic advisor

5) Augment key people resources and expertise

6) Expand investor awareness

APNS - Uniquely Positioned to Maximize Value in the Alzheimer's Market

*Advancing **Tau** Based AD Solutions Through Therapeutics, Diagnostics & Novel Research Tool*

2006+ LILLY Collaboration	2006+ Htau Mouse	2007+ Pipeline develop/partner
tau Therapeutics	tau R&D Model	tau Diagnostics
Dr. Peter Davies' tau based science		
EXPERIENCED EXECUTIVE & BOD LEADERSHIP		



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