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Carnegie Healthcare Seminar

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BioArctic – a unique Swedish biopharma company
Improving life for patients with central nervous system disorders

High unmet need for disease-modifying treatments for Alzheimer's and Parkinson's diseases creates **large commercial opportunity**

World-class research and development driven organization with basis in founder's breakthrough discoveries and fruitful collaborations with leading **academic researchers** and **pharma companies** generating and developing **innovative projects**

Attractive and well-balanced project portfolio with projects from discovery through Phase 3 and combination of both proprietary projects with substantial marketing and out-licensing potential and partnered projects generating income

Well-financed with close to MSEK 850 (MUSD ~94[1]) in cash and **valuable collaboration agreements** totaling BSEK 9.1[2] (BUSD ~1) plus royalties

1) FX as per December 31, 2021
2) FX as per December 31, 2021

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Attractive and well-balanced project portfolio combines fully-financed partner projects and cutting-edge proprietary projects

	Project	Partner	Discovery	Preclinical	Phase 1	Phase 2	Phase 3
ALZHEIMER'S DISEASE	Lecanemab (BAN2401) *(Clarity AD)*	Eisai[1]	Early Alzheimer's disease[3]				
	Lecanemab (BAN2401) *(AHEAD 3-45)*	Eisai[1]	Preclinical (asymptomatic) Alzheimer's disease[4]				
	BAN2401 back-up	Eisai					
	AD1801						
	AD1502						
	AD1503						
	AD-BT2802						
	AD-BT2803						
	AD2603						
PARKINSON'S DISEASE	ABBV-0805[2]	AbbVie					
	PD1601	AbbVie					
	PD1602	AbbVie					
OTHER CNS DISORDERS	Lecanemab (BAN2401)		Down's syndrome[5] Traumatic brain injury[5]				
	ND3014		ALS				
BLOOD BRAIN BARRIER	Brain Transporter (BT) technology platform						
DIAGNOSTICS	Imaging and biochemical biomarkers – Alzheimer's disease						
	Imaging and biochemical biomarkers – Parkinson's disease	AbbVie					

as of December 31, 2021

1) Partnered with Eisai for lecanemab (BAN2401) for treatment of Alzheimer's disease. Eisai entered partnership with Biogen regarding lecanemab (BAN2401) in 2014
2) AbbVie in-licensed BAN0805 in late 2018 and develops the antibody with the designation ABBV-0805
3) Mild cognitive impairment due to Alzheimer's disease and mild Alzheimer's disease
4) Normal cognitive function with intermediate or elevated levels of amyloid in the brain
5) Dementia and cognitive impairment associated with Down´s syndrome and with traumatic brain injury

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Long-standing and successful partnerships – de-risking clinical development and optimizing commercialization

	Alzheimer's disease	Parkinson's disease
Partner track record	Eisai: Discovered and developed world's best-selling medicine for symptoms in Alzheimer's Industry-leading pipeline in dementia area Aricept donepezil HCl tablet: Used to treat confusion (dementia) related to Alzheimer's disease	abbvie: World's all-time best-selling medicine (BUSD 20) Duopa carbidopa/levodopa: Approved product for symptoms associated with Parkinson's disease HUMIRA adalimumab: 10 different indications in immunology
Collaboration and license	MEUR 222 *Total value agreements* MEUR 66 RECEIVED Royalties High single digit % **BioArctic retains rights to lecanemab in other indications and option to market in the Nordics**	MUSD 755 *Total value agreements* MUSD 130 RECEIVED Royalties Tiered % **AbbVie has global rights to alpha-synuclein portfolio for all indications**

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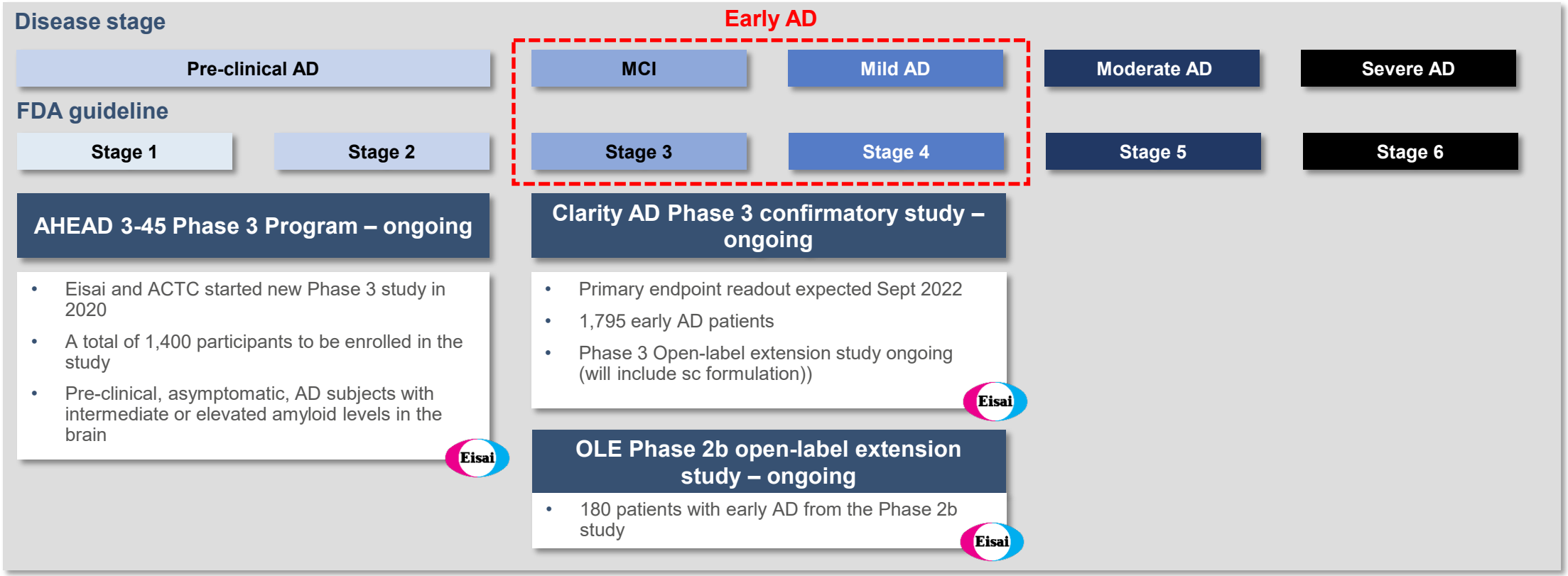
Lecanemab – broad late-stage clinical program in Alzheimer's disease



Sub cutaneous (sc) formulation – Phase 1 study – select optimal dose for OLE Q1 2022

Eisai

Selected as background treatment in DIAN-TU Tau NexGen study – first patient enrolled in January 2022

Eisai

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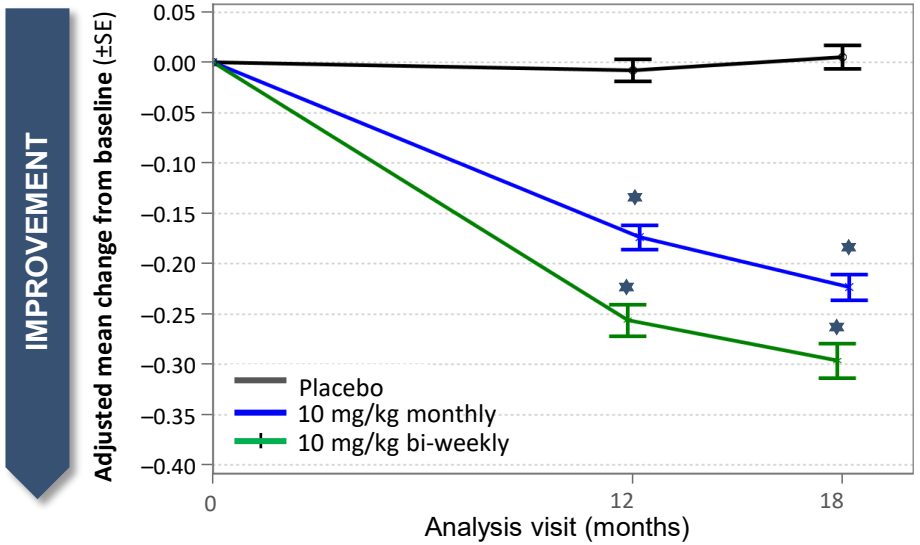
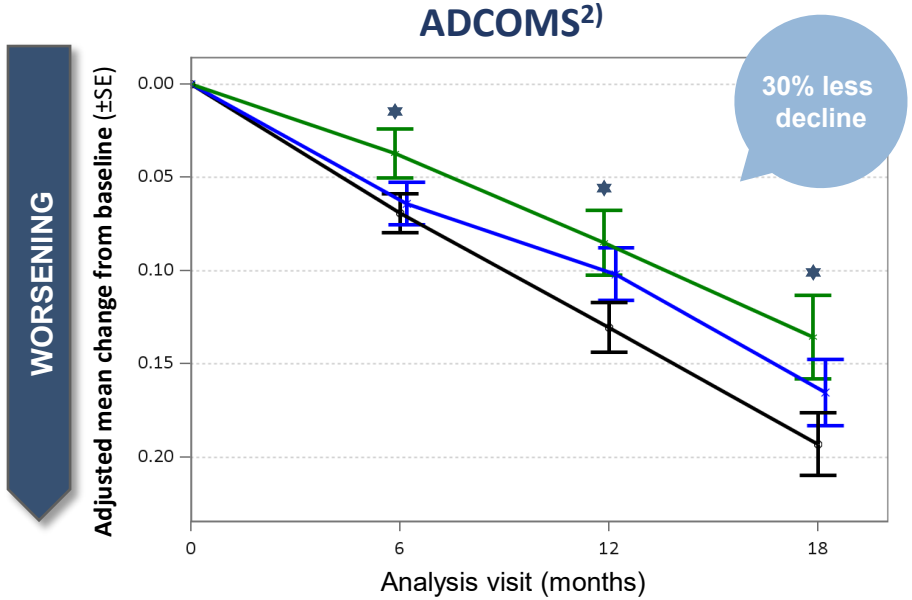
Lecanemab – potential disease modifying antibody with encouraging Phase 2b efficacy & safety profile in early Alzheimer's disease

Amyloid PET[1] SUVr



93% reduction in PET[1] centiloid
>90% of patients negative amyloid PET[1] SUVr

ADCOMS[2]



Similar results for CDR-SB and ADAS-cog

Lecanemab has positive Phase 2b results

- **Large trial –** 856 early Alzheimer's patients
- **Consistent effects** on clinical outcomes, imaging and neurodegenerative biomarkers
- **Rapid onset** of clinical effect
- **Effect increases over time**
- **Good safety profile –** no titration required due to low frequency of ARIA–E (<10%)

✸ *Statistically significant*

Source: Presented at the Clinical Trials on Alzheimer's Disease Conference 2018; Barcelona, Spain. October 25, 2018, Alzheimer's Research & Therapy volume 13, Article number: 80 (2021). Note: 1) PET: positron emission tomography, 2) Alzheimer's disease composite score

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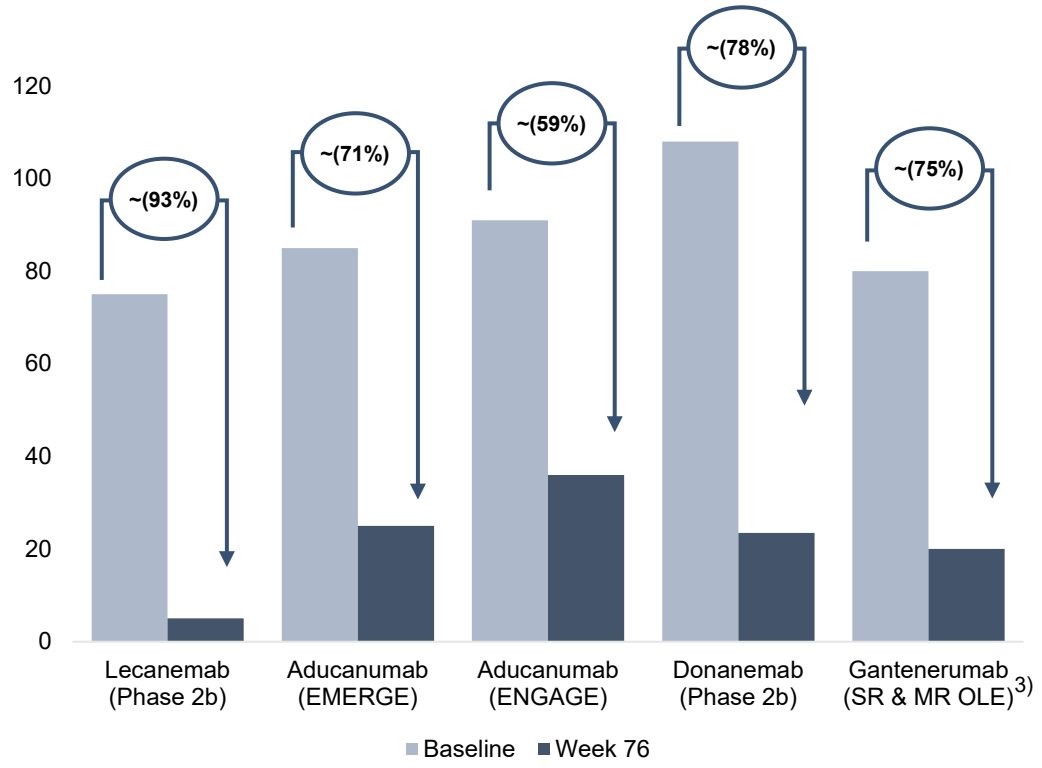
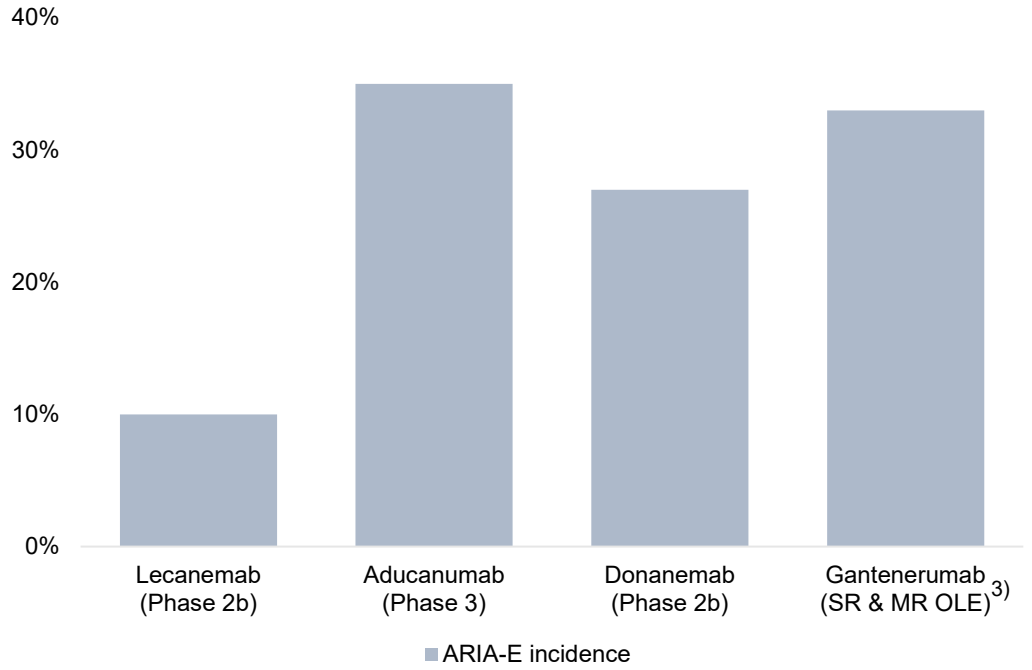
Lecanemab – strongest reduction of brain amyloid in Alzheimer patients and lowest ARIA-E incidence among late-stage competitors

PET[1] amyloid, centiloids



ARIA-E[2] incidence



Note: 1) PET: positron emission tomography, 2) Amyloid related imaging abnormalities edema, 3) Week 104
Curtesy Carnegie research

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Lecanemab – potential to lead the paradigm shift in the treatment of Alzheimer's disease

Increased likelihood for lecanemab success

- → Positive and consistent Phase 2b results
- → Phase 2b OLE further strengthens the Phase 2b results
- → Phase 3 study "Clarity AD" designed to confirm the positive Phase 2b results

✓

Opportunity to be first with full approval in US and EU

- → Accelerated approval pathway ongoing in the US and submission is expected to be completed Q2 2022
- → Submission for full approval in the US and EU and Japan planned by Q1 2023, pending topline Phase 3 data expected Sept 2022

✓

Opportunity to differentiate

- → Rapid and profound brain amyloid clearance
- → Early onset of clinical effect in slowing cognitive decline
- → Better tolerability profile than competition
- → Full dose from day one

✓

Further development programs

- → Subcutaneous injection
- → Blood biomarkers utilized to explore reduced dosing frequency for maintenance treatment
- → Expanded Alzheimer's disease populations:
  - → Selected for AHEAD in pre-symptomatic individuals
  - → Selected as background treatment for DIAN-TU NexGen study – dominantly inherited Alzheimer disease

✓

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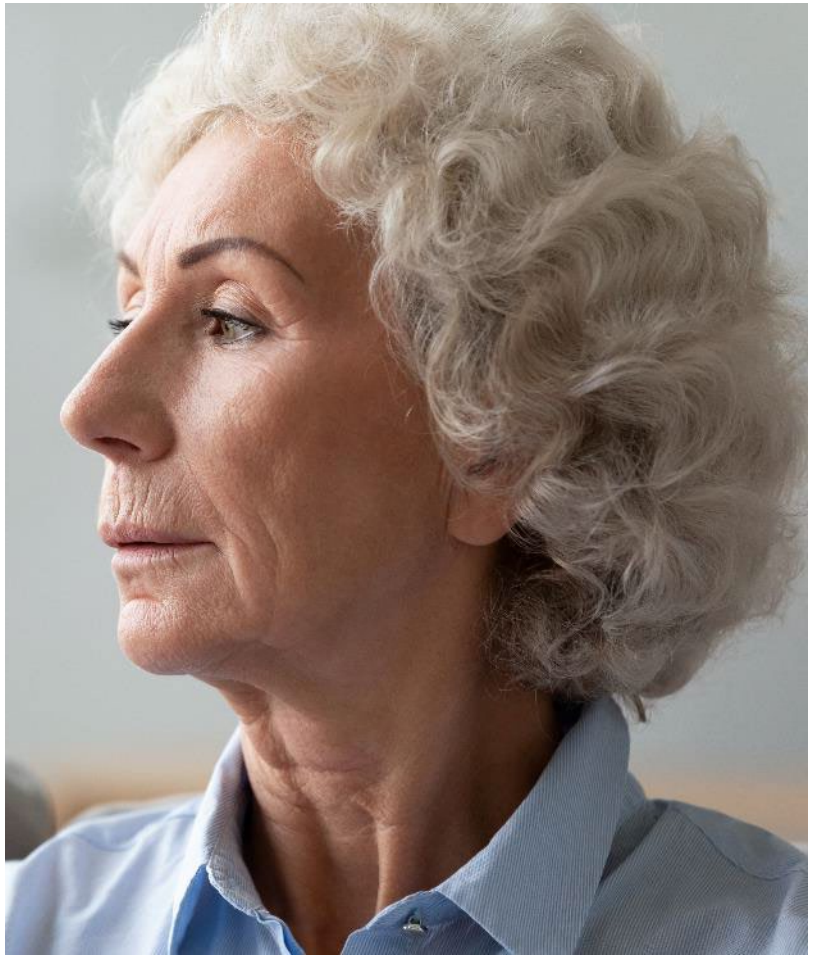
Recent highlights

Alzheimer's disease – Lecanemab

- Eisai initiated a rolling BLA submission under the accelerated approval pathway in September 2021.
  - In December, the second of three parts of the file was submitted
  - The submission is expected to be completed during Q2 2022
- Lecanemab was granted Fast Track designation by the FDA in December 2021
- Lecanemab granted "prior assessment consultation" in Japan and Eisai initiated submission of data in March 2022
- Lecanemab selected by DIAN-TU as backbone anti-amyloid therapy in combination with tau therapies in the NexGen study in dominantly inherited Alzheimer's disease
  - First patient enrolled in January 2022

Other

- Expanding into new indications and treatment target (TDP-43)
- Continuing to build Nordic commercial organization
  - four new recruits with vast industry experience



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ABBV-0805 – potential disease modifying antibody in Parkinson's disease in preparation for Phase 2

ABBV-0805

High unmet medical need

No existing disease-modifying treatment

Younger patient group, still at working age

TODAY

>6 million[1]
people with Parkinson's

Unique profile

Unique and targeted binding profile

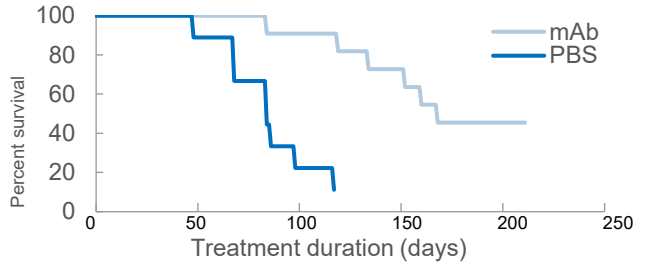
- Highly selective (>100,000) for pathological forms of misfolded alpha-synuclein (oligomers/protofibrils) vs physiological forms (monomers)

Built on genetic and pathology rationale

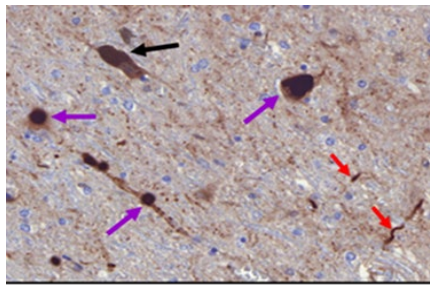
- Alpha-synuclein mutations lead to PD
- Alpha-synuclein oligomers/ protofibrils are elevated in PD

Pre-clinical proof of concept

- Reduction of neurotoxic alpha-synuclein oligomers/protofibrils
- Delays disease progression and increases lifespan



Human target binding of ABBV-0805 in PD brain



Black: neuromelanin ,Purple: Lewy bodies, Red:Lewy neurites

Phase 1 results presented at MDS congress in Sept 2021 support Phase 2 development with dosing once a month

Source: 1) Dorsey and Bloem, JAMA Neurology 2018;75:9-10
Data presented at the International Congress of Parkinson's disease and movement disorders® (MDS), held virtually September 17 to 22, 2021, and published in Neurobiology of Disease in November 2021.

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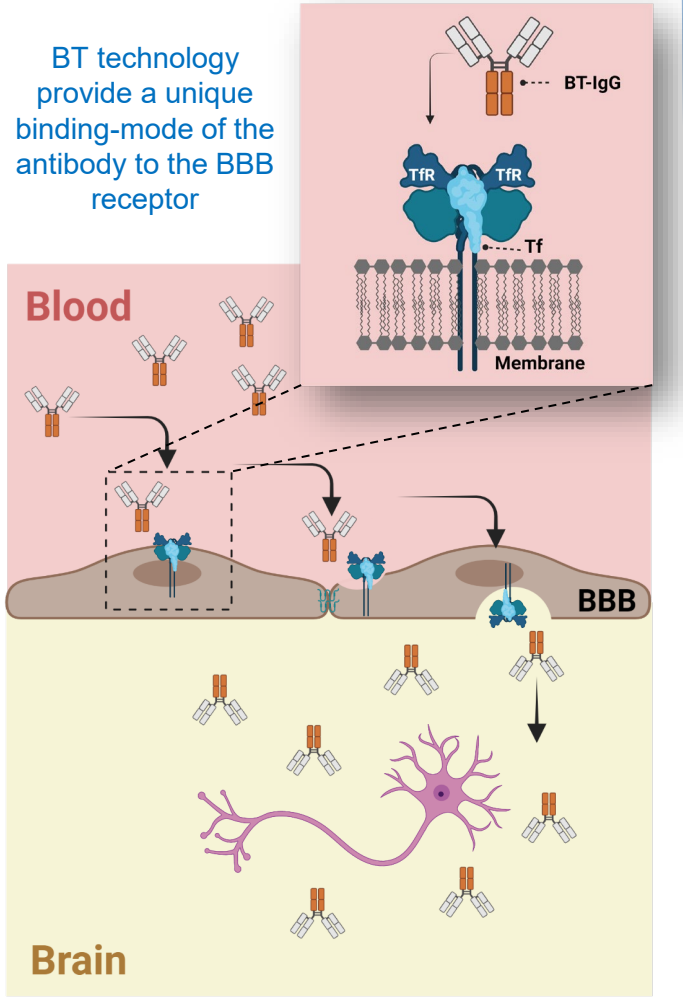
Brain Transporter (BT) technology delivers biotherapeutics to the brain

Novel platform achieves high exposure and broad brain distribution

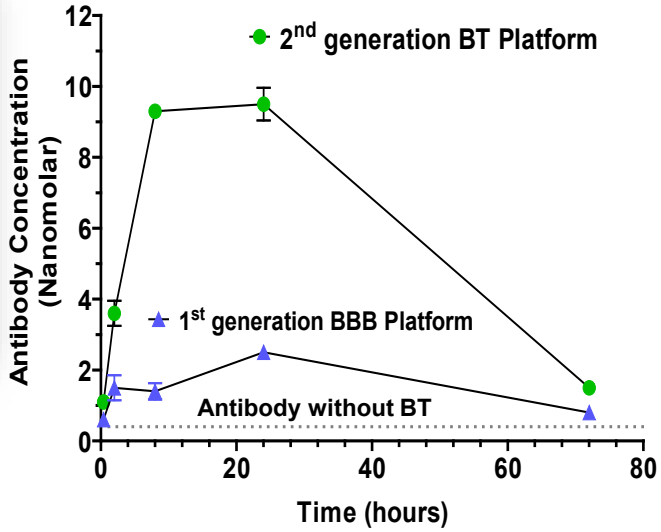
BT

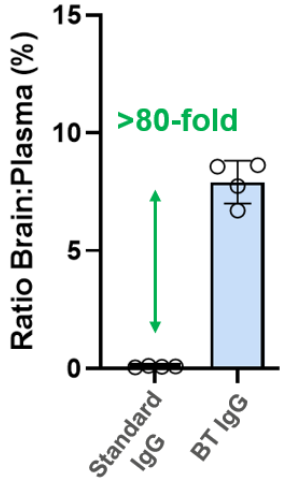
Brain Transporter technology mediate transport across the BBB

BT technology provide a unique binding-mode of the antibody to the BBB receptor



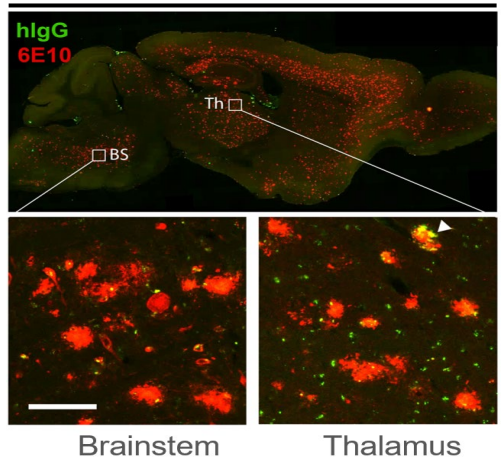
2nd – generation technology provide superior brain exposure



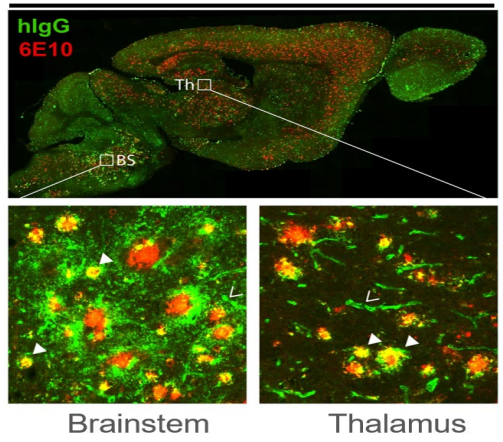


Rapid and global brain distribution

mAb158



BT-mAb158



Red: Amyloid-β plaque in the brain
Green: Antibody in the brain at the Amyloid-β target 8-hour post-dose

Short summary

- BT technology based on a novel approach using the Transferrin receptor (TfR) at the blood-brain barrier (BBB) (patent submitted)
- BT technology currently utilized in two portfolio projects (AD-BT2802, AD-BT2803)

Opportunity

- Drug delivery across the BBB remains a key obstacle for the development of efficient neurological disease therapies
- Opportunity to combine BT technology with internal projects as well as external antibodies or proteins through several non-exclusive license deals

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TDP-43 – opportunity for ALS and other neurodegenerative disorders

ND3014

Amyotrophic lateral sclerosis (ALS) – a debilitating rare disease

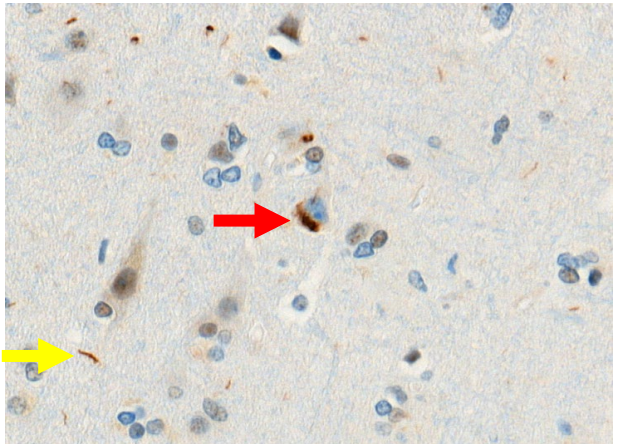
- Progressive neurodegenerative disease characterized by motor neuron degeneration

TDP-43 a promising target for ALS – an orphan disease indication

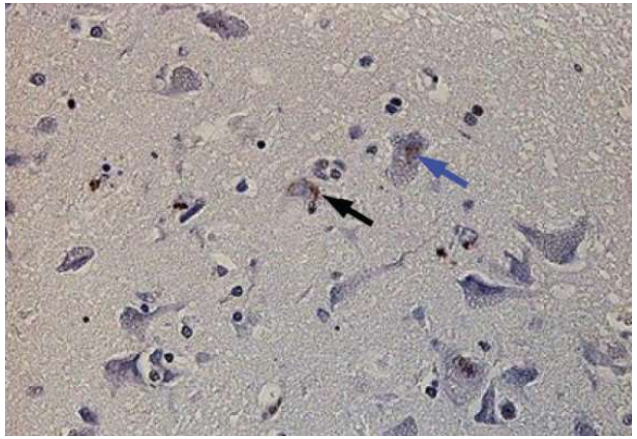
Several mutations in TARDBP (encoding TDP-43) are linked to familial ALS[1)] and FTD[2)]

Pathological aggregation of TDP-43 is found in multiple neurodegenerative diseases

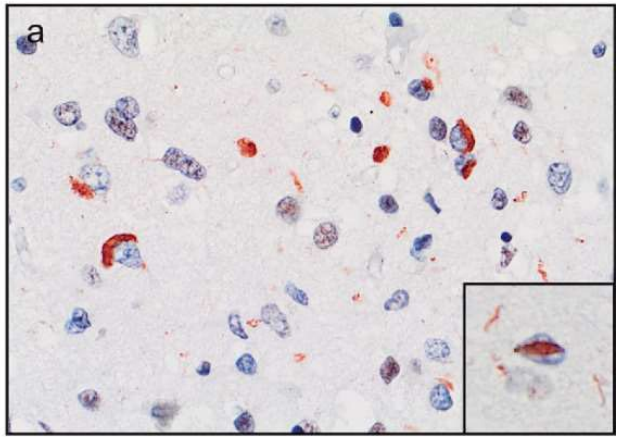
- 97% of **ALS[1)]** cases (orphan drug indication)
- 50% **AD[2)]** cases
- 45% **FTD[3)]** cases



TDP-43 pathology very common in **ALS[1)]**



Abnormal TDP-43 immunoreactivity is common in **AD[2)]**



Abnormal TDP-43 immunoreactivity is common in **FTD[3)]**

Source: Ling et. al. 2013
Note: 1) Amyotrophic lateral sclerosis, 2) Alzheimer's disease, 3) Fronto temporal dementia

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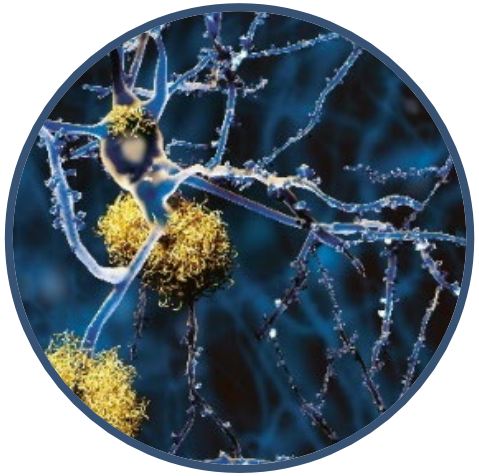
Upcoming news flow

Alzheimer's disease



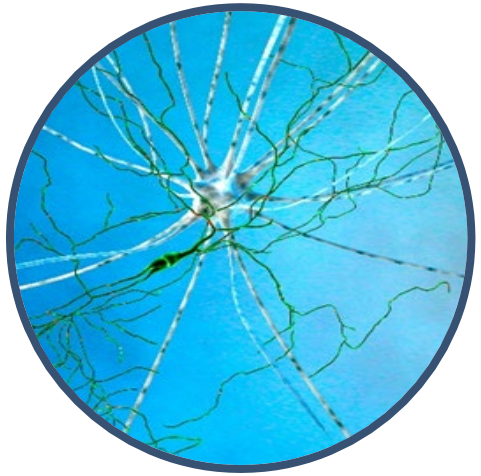
Lecanemab (Eisai)

- Rolling submission for accelerated approval in the US expected to be completed Q2 2022
- Clarity AD topline data expected in September 2022
- Data to be disclosed at international congresses

Discovery stage programs

- Advancement of projects

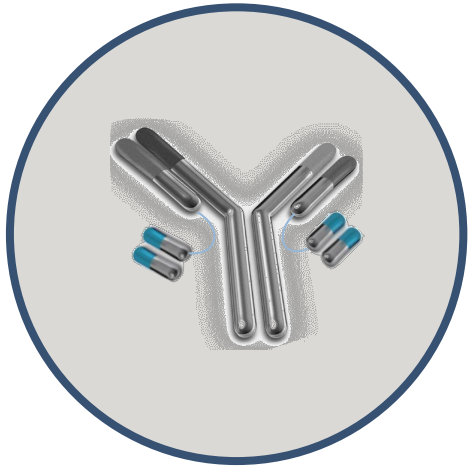
Parkinson's disease



ABBV-0805 (AbbVie)

- Start Phase 2
- Data presented at international congresses

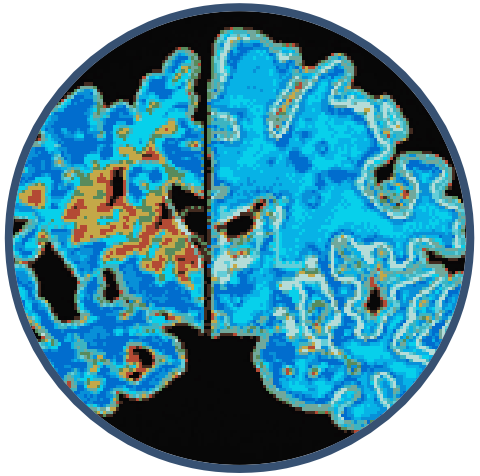
Blood-brain barrier



Brain Transporter (BT) technology platform

- Further development of the technology platform
- Data to be disclosed at international congresses

Other CNS disorders



Neurodegeneration

- Data to be disclosed at international congresses

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BioArctic: With Patients in Mind

Great science

Great projects

Great partners

Great people

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GUNILLA OSSWALD, CEO

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  Q1 Jan-Mar 2022
  on April 28, 2022
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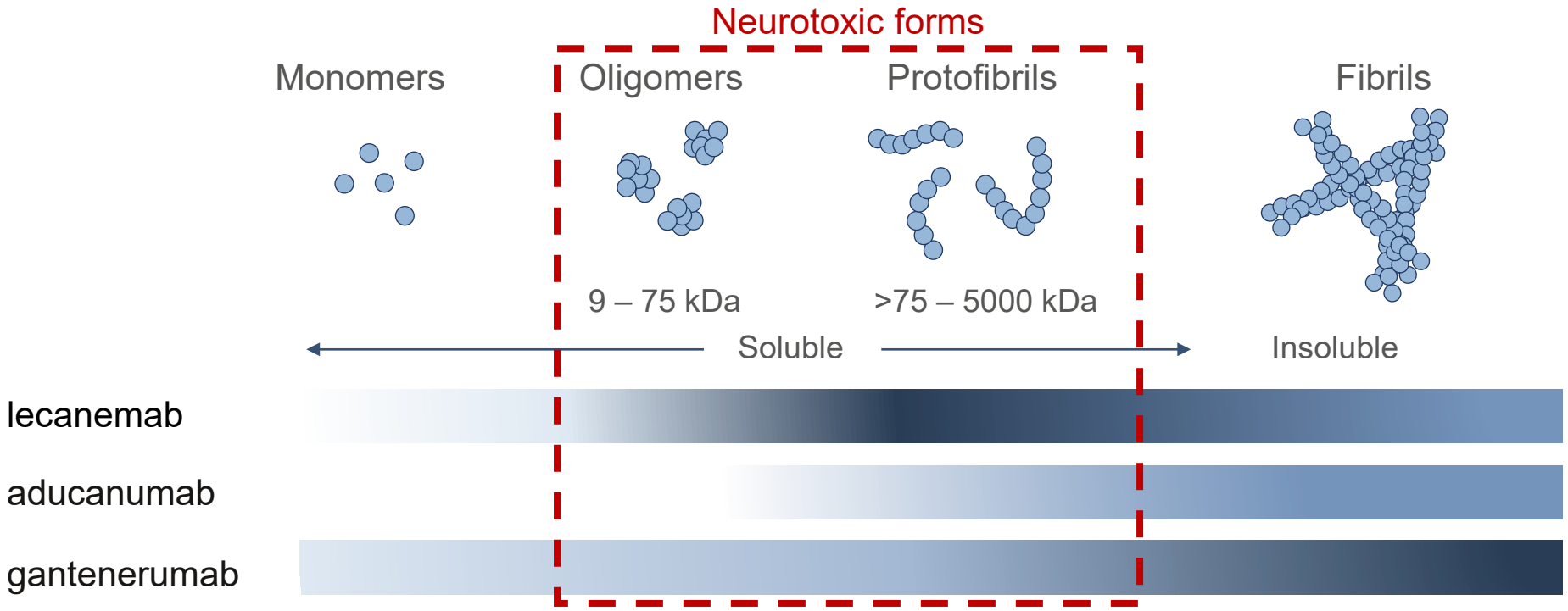
Lecanemab – unique selectivity towards toxic soluble species of Aβ

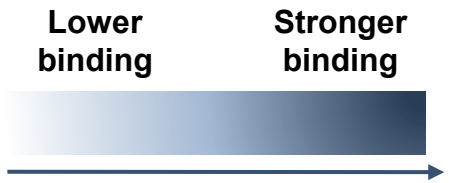


Lecanemab had the highest preference for soluble protofibrils/oligomers versus monomeric and fibrillar forms of Aβ

Aducanumab and gantenerumab had a preferences for the insoluble fibrils

Aducanumab showed a lower binding to all Aβ species

Gantenerumab had somewhat higher binding to monomers and prefers fibrils



Source: Presented at CTAD 2021. Note: Illustration is based on data from Biacore, inhibition ELISA and immunoprecipitation

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