



# TARGETING ALZHEIMER'S AND OTHER NEURODEGENERATIVE DISEASES WITH NOVEL THERAPEUTICS AND DIAGNOSTICS



# Disclaimer

*This presentation may contain statements that constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are statements other than historical fact and may include statements that address future operating, financial or business performance or AC Immune’s strategies or expectations. In some cases, you can identify these statements by forward-looking words such as “may,” “might,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “projects,” “potential,” “outlook” or “continue,” and other comparable terminology. Forward-looking statements are based on management’s current expectations and beliefs and involve significant risks and uncertainties that could cause actual results, developments and business decisions to differ materially from those contemplated by these statements. These risks and uncertainties include those described under the captions “Item 3. Key Information—Risk Factors” and “Item 5. Operating and Financial Review and Prospects” in AC Immune’s Annual Report on Form 20-F and other filings with the Securities and Exchange Commission. Forward-looking statements speak only as of the date they are made, and AC Immune does not undertake any obligation to update them in light of new information, future developments or otherwise, except as may be required under applicable law. All forward-looking statements are qualified in their entirety by this cautionary statement.*

# About AC Immune

Based at the EPFL campus in Lausanne, Switzerland

Nasdaq listed in September, 2016 with net proceeds of \$70.5m

Ticker symbol: Nasdaq: ACIU

Approximately \$650m market cap, 56.8 million shares outstanding

80 full-time employees



# Vision

*To become a global leader in **precision medicine**<sup>1</sup> of neurodegenerative diseases leveraging dual proprietary technology platforms to develop breakthrough therapies*

## SupraAntigen™

Vaccines and antibodies specific to disease causing conformations



## Morphomer™

Conformation-sensitive small molecules

(1) The goal of precision medicine is to deliver optimally targeted and timed interventions tailored to an individual's molecular drivers of disease.

# Investment highlights

AC Immune: a leader in neurodegenerative diseases

6

Multiple high-profile strategic alliances with leading industry partners

1

Large and growing neurodegenerative disease market driven by significant unmet medical need

2

Proprietary technology platforms (SupraAntigen, Morphomer) as engines for sustained growth

5

Well-positioned financially with CHF 124 m in cash, enough through min Q1 2019. Increasing investment into key areas of neuro-orphan and neuro-inflammation

4

Lead product, crenezumab, in Phase 3 development with compelling Phase 2 data and favorable safety profile

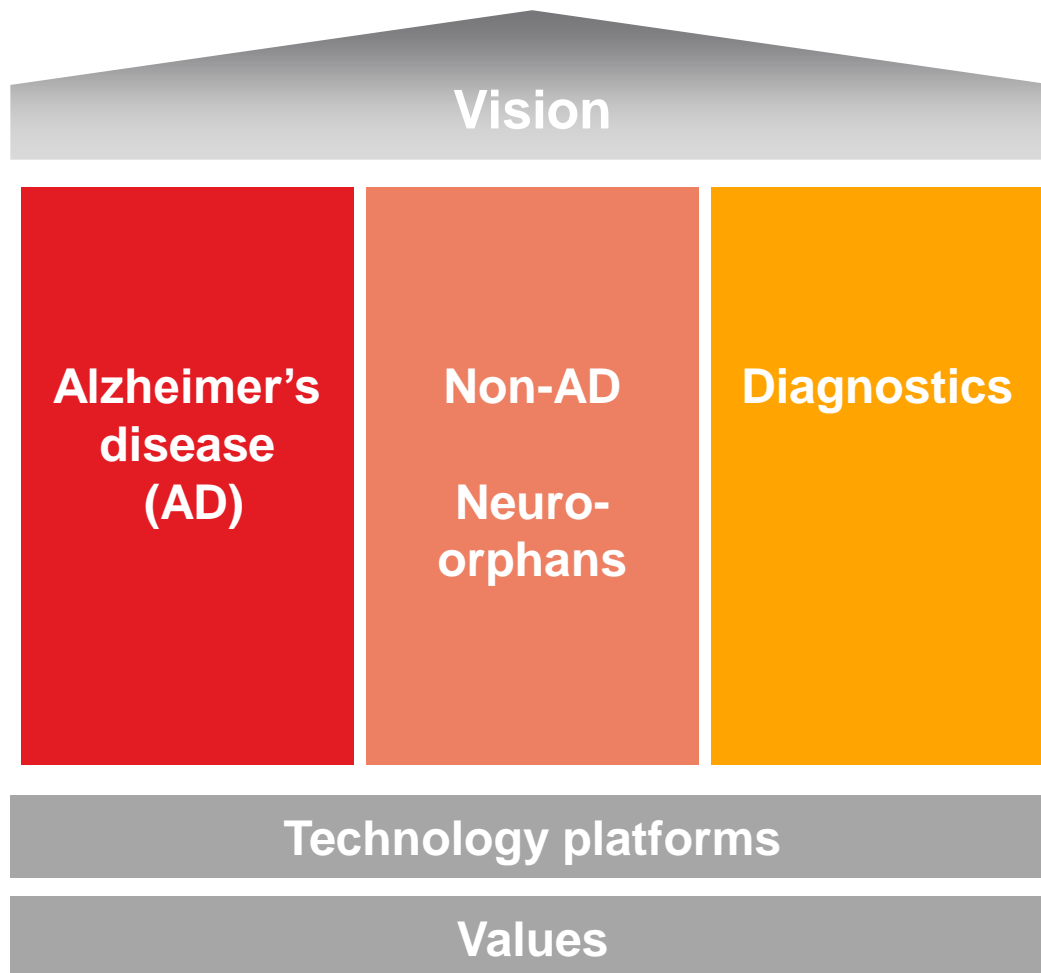
3

Diverse product pipeline with complementary diagnostic agents in clinical development



# Business strategy: 3-pillar approach

Precision medicine creates ultimate differentiation



## Alzheimer's disease

- Develop best-in-class late stage assets in partnership
- Develop preventive/therapeutic vaccines as fully owned assets
- Establish a pipeline of disease modifying small molecules

## Non-AD, neuro-orphans

- Discover therapeutics in Parkinson's disease
- Leverage AD therapeutics in Down syndrome (DS), PSP<sup>1</sup> and other neuro-orphan diseases

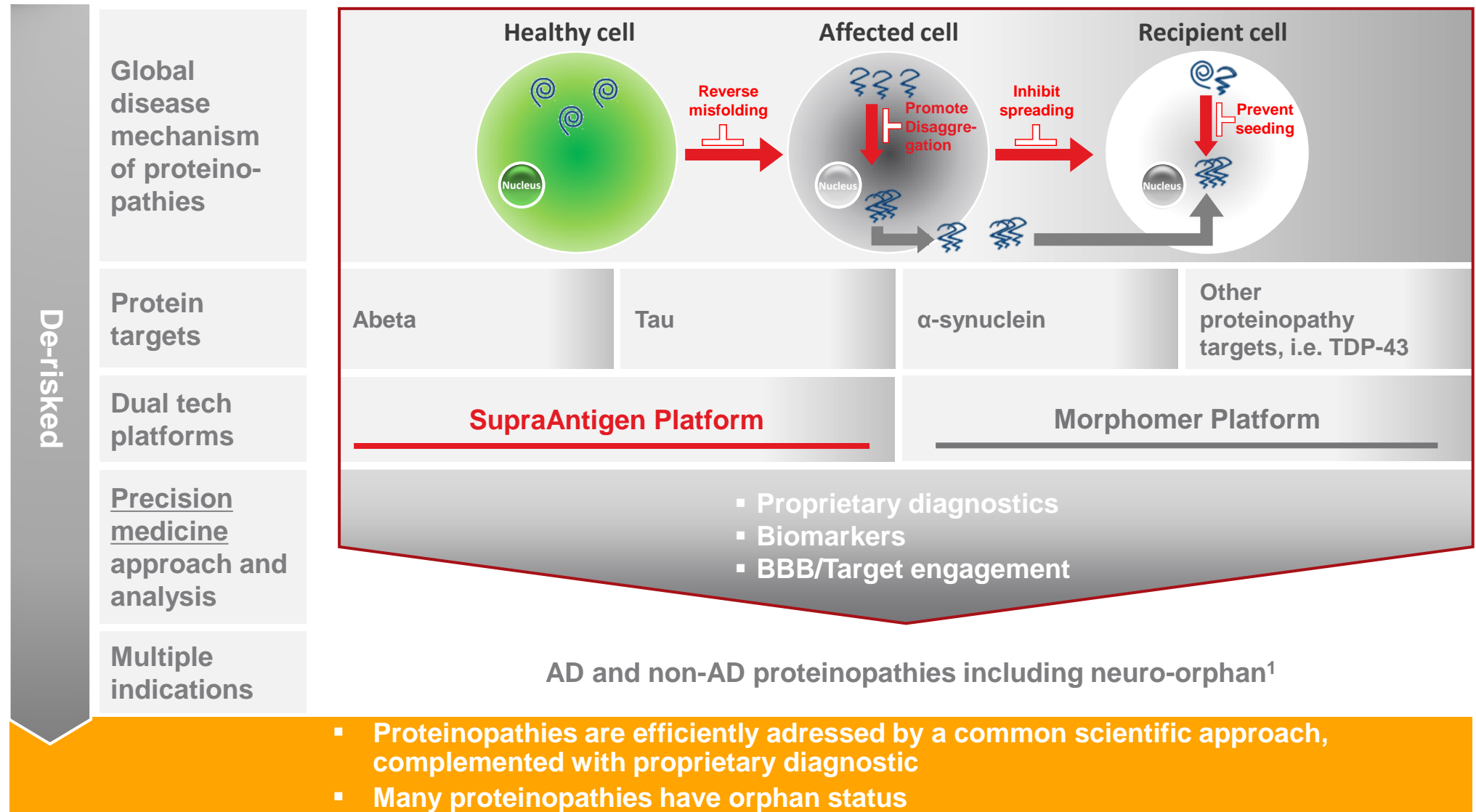
## Diagnostics

- Accelerate diagnostic pipeline to late stage development
- Use diagnostics for improved clinical trials and external partnerships

(1) Progressive supranuclear palsy

# High-Science approach to proteinopathies

Dual platforms enable discovery and opportunity for synergistic development



(1) non-AD proteinopathies: Parkinson's disease; Down syndrome, progressive supranuclear palsy (PSP); Frontotemporal dementia (FTD); Dementia with Lewy Bodies; cerebral amyloid angiopathy; myotonic dystrophy; corticobasal degeneration; Pick's disease; amyotrophic lateral sclerosis; chronic traumatic encephalopathy

# Technology platforms

Product-focused and highly versatile platforms drive growth

## SupraAntigen™

Vaccines and antibodies specific to disease causing conformations



### Immunotherapy against conformation-specific targets



- Highly selective conformation-specific immunotherapy
- Antibodies and vaccines
- Rapid antibody response
- Favorable safety (T-cell independent )

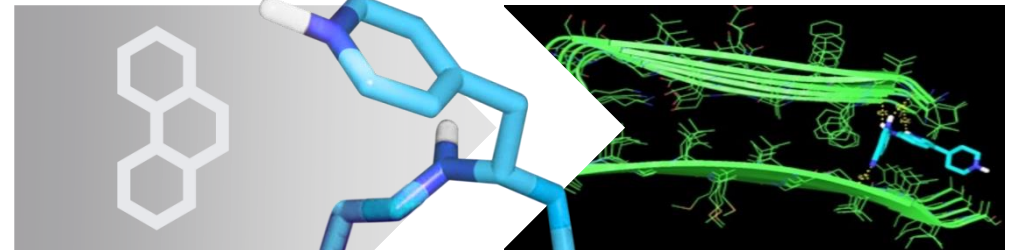
- **Crenezumab<sup>1</sup>** in AD (Ph 3)
- **ACI-24<sup>1</sup>** in AD (Ph 1/2a) and DS (Ph1b)
- **ACI-35<sup>2</sup>** in AD (Ph 1b)
- **Anti-Tau antibody<sup>2</sup>** in AD (Ph 1)
- **$\alpha$ -synuclein<sup>3</sup>/TDP-43<sup>4</sup> antibodies** in PD and neuro-orphan indications (pre-clinical)

(1) Abeta (2) Tau (3)  $\alpha$ -synuclein (4) TDP-43

## Morphomer™

Conformation sensitive small molecules

### Generation of conformation-specific small molecules



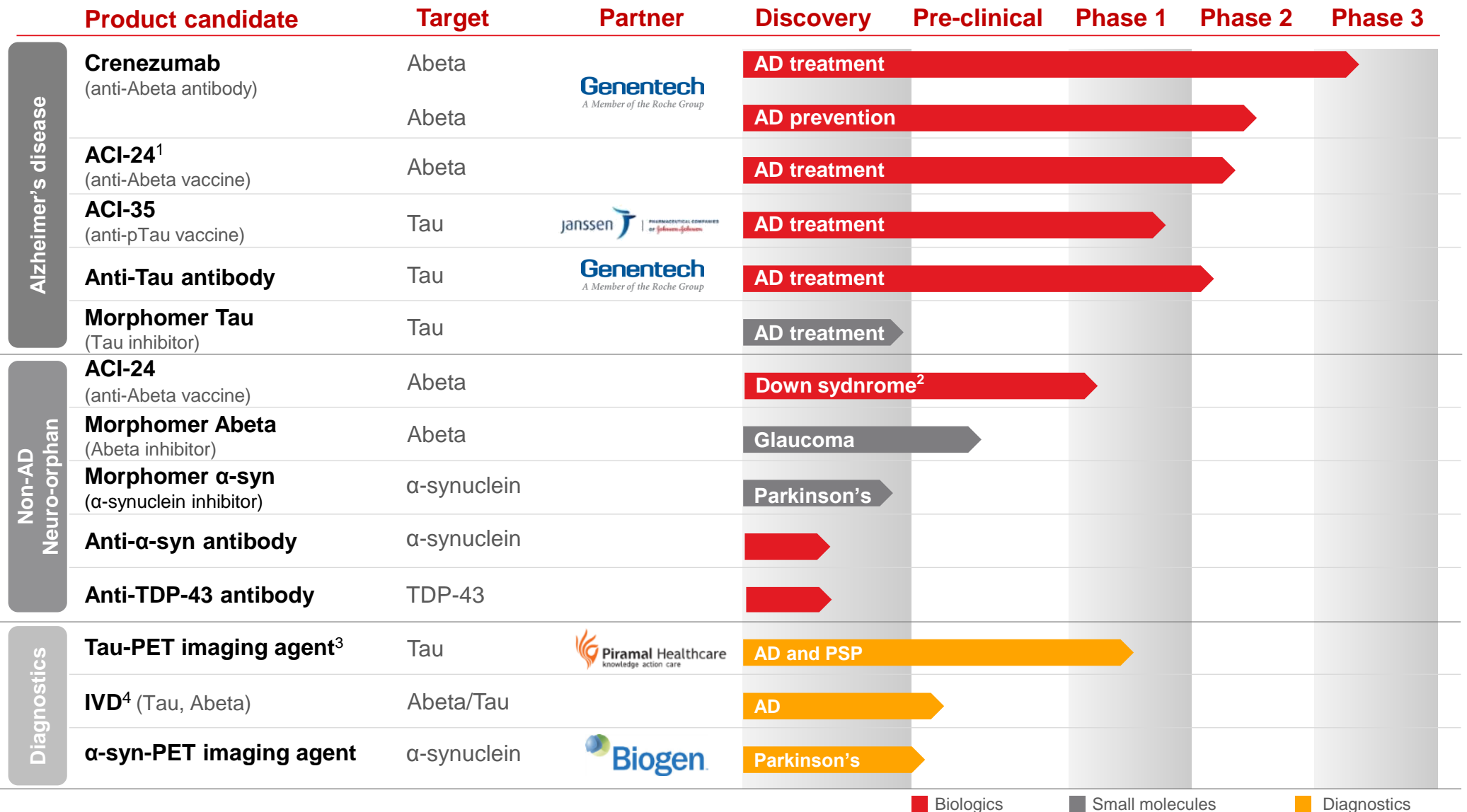
- Conformation specific small molecules through rational design
- Robust library of small molecules
- Protein propagation inhibitors

- **Tau-PET imaging agent<sup>2</sup>** in AD and PSP (Ph 1)
- **Morphomers for different targets<sup>1,2,3</sup>** in AD and PD (discovery / pre-clinical)
- **$\alpha$ -syn-PET imaging agent<sup>3</sup>** in PD (pre-clinical)



# AC Immune's robust pipeline

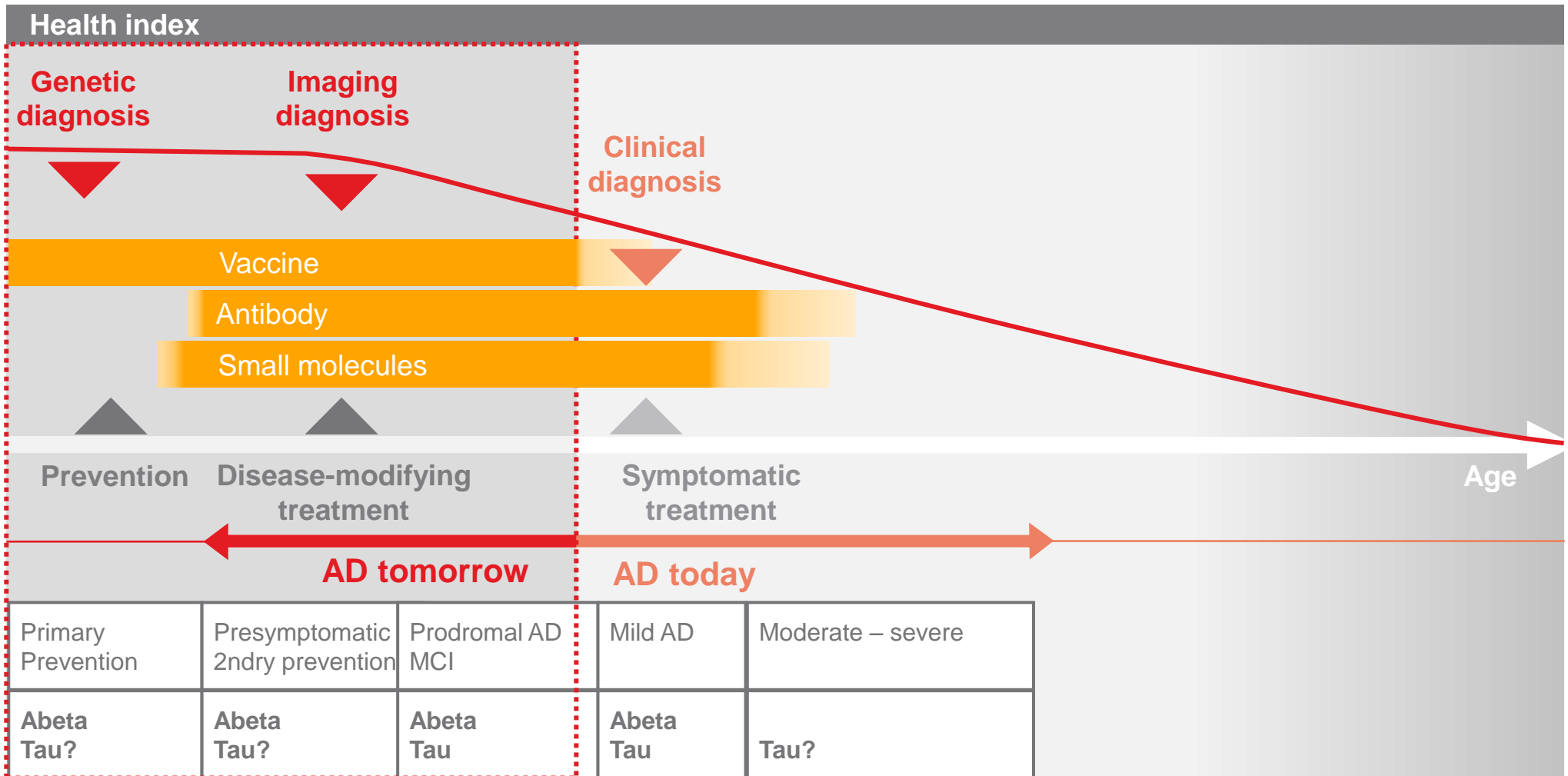
Driven by proprietary technology platforms



(1) In process of completing a Phase 1/2a study; (2) AD and cognitive impairment associated with Down syndrome; (3) Positron emission tomography; (4) *in-vitro* diagnostic

# Alzheimer's disease treatment

Early diagnosis translates into earlier treatment and better outcome



▪ The future treatment paradigm for neurodegenerative diseases may involve **different disease-modifying treatments used at various points in the progression of the disease**

- Possible **combination** therapies:
  - Passive immunization targeting Abeta (e.g., crenezumab) together with anti-Tau antibodies
  - Immunotherapies and small molecules targeting Abeta or Tau


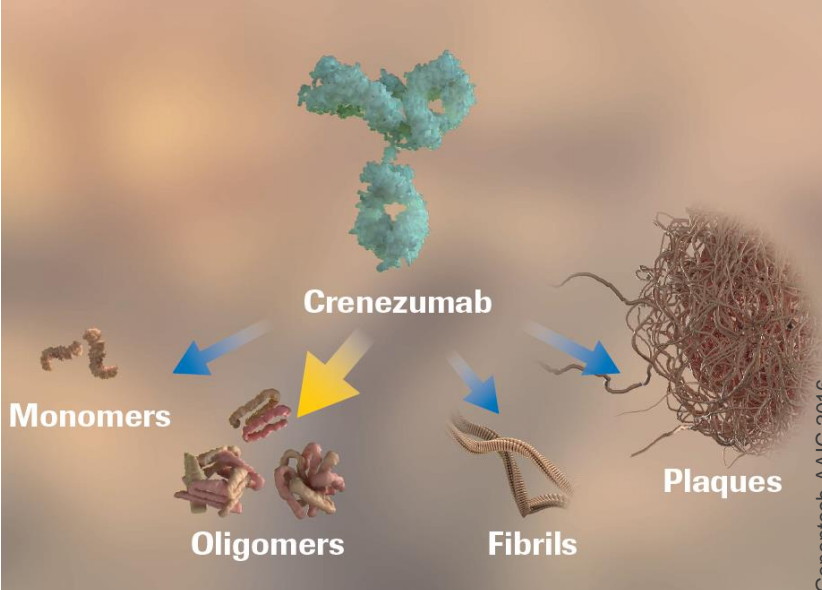
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# Clinical pipeline

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# Crenezumab – Phase 3 in AD



<b>Target</b>	Misfolded Abeta	
<b>Licensed to</b>	 <i>A Member of the Roche Group</i>	
<b>Key results in pre-clinical studies</b>	<ul style="list-style-type: none"> <li>▪ Unique epitope, breaks up Abeta aggregation and prevents assembly</li> <li>▪ Binds to monomers, oligomers (10x higher affinity) and fibrils of Abeta</li> <li>▪ IgG4 antibody designed to reduce effector function on microglia translating to superior safety profile                             <ul style="list-style-type: none"> <li>▪ Clears excess of Abeta while limiting inflammatory cytokines to avoid ARIA-E<sup>1</sup> behavioral deficits</li> </ul> </li> </ul>	 <p style="text-align: right; font-size: small;">Genentech AAIC 2016</p>
<b>Development status</b>	<ul style="list-style-type: none"> <li>▪ Phase 3 commenced in 2016 (CREAD 1) and 2017 (CREAD 2), fast-track designation</li> <li>▪ Encouraging Phase 2 data in mild patients</li> <li>▪ First-in-class drug in AD prevention trial (Phase 2)</li> </ul>	

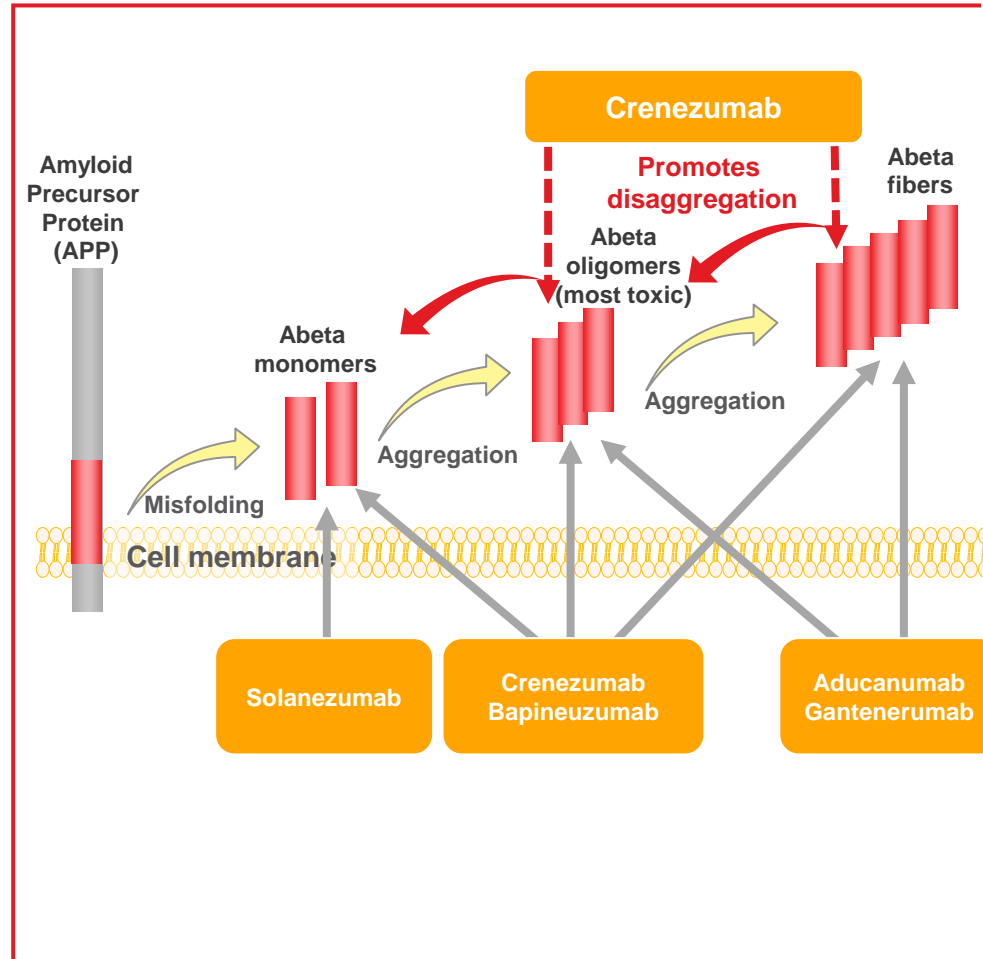
(1) ARIA-E = Amyloid Related Imaging Abnormality- Edema

# Crenezumab

Compelling binding characteristics with unique disaggregation and safety profile



## Multiple neuroprotective mechanisms of action



## Uniquely differentiated binding profile with favorable preliminary safety profile

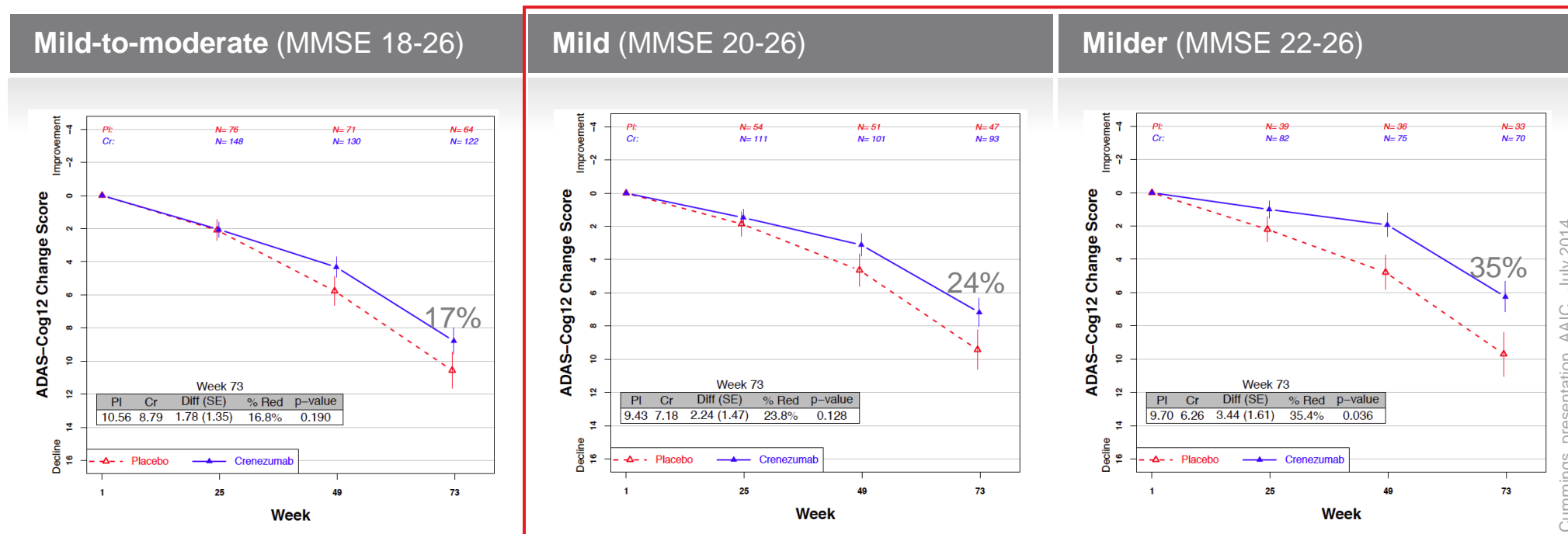
Antibody	Binding profile	Stage	Phase 3 dosage	Isotype	ARIA-E (safety)
<b>Crenezumab (GNE/Roche/AC Immune)</b>	Monomers + Oligomers +++ Fibrils ++	Phase 3	60mg/kg	IgG4	< 0.3% in Ph2
<b>Aducanumab (Biogen/Eisai)</b>	Oligomers +++ Fibrils +++	Phase 3	6mg/kg 10mg/kg	IgG1	41% and 37% in Ph1b
<b>Gantenerumab (Roche/Morphosys)</b>	Oligomers ++ Fibrils +++	Phase 3	1.5 mg/kg 3.2mg/kg	IgG1	10% in Ph1 MAD
<b>Solanezumab (Eli Lilly)</b>	Monomers +++	Phase 3 failed	5.7 mg/kg	IgG1	~0.5% in Ph3
<b>BAN2401 (Eisai/Biogen)</b>	Soluble Protofibrils +++ Fibrils +	Phase 2	2.5mg/kg 5 mg/kg 10mg/kg	IgG1	0% in Ph1
<b>Bapineuzumab (Eli Lilly/Pfizer/J&amp;J)</b>	Monomers ++ Oligomers +++ Fibrils ++	Terminated after Phase 3	0.5mg/kg 1 mg/kg	IgG1	~10% in Ph3

Crenezumab's multiple neuroprotective mechanisms of action, in particular direct binding and inhibition of toxic Abeta oligomers, may differentiate crenezumab's clinical benefit

# Crenezumab – Phase 2 results

ABBY cognition study high dose IV cohort

Stronger performance in milder patients (ADAS-cog 12)



Cummings, presentation AACI, July 2014

Mild (MMSE 20-26): pre-specified analysis of data

Milder (MMSE 22-26): non-prespecified exploratory analysis of data

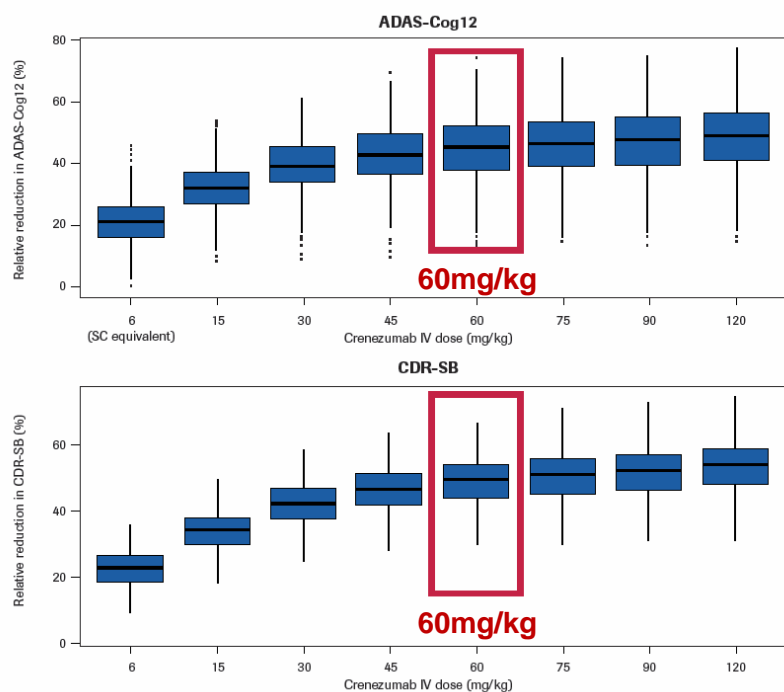
- Significant 35% reduction in cognitive decline in milder patients (p=0.036)
- In the mild and moderate patient population, a positive trend in cognition was observed although statistical significance was not achieved
- Consistent effects increasing over time

# Crenezumab – Phase 3

Anti-Abeta antibody with potential to become best-in-class disease modifying treatment for AD



## Dose-response simulation on cognitive endpoints in patients with mild AD (MMSE 22-26)



- Choice of the dose for Phase 3 based on modelling of results from the Phase 2 in a drug-disease model
- Antibody exposure needed for maximal cognitive and clinical effect reached at 60mg/kg
- Phase 1 safety results support use of 60mg/kg in Phase 3

## Key ongoing clinical studies

Pivotal CREAD 1 and CREAD 2 trial design builds on ABBY/BLAZE findings and latest Abeta understanding

### Study design

- 750 patients with prodromal to mild AD per study
- 60mg/kg every four weeks (4x higher than Phase 2 ABBY)

### Key Eligibility

- MMSE 22+ and CDR-GS 0.5/1.0
- Brain amyloid positivity
- 50-80 years of age

### Endpoints

- Primary endpoint: CDR-SB at 105 weeks
- Key secondary endpoint: ADAS-cog 13 at 105 weeks
- Other endpoints: safety, biomarkers and economic

### Study timelines

- CREAD 1 started in Q1 2016 – expected data 2020
- CREAD 2 started in Q1 2017 – expected data 2021

### API-ADAD prevention trial in Colombian population

- 300 cognitively healthy individuals expected to develop AD because of genetic history
- Study started in Q4 2013

Polhamus et al., poster CTAD, 2016

www.clinicaltrials.gov

# ACI-24 – Phase 1/2a in AD and Phase 1b in DS



## Anti-Abeta therapeutic vaccine

<b>Target</b>	Misfolded Abeta
<b>Key results in pre-clinical studies</b>	<ul style="list-style-type: none"> <li>Strong and robust antibody response<sup>1</sup> specific for oligos and fibrils</li> <li>Favorable safety profile with lack of local inflammation and T-cell independent mode-of-action<sup>1</sup></li> <li>Significant reduction of Abeta levels in brain and compelling memory enhancement (AD and DS models)</li> </ul> <div style="display: flex; justify-content: space-around;"> <div data-bbox="539 531 1227 970"> <p><b>Memory restoration (ORT<sup>3</sup>) in AD model</b></p> <p>Muhs et al., PNAS 2007</p> </div> <div data-bbox="1245 531 2004 970"> <p><b>Memory restoration (ORT<sup>3</sup>) in DS model</b></p> <p>Belinchenko et al., PLOS ONE 2016</p> </div> </div>
<b>AD development status</b>	<ul style="list-style-type: none"> <li><b>Clinical Phase 1/2a (in-house) with interim data</b> <ul style="list-style-type: none"> <li>Positive safety and tolerability</li> <li>Cohort 3 showed trend of reduction of accumulation of brain amyloid (PET imaging)</li> <li>Cohort 3 showed trend of reduction of clinical decline (CDR-SB)</li> </ul> </li> </ul>
<b>DS development status</b>	<p><b>Clinical Phase 1b with interim data expected in 2018</b></p> <ul style="list-style-type: none"> <li>World first clinical trial for vaccine targeting AD in people with Down syndrome</li> <li>Dose escalation study in up to 24 adults with Down syndrome (25-45 years)</li> <li>Endpoints: safety and tolerability, effect on induction of anti-Abeta antibodies, biomarkers for Abeta brain and CSF load</li> <li>Recruitment of low-dose cohort completed in Q3 2017</li> </ul>


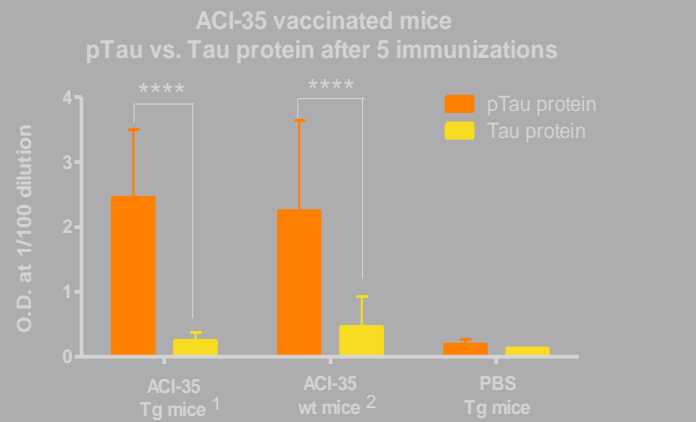
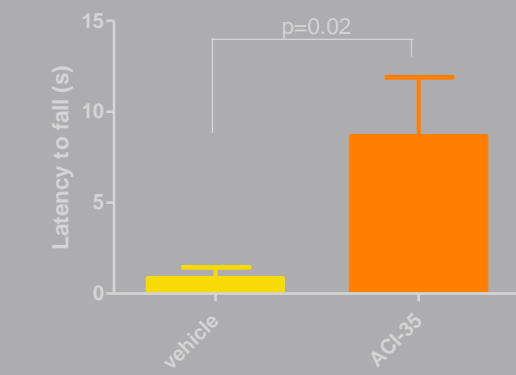
(1) Pihlgren et al., Blood 2013; (2) ELISA = Enzyme Linked Immunosorbent Assay; (3) ORT = Object Recognition Test



# ACI-35 - Phase 1b in AD

Anti-pTau therapeutic vaccine



<b>Target</b>	Aggregated pTau																		
<b>Licensed to</b>	 PHARMACEUTICAL COMPANIES or Johnson-Johnson																		
<b>Key results in pre-clinical studies</b>	<ul style="list-style-type: none"> <li>High specific antibody response to pathogenic Tau</li> <li>Improvement of cognition, physical performance, behavior and prolongation of survival</li> <li>Favorable safety profile with T-cell independent mode-of-action</li> </ul> <div style="display: flex; justify-content: space-around;"> <div data-bbox="533 662 1288 1204"> <p><b>Immune response highly specific to phosphorylated-Tau</b></p> <p>ACI-35 vaccinated mice pTau vs. Tau protein after 5 immunizations</p>  <table border="1"> <caption>O.D. at 1/100 dilution</caption> <thead> <tr> <th>Group</th> <th>pTau protein</th> <th>Tau protein</th> </tr> </thead> <tbody> <tr> <td>ACI-35 Tg mice 1</td> <td>~2.5</td> <td>~0.3</td> </tr> <tr> <td>ACI-35 wt mice 2</td> <td>~2.3</td> <td>~0.5</td> </tr> <tr> <td>PBS Tg mice</td> <td>~0.2</td> <td>~0.1</td> </tr> </tbody> </table> </div> <div data-bbox="1321 662 2105 1204"> <p><b>Highly significant improvement of behavior (P301S)</b></p> <p>15 rpm ACI-R-40 Rotarod 5 M vehicle vs. ACI-35</p>  <table border="1"> <caption>Latency to fall (s)</caption> <thead> <tr> <th>Group</th> <th>Latency to fall (s)</th> </tr> </thead> <tbody> <tr> <td>vehicle</td> <td>~1.0</td> </tr> <tr> <td>ACI-35</td> <td>~8.5</td> </tr> </tbody> </table> <p style="text-align: right; font-size: small;">AC Immune unpublished data</p> </div> </div>	Group	pTau protein	Tau protein	ACI-35 Tg mice 1	~2.5	~0.3	ACI-35 wt mice 2	~2.3	~0.5	PBS Tg mice	~0.2	~0.1	Group	Latency to fall (s)	vehicle	~1.0	ACI-35	~8.5
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Group	Latency to fall (s)																		
vehicle	~1.0																		
ACI-35	~8.5																		
<b>Development status</b>	<ul style="list-style-type: none"> <li>Clinical Phase 1b with interim data                         <ul style="list-style-type: none"> <li>Acceptable safety and tolerability</li> <li>Dose-dependent and target-specific antibody response to pTau</li> </ul> </li> </ul>																		

(1) Tg = Transgenic; (2) wt = wild type

# Anti-Tau antibody - Phase 2 in AD

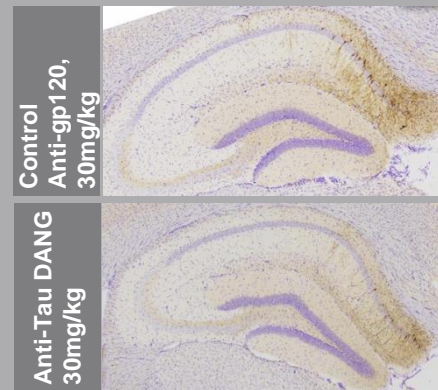
Anti-Tau antibody (RO7105705)



<b>Target</b>	Designed to intercept the cell-to-cell spread of pathological tau in extracellular space of brain
<b>Licensed to</b>	<b>Genentech</b> A Member of the Roche Group
<b>Key pre-clinical results</b>	<ul style="list-style-type: none"> <li>Tau pathological spread is dose dependently reduced independent of effector function</li> <li>Proven target engagement through dose-dependent rise of plasma Tau (mice, cynos)</li> </ul>

## Pre-clinical results

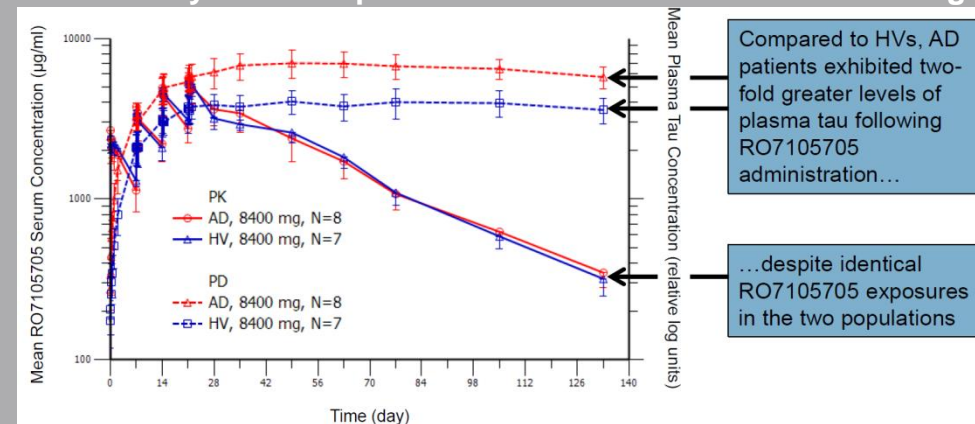
Dose dependent reduction of Tau pathology



AD/PD conference, Vienna, April 2017

## Clinical results

Pharmacodynamic response: Plasma Tau concentration 2x higher in AD than in HV<sup>1</sup>



Kerchner et al., CTAD 2017

## Development status

(1) Healthy volunteers

### Phase 1 data

- No dose-limiting toxicities up to high doses
- Dose-proportional PK with median half-life of 32.3 days
- Detectable in CSF, indicating CNS exposure
- Pharmacodynamic response: 2x greater plasma Tau concentrations observed in patients with AD than in HVs

### Phase 2 design

- 360 prodromal-to-mild AD patients (MMSE 20-30, CDR-GS 0.5 or 1)
- 3 active doses or placebo for 72 weeks, followed by 96 week open label study
- Primary endpoints: safety measures and CDR-SB

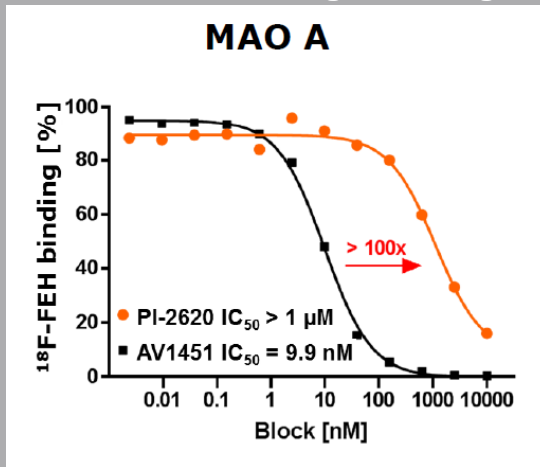
# Tau-PET imaging – Phase 1 in AD and PSP



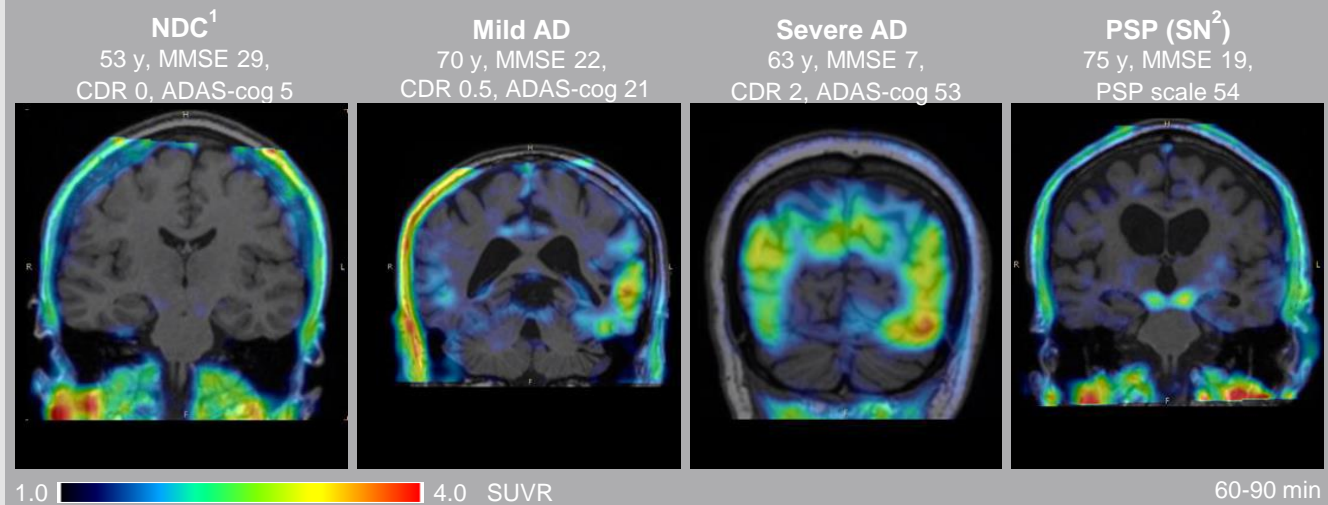
Morphomer Tau PI-2620

<b>Target</b>	Misfolded Tau (4R and 3R)
<b>Licensed to</b>	Piramal Imaging 
<b>Key results</b>	<ul style="list-style-type: none"> <li>High specificity for pathological forms of human Tau in AD and other tauopathies</li> <li>Outstanding PET tracer-profile – excellent brain penetration and high selectivity even in early disease stage</li> </ul>

Pre-clinic: High selectivity and absence of off-target binding



Phase 1 clinical study: distinct, specific Tau distribution pattern in AD and PSP



Stephens, AD/PD conference, Vienna, April 2017

## Development status

- Clinical Phase with interim data
  - Fast kinetics with robust brain uptake, fast wash-out in non-target regions and low off-target uptake
  - Distinct and specific Tau distribution pattern in AD and PSP subjects
  - Good reproducibility of PET-scans confirmed by test-retest study

(1) NDC = non-demented control; (2) SN = substantia nigra

# Financial overview and catalyst timeline

# Financial highlights



- Cash position CHF 124.2 million
- Pre-IPO financing rounds raised approx. \$130 million<sup>1</sup>
- Funding through partnering activities including potential payments of more than \$1.4 billion; \$1.26 billion outstanding
- Cash runway: Fully funded through 2019
- Net proceeds from September 2016 IPO: \$70.5m
- Quarterly burn-rate: CHF 13.5 to 15 million
- Analyst coverage: Credit Suisse, Leerink, Jefferies

(1) exchange rate fixed as of closing date of last financing round

# Successful execution of strategy with supportive near-term milestones

## Achievements since IPO

## Key milestones for H2 2017–18

	Achievements since IPO	Key milestones for H2 2017–18
Data read-outs	<ul style="list-style-type: none"> <li>✓ Q1 2017: Encouraging pre-clinical and early Phase 1 data of Tau-PET imaging agent in AD</li> <li>✓ Q1 2017: Encouraging interim data of Phase 1/2a of ACI-24 and Phase 1b of ACI-35</li> <li>✓ Q4 2016: Crenezumab Phase 1b safety data and exposure-response model supporting dosage of 60mg/kg (4x higher vs. Phase 2)</li> </ul>	<ul style="list-style-type: none"> <li>▪ 2017: ACI-24 in AD Phase 1/2a (safety-only data)</li> <li>▪ 2017: ACI-35 in AD Phase 1b results</li> <li>▪ 2018: ACI-24 Phase 1b in DS interim data</li> </ul>
Study initiations	<ul style="list-style-type: none"> <li>✓ Q4 2016: Tau-PET imaging agent start of Phase 1 clinical study in PSP (milestone from Piramal Imaging)</li> <li>✓ Q1 2017: Second pivotal Phase 3 trial of Crenezumab CREAD 2 started by Genentech</li> <li>✓ Q4 2017: Phase 2 of anti-Tau antibody based on Phase 1 data started by Genentech</li> </ul>	<ul style="list-style-type: none"> <li>▪ 2017: ACI-24 in AD Phase 2</li> <li>▪ 2017: ACI-35 next phase of clinical development based on Phase 1b data</li> <li>▪ 2017: Tau-PET imaging agent Phase 2</li> <li>▪ 2017: <math>\alpha</math>-synuclein-PET imaging agent development</li> <li>▪ 2017 / 2018: Morphomer Tau development</li> </ul>
Partnerships	<ul style="list-style-type: none"> <li>✓ Q1 2017: Research collaboration with Essex Bio-Technology neuroprotective agent for treatment of AD and frontotemporal dementia (FTD)</li> <li>✓ Q4 2017: Continuation of MJFF grant for <math>\alpha</math>-synuclein PET tracer for Parkinson's disease</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential future strategic collaboration(s)</li> </ul>

# Strategy for value creation

