

**Allon Therapeutics Inc.**



**Corporate Overview**  
**April 2010**



## Forward Looking Statements

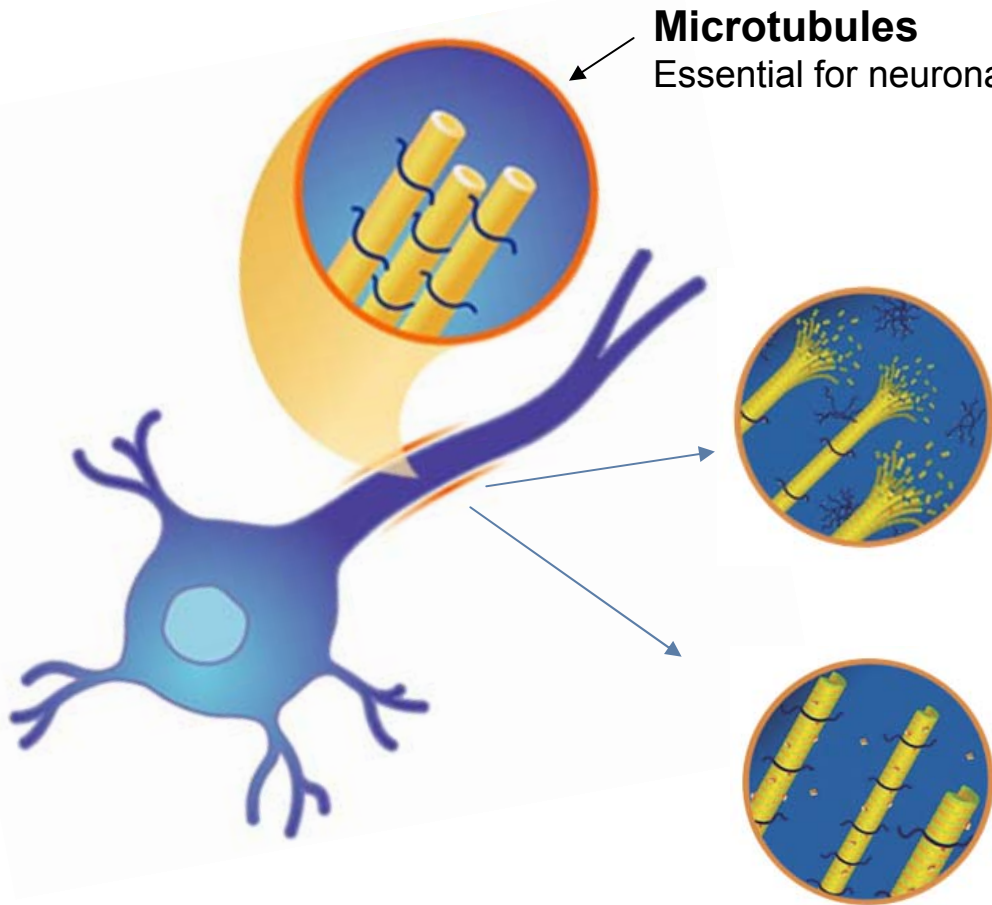
*Statements contained herein, other than those which are strictly statements of historical fact may include forward-looking information. Such statements will typically contain words such as "believes", "may", "plans", "will", "estimate", "continue", "anticipates", "intends", "expects", and similar expressions. While forward-looking statements represent management's outlook based on assumptions that management believes are reasonable, forward-looking statements by their nature are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by them. Such factors include, among others, the inherent uncertainty involved in scientific research and drug development, Allon's early stage of development, lack of product revenues, its additional capital requirements, the risks associated with successful completion of clinical trials and the long lead-times and high costs associated with obtaining regulatory approval to market any product which Allon may eventually develop. Other risk factors include the limited protections afforded by intellectual property rights, rapid technology and product obsolescence in a highly competitive environment and Allon's dependence on collaborative partners and contract research organizations. These factors can be reviewed in Allon's public filings at [www.SEDAR.com](http://www.SEDAR.com) and should be considered carefully. Readers are cautioned not to place undue reliance on such forward-looking statements.*

## Allon Overview

- Portfolio of neuroprotective peptides
- Disease-modifying mechanism of action
- Demonstrated human POC in 2 P2 studies
- Statistically significant imaging biomarker data
- Proceeding into pivotal dementia study in large orphan market
- AD/schizophrenia opportunities with partner
- Financial resources to execute through clinical milestones
- Management team with proven track record
- Strong IP estate



# Fundamental Mechanism of Action



## Neurodegeneration

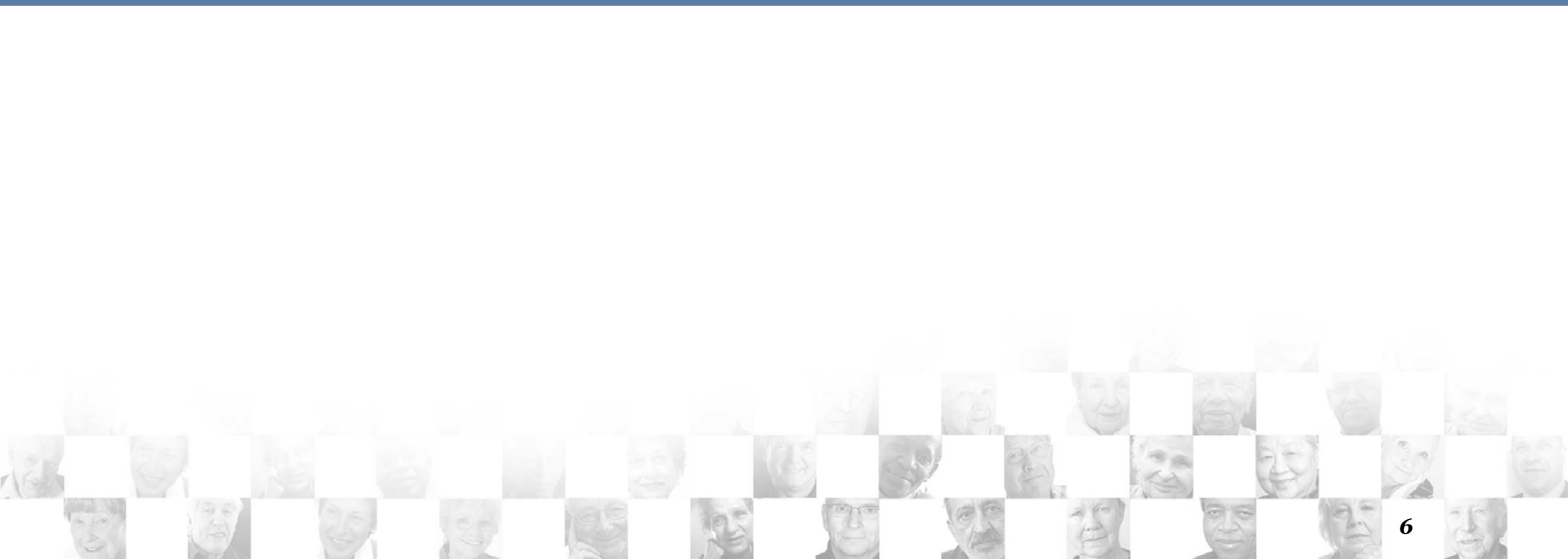
- Destabilization and breakdown of microtubules
- Tau hyperphosphorylation
- Progressive loss of function
- Leads to cell death

## Neuroprotection

- Allon's drugs cross the human blood brain barrier
- Reduces Tau hyperphosphorylation
- Stabilize and repair microtubules
- Restore neuronal structure and function

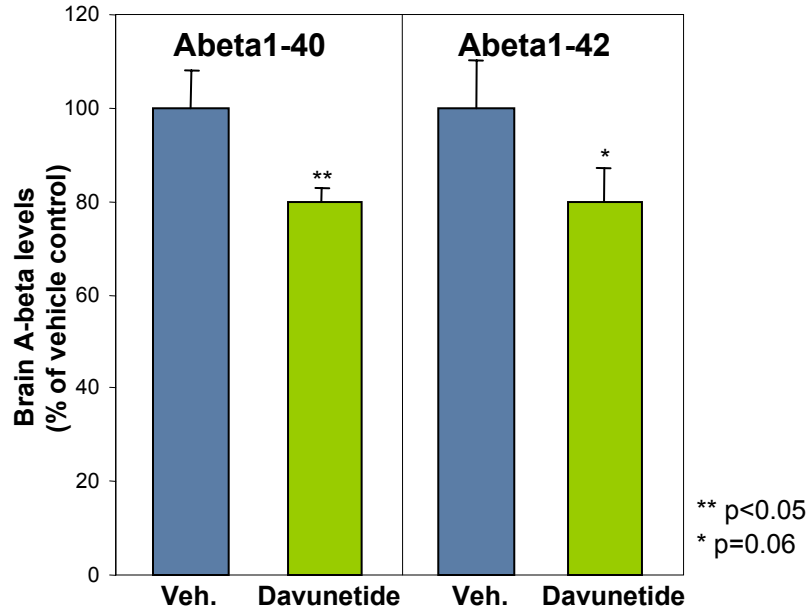


# ADNP Platform Davunetide Human Proof of Concept

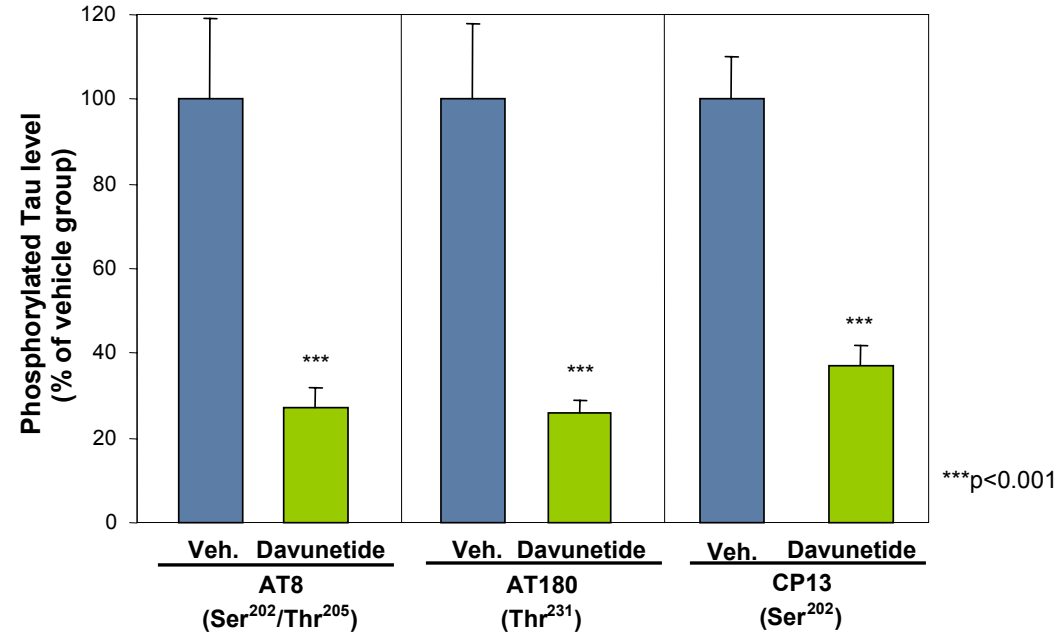


# Davunetide Impacts Relevant Neuropathology

## Amyloid Beta



## TAU Phosphorylation



- Significant reduction in levels of beta-amyloid and phosphorylated tau
- Significant behavioral outcome in animals

# Clinical Strategy

## P/C & Phase 1

- Safety/PK Studies
- Safety to 60 mg/day
- CSF penetration
- Brain via systemic distribution
- Healthy normal/aged, AD, FTD
- 35 P/C studies in 17 models

## P2a – AD Program

- 144 subjects
- 2 doses (5 mg/QD, 15 mg BID)
- 12 weeks
- Randomized, placebo controlled, double blind
- 17 US sites

## P2a – Schizophrenia

- 63 subjects
- 2 doses (5 mg QD, 15 mg BID)
- 12 weeks
- Randomized, placebo controlled double blind
- 7 US sites

## P2a – Imaging Biomarker

- 18 subjects
- 2 doses (5 mg/QD, 15 mg BID)
- 12 weeks
- Randomized, placebo controlled double blind
- 3 US sites

## P2/3 Study

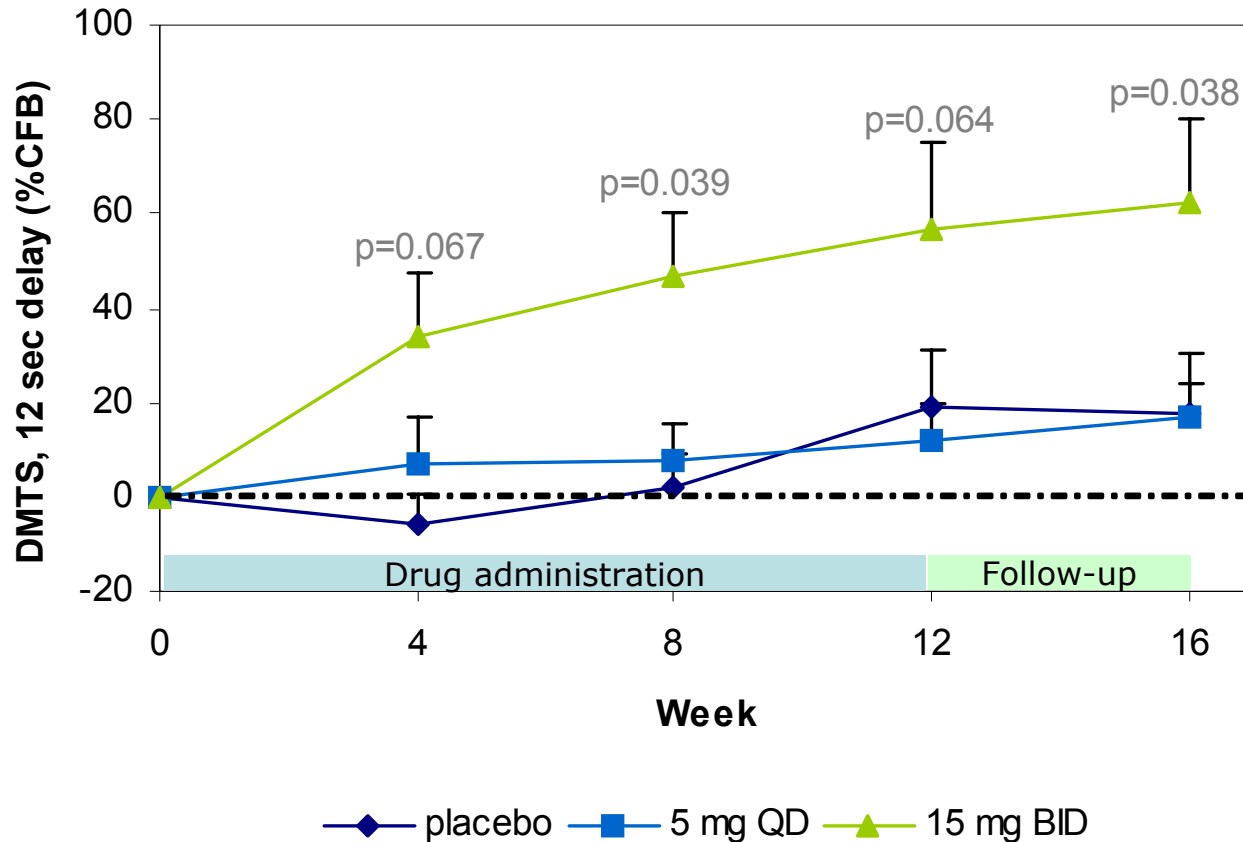
- Progressive Supranuclear Palsy
- Early onset dementia
- Rapid decline
- No effective treatment
- Validated rating scale
- Powered as a pivotal study
- Defining future steps in AD/Schizophrenia
- 2<sup>nd</sup> generation formulation underway for market separation

410 subjects dosed with davunetide

## Davunetide Phase 2 Alzheimer's Program: aMCI

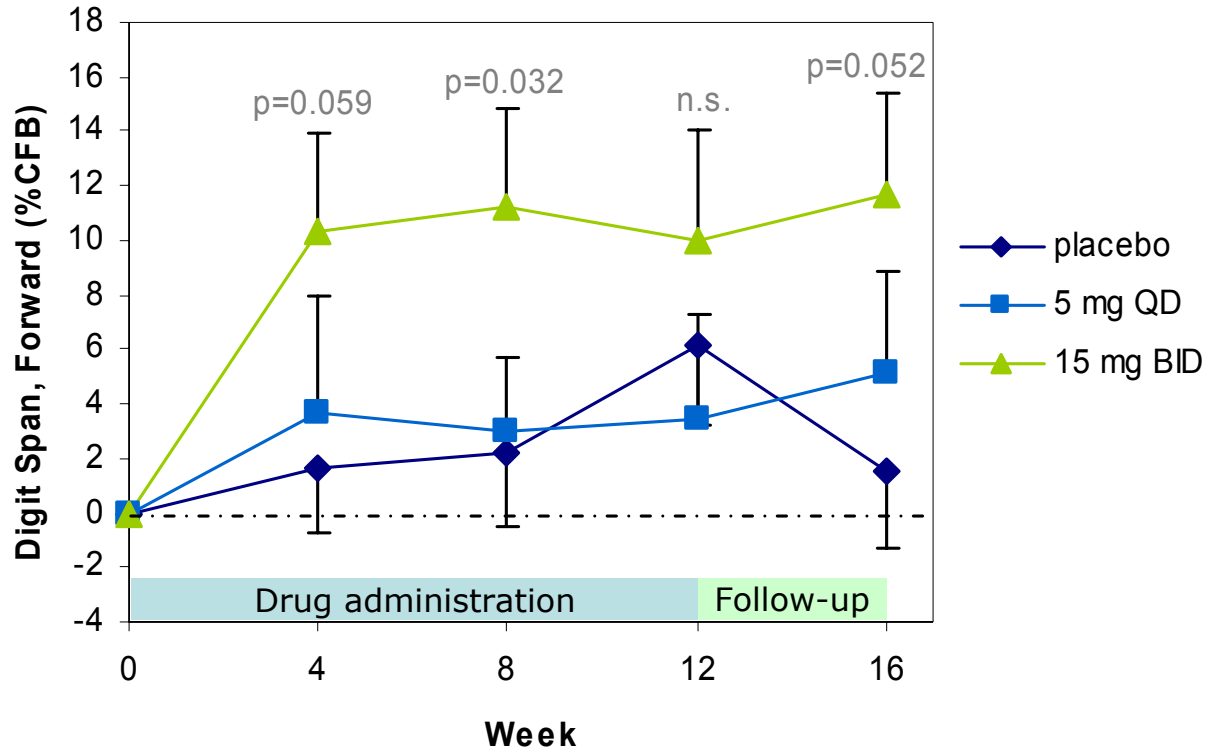
- 144 subjects amnestic MCI
  - Demographics = aMCI patients
- 17 clinical sites in the U.S.
- Randomised, placebo controlled, double blind
- Two doses (5 mg QD; 15 mg BID) x 12 weeks
- Placebo matched to both low and high dose davunetide
- Cognitive assessments at weeks -4, 0, 4, 8, 12, 16
- *All cognitive measurements relevant to AD clinical practice*

# Statistically Significant Improvement on Memory (aMCI)



■ Statistically significant, dose dependant and durable impact seen at 12 second delay when memory is measured

# Statistically Significant Improvement on Memory (aMCI)



- Statistically significant, dose dependant, and durable impact on working memory

## Amnestic MCI Study Summary

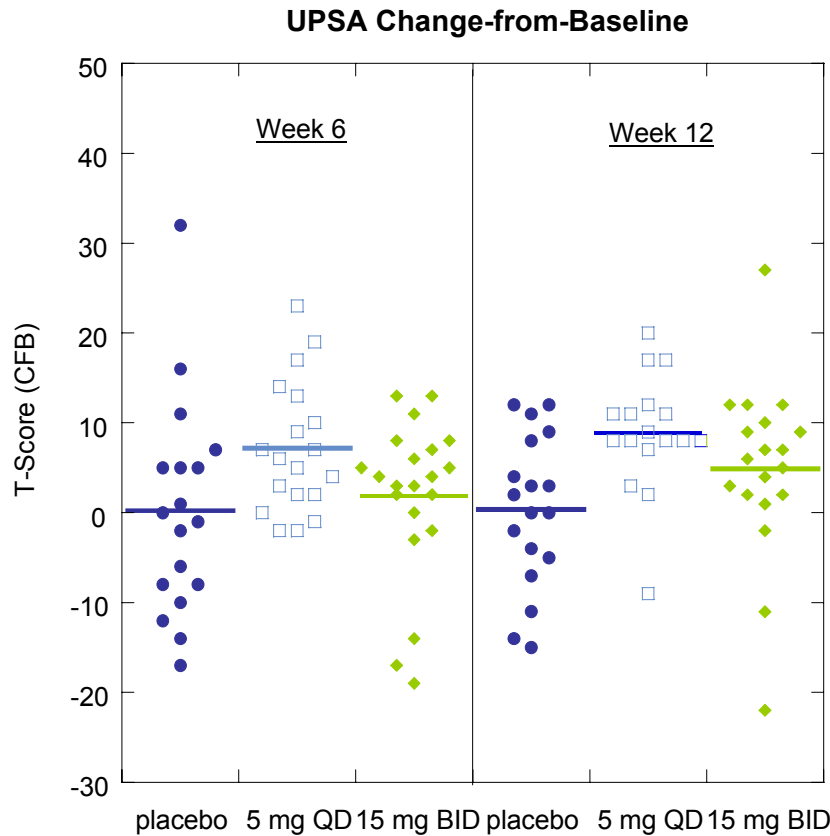
- Statistically significant, dose dependent and durable impact observed when memory domains are challenged
- Drug effect and/or trending observed when the challenge is both memory and executive function (including the primary composite)
- No effect on anxiety
- Drug is safe & well tolerated with modest drug related adverse events
- Clear human proof-of-concept in relevant indication warrants proceeding to P2b in AD & other types of dementia

## Phase 2 Schizophrenia Cognitive Impairment Design

- TURNS / NIMH funded
- 60 patients clinically stable
- 7 US sites
- Randomized, double blind, placebo controlled
- Two doses of 5 mg QD/15 mg BID for 12 weeks
- Placebo matched to both low and high dose davunetide
- Endpoint = MATRICS + UPSA + SCoRS
- 3 imaging biomarkers to evaluate structural changes



# UCSD Performance-Based Skills Assessment



## Mixed Model ANCOVA

### ■ 5 mg vs placebo:

- p=0.023 Week 6; p=0.088 Week 12
- Combined 6 and 12 weeks versus placebo p=0.015

### ■ 15 mg vs placebo:

- p=0.079 Week 6; p=0.387 Week 12

## Conclusion

- Statistically significant treatment effect of davunetide 5 mg QD and combined treatment groups versus placebo
- Davunetide 15 mg BID did not reach significance but not different from 5 mg QD

## Schizophrenia Cognition Study Summary

- Trending on the primary outcome on MATRICS (Measurement and Treatment Research to Improve Cognition in Schizophrenia) composite battery of tests
- Moderate and large treatment effects seen in visual learning and working memory sub-domains
- Statistical significance ( $p=0.015$ ) on functional outcome (UCSD Performance-based Skills Assessment (UPSA)) a recognized co-primary for registration trials
- Safe and well tolerated
- Imaging biomarker data significant and correlate with behavioral outcomes

## Magnetic Resonance Spectroscopy (MRS) in Schizophrenia

### MRS Imaging

- Measures concentrations of important CNS markers

### Pathological Findings

- MRS changes correlate with prefrontal gray matter abnormalities

### Regional Localization

- Dorsolateral Prefrontal Cortex (DLPFC) most often implicated in CIAS

### Drug Effects

- NAA changes induced by antipsychotic drugs

## N-Acetylaspartate (NAA) imaging in Schizophrenia

### Important Biomarkers

- Integrity of neuronal function in DLPFC by NAA correlates with activation of working memory in schizophrenia

### Hypothesis

- Davunetide can increase the metabolic integrity as measured by the NAA/Cr ratio compared to baseline

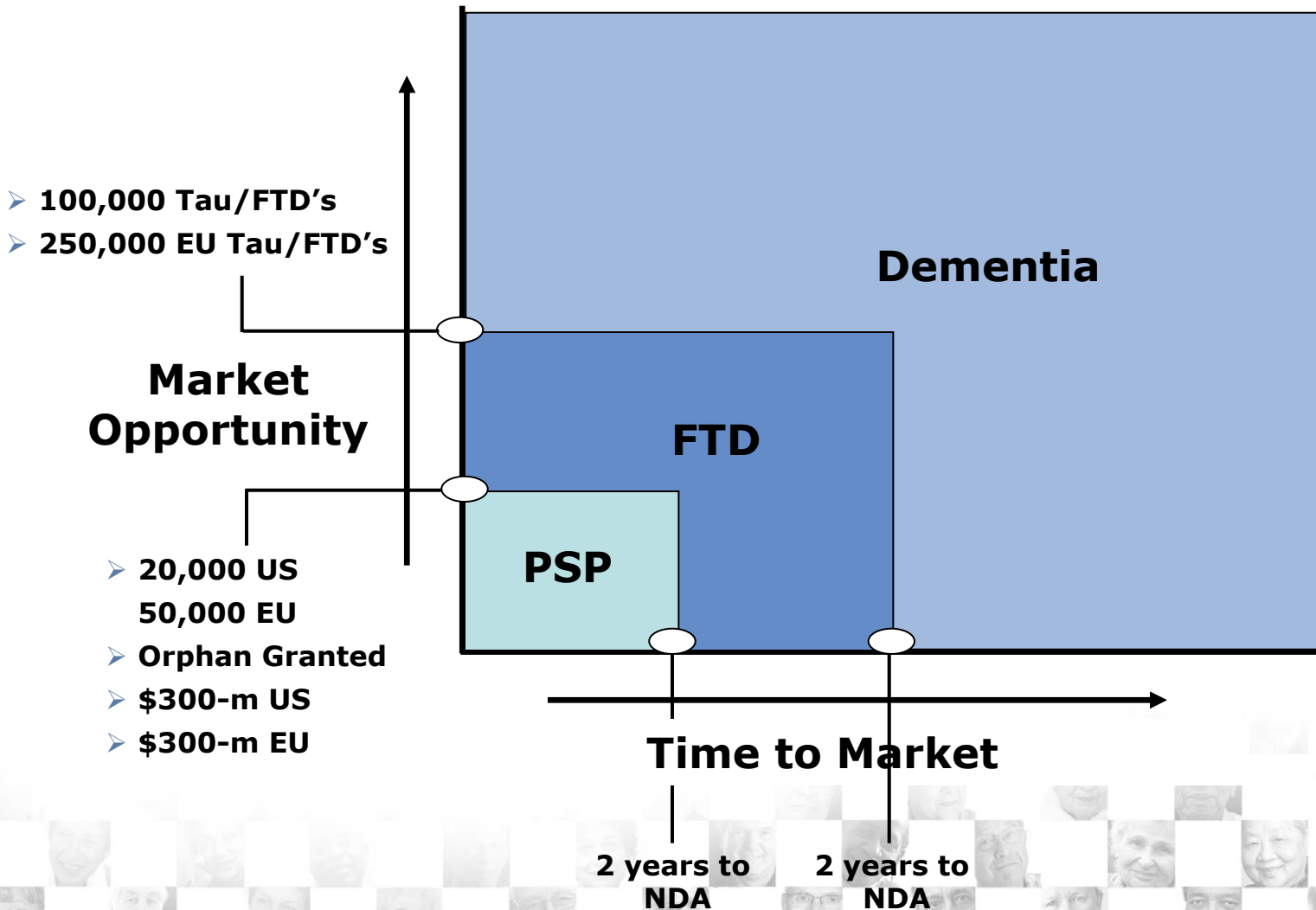
### Result

- Statistically significant ( $p=0.017$ ) increased NAA levels were found in patients treated with davunetide -vs- baseline

### Conclusion

- Davunetide can impact the neuronal health and function of the brain in areas critical to cognitive impairment

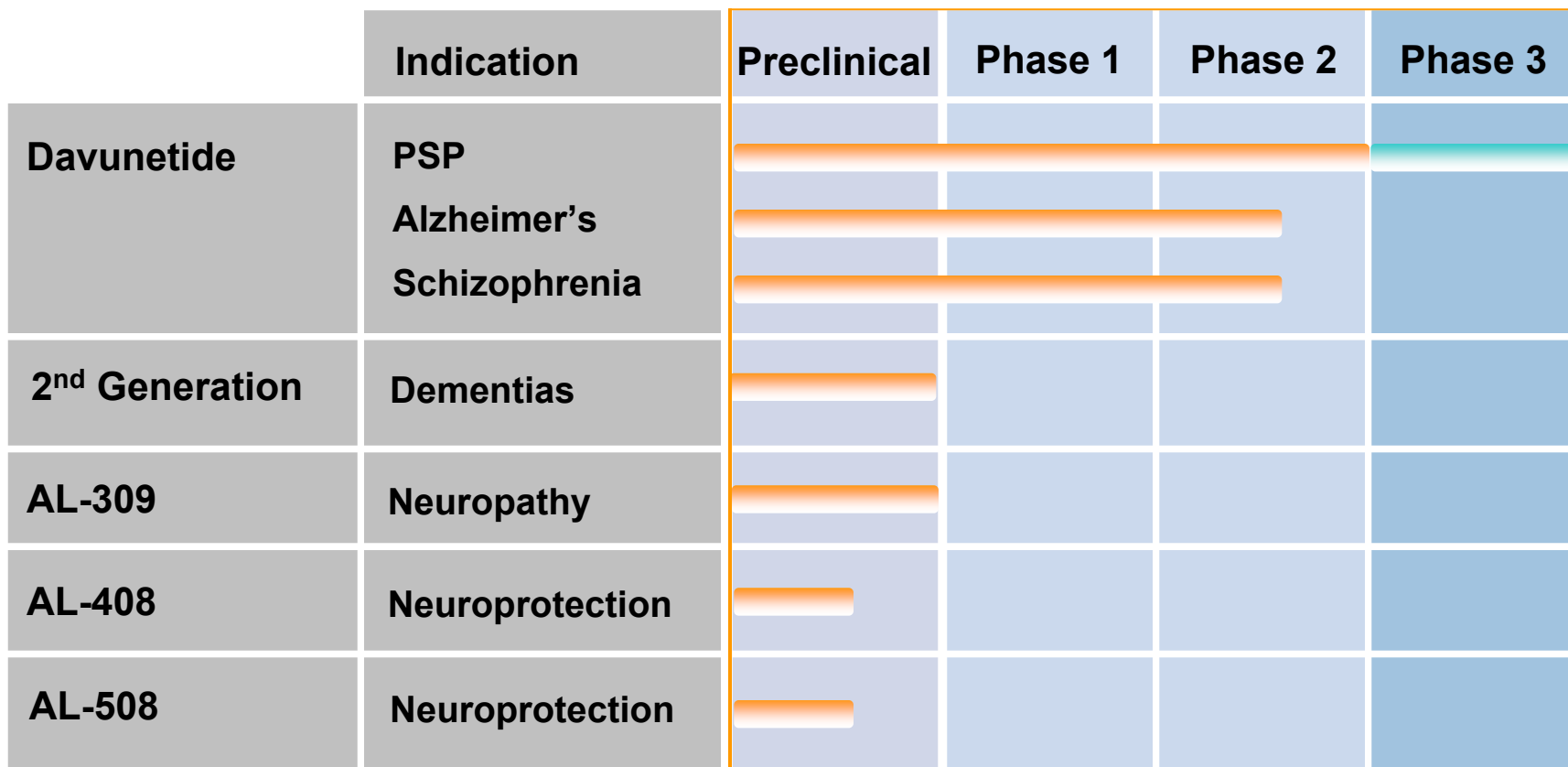
# Davunetide Market Strategy



## Phase 2/3 Progressive Supranuclear Palsy

- Early-onset dementia characterized by tau pathology
- No available treatment
- US Orphan granted (20,000 patients); EU Orphan granted (50,000 patients)
- Fast Track Granted
- Validated rating scale measuring clinically relevant outcomes
- Appears to meet criteria for single study approval
- Phase 2/3 study powered as a pivotal study to start H1 '10
- Significant future potential in other sub-types of frontotemporal dementia

# Balanced Clinical Development Strategy



Completed



Next Steps



## Capital Snapshot

- \$21-mm available for clinical development
  - \$11-mm cash (YE'09)
  - \$10-mm equity line
- '10 burn rate \$750k/month
- Financial resources to execute clinical milestones
- 78-mm shares (85.8-mm fd), no prefs, no debt
- Market cap ~ \$45-mm
- Volume ~ 100 k/day
- Institutional ownership ~ 60%

## Allon Summary

- Phase 2 human proof of concept in AD, cognitive impairment associated schizophrenia and imaging biomarker
- Advance to P2/3 in PSP
- Advance in AD/CIAS to P2b with partner
- First clinical program to impact both amyloid beta and neurofibrillary tangles
- 14 families of 54 issued composition of matter and use patents & 30+ pending
- Broaden the pipeline assets
- Management team with consistent track record of execution and achievement

## Continued Focus on 2010 Execution

- ✓ Completed 60 mg safety study
- ✓ EU/US orphan drug designation granted
- ✓ Significant schizophrenia imaging biomarker data
- ✓ US Fast Track granted
- ✓ Validate P2/3 design with ongoing pilot study
  - Define regulatory guidance
  - Initiate Phase 2/3 clinical trial for PSP
  - Initiate commercial planning
  - Define second generation products
  - Advance pipeline assets



[www.allontherapeutics.com](http://www.allontherapeutics.com)

TSX: NPC

