

BIOARCTIC AB (PUBL)
NASDAQ STOCKHOLM: BIOA B

Redeye CNS Seminar

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Gunilla Osswald, PhD, CEO



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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 BSEK 1 (MUSD $\approx 110^1$) in cash, **net profitable** during seven of the last eight years and **valuable collaboration agreements** totaling BSEK 8.9² (BUSD ~ 1) plus royalties

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) (<i>Clarity AD</i>)	Eisai ¹	Early Alzheimer's disease ³				
	Lecanemab (BAN2401) (<i>AHEAD 3-45</i>)	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						
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 June 30, 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

Long-standing and extensive partnerships

Alzheimer's disease

Partner track record

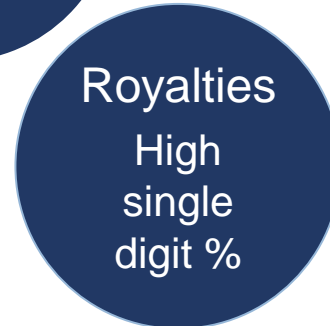
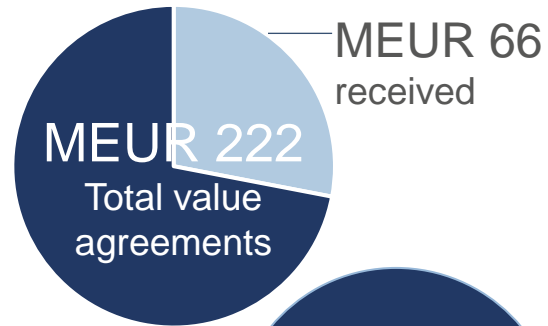


Discovered and developed world's best-selling medicine for symptoms in Alzheimer's



Industry-leading pipeline in dementia area

Collaboration and license



- BioArctic retains rights to lecanemab in other indications and option to market in the Nordics

Parkinson's disease

Partner track record



World's all-time best-selling medicine (BUSD 20)

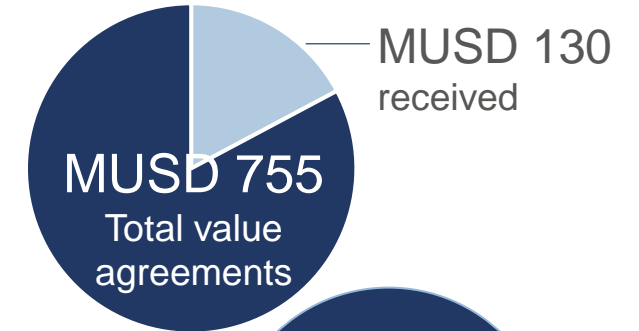


10 different indications in immunology

Approved product for symptoms associated with Parkinson's disease



Collaboration and license



- AbbVie global rights to alpha-synuclein portfolio for all indications

Sources: Eisai, AbbVie and BioArctic corporate information

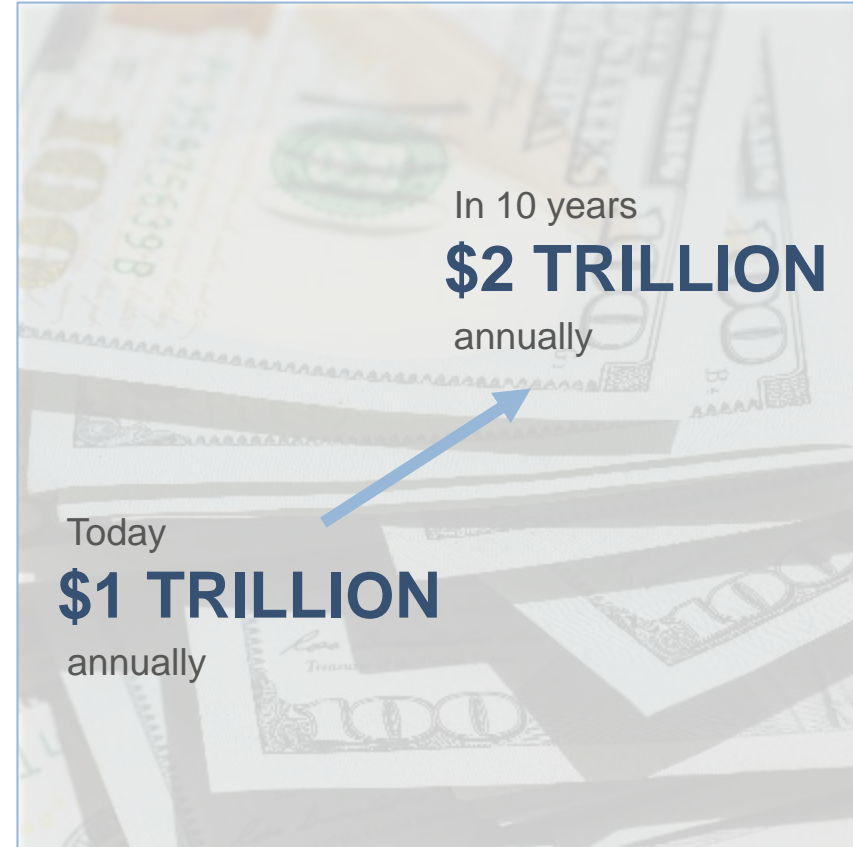
Alzheimer's disease – a global pandemic with a high unmet medical need and high costs to society

High unmet medical need

No existing disease-modifying treatment

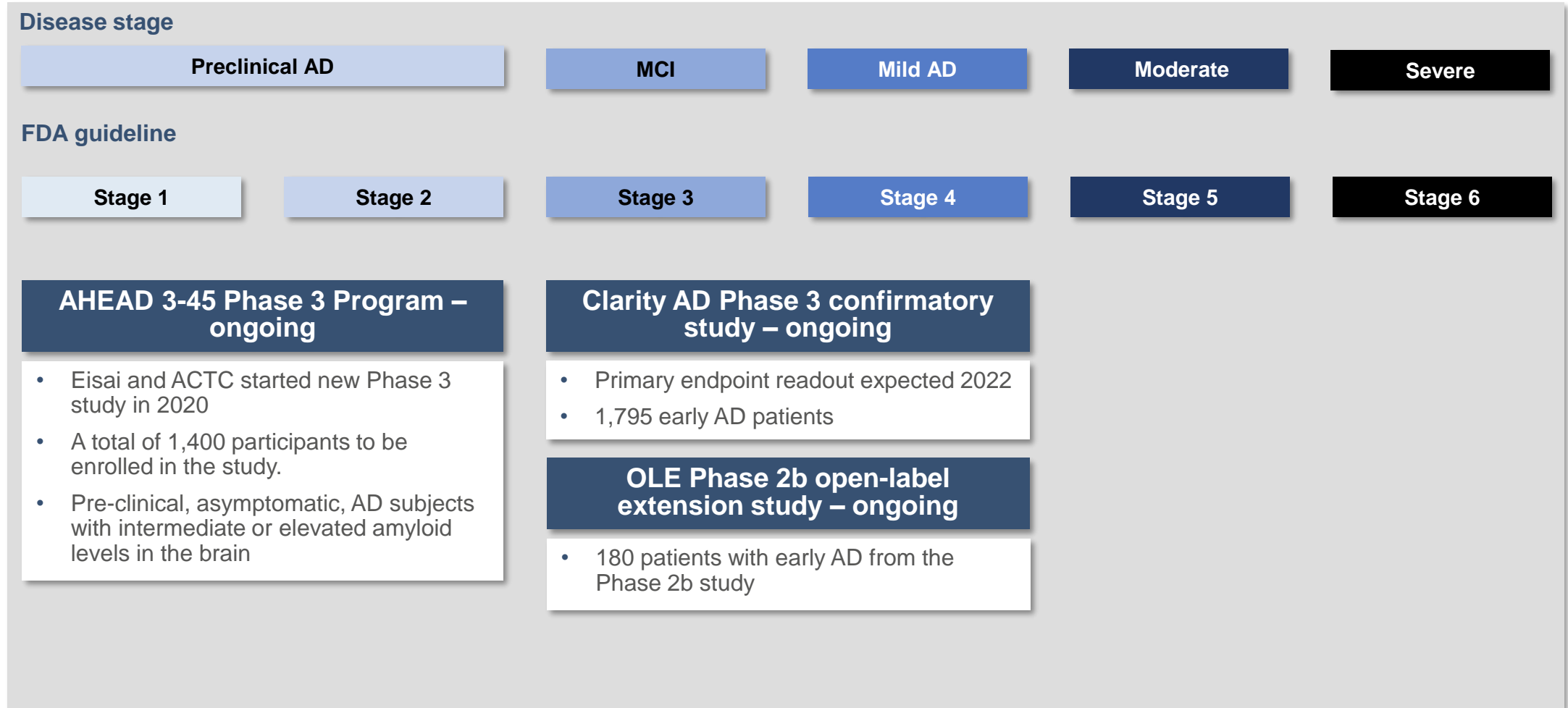


High cost to society

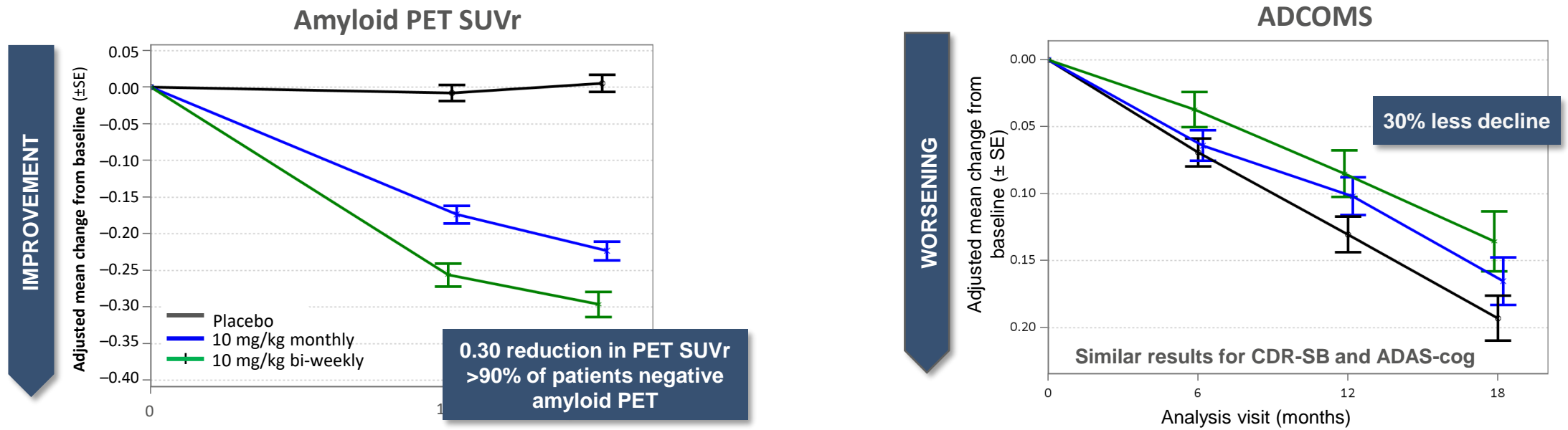


Sources: WHO, <https://www.who.int/news-room/fact-sheets/detail/dementia>

Broad lecanemab clinical program – driven by BioArctic’s partner Eisai



Lecanemab: potential disease modifying antibody for Alzheimer's disease with positive Phase 2b results



Lecanemab has positive Phase 2b results


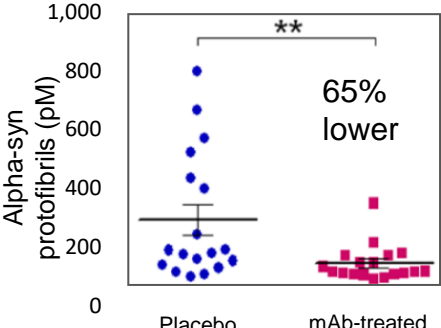
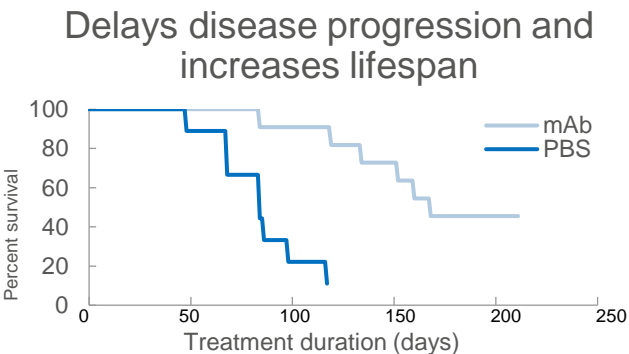
- **Large trial:** 856 early Alzheimer's patients
- **Consistent effects** on clinical outcomes, imaging and neurodegenerative biomarkers
- **Rapid onset** of clinical effect
- **Effect increases over time**
- **Good safety profile** – no titration required due to low frequency of ARIA-E (<10%)

Eisai has agreed with the US FDA to initiate a rolling BLA submission under the accelerated approval pathway for lecanemab for early AD

- In June 2021 the FDA granted **Breakthrough Therapy designation** for lecanemab in Alzheimer's disease
- Eisai has interacted with the FDA to seek the **most optimal regulatory pathway** and has agreed with the FDA to submit the BLA for lecanemab as a **rolling submission**
- Eisai is utilizing the **accelerated approval pathway** after discussion with the FDA
- The BLA submission for lecanemab is primarily based on
 - the results from the Phase 2b study in 856 early AD patients with confirmed amyloid pathology,
 - the Open label extension study with 180 patients all receiving lecanemab 10mg/kg biweekly, and
 - blinded safety data from Clarity AD.
- The Phase 3 Clarity AD study in 1795 early AD patients **can serve as the confirmatory study to verify the clinical benefit** of lecanemab.



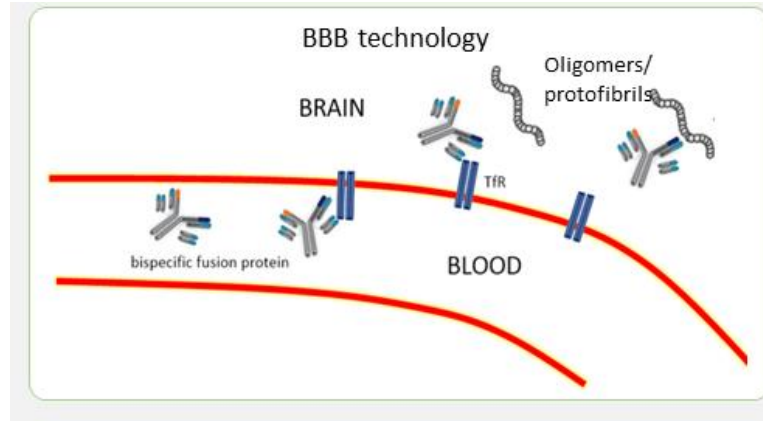
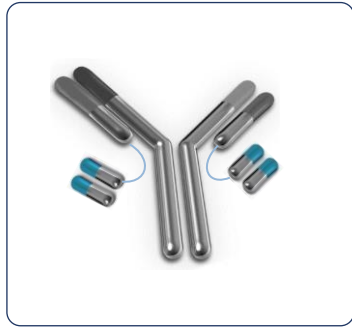
ABBV-0805: potential disease modifying antibody for Parkinson's disease – in Phase 1 preparing for Phase 2

High unmet medical need	Unique profile	Preclinical proof of concept
<p>No existing disease-modifying treatment</p>  <p>Younger patient group, still at working age</p> <p>TODAY >6 million¹ people with Parkinson's</p>	<p>Unique and targeted binding profile</p> <ul style="list-style-type: none"> Highly selective (>100.000) for pathologic forms of misfolded alpha-synuclein (oligomers/protofibrils) vs physiologic forms (monomers) <p>Built on genetic and pathology rationale</p> <ul style="list-style-type: none"> Alpha-synuclein mutations lead to Parkinson's Alpha-synuclein oligomers/protofibrils are elevated in Parkinson's 	<p>Reduction of neurotoxic alpha-synuclein oligomers/protofibrils</p>  <p>Delays disease progression and increases lifespan</p> 

Phase 1 results presented at MDS congress in Sept 2022 support Phase 2 development with dosing once a month

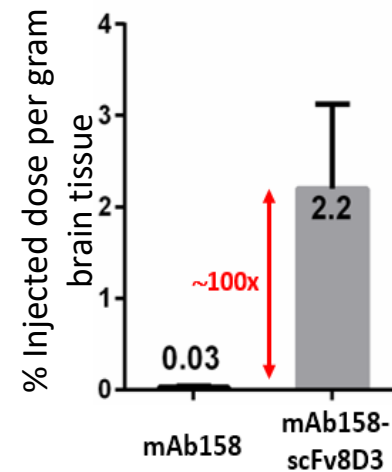
1) Dorsey and Bloem, JAMA Neurology 2018;75:9-10

Blood-brain barrier transporter technology platform potential across multiple diseases with promising preclinical results

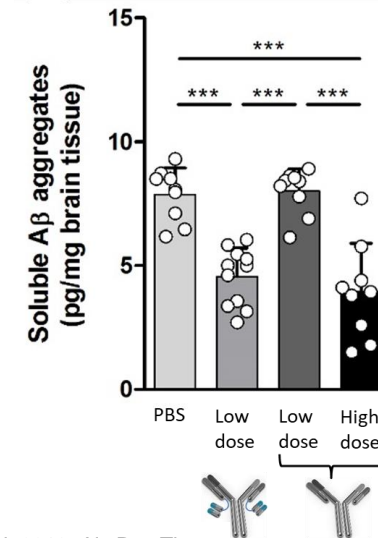


- Development of multi-specific antibodies with a transporter to facilitate passage across the blood brain barrier
- Collaboration with Uppsala University with a grant from Sweden's Innovation Agency, Vinnova
- Further investment in our Brain Transporter technology incl. recruitment of Distinguished Scientist Peo Freskgård and other senior scientists
- 2nd generation Brain Transporter platform under development

Substantially increased antibody brain uptake by BioArctic's Brain Transporter technology



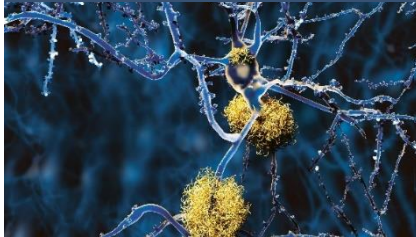
Hultqvist et al 2017, Theranostics.



Syvänen et al. 2018, Alz Res Ther

Early-stage portfolio continues to develop well

Alzheimer's disease



Discovery stage programs

- Expanded early-stage portfolio with 2 new AD+BT projects
- 6 fully-owned disease modifying antibody projects in Alzheimer's disease
- BAN2401 back-up in collaboration with Eisai

Parkinson's disease

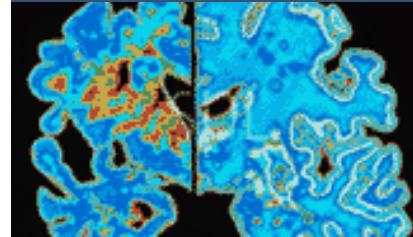


Discovery stage projects

- Preclinical stage alpha-synuclein projects in research collaboration with

abbvie

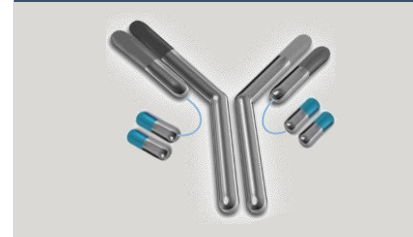
Other CNS disorders



Neurodegeneration research

- Lecanemab in indications other than Alzheimer's disease
- Research project in neurodegeneration ("ND") with potential in various CNS disorders

Blood-brain barrier



Brain Transporter (BT)

- Continued development of our Brain Transporter (BT) technology platform
- Collaboration with Uppsala University under Vinnova grant

Diagnostics



Diagnostics

- Continued development of imaging and biochemical biomarkers

BioArctic has a strong financial profile

- Listed on Nasdaq Stockholm Mid Cap, market capitalization of BSEK 12.1 (~1.4 BUSD)¹



- Close to BSEK 1.0 (110 MUSD) in cash

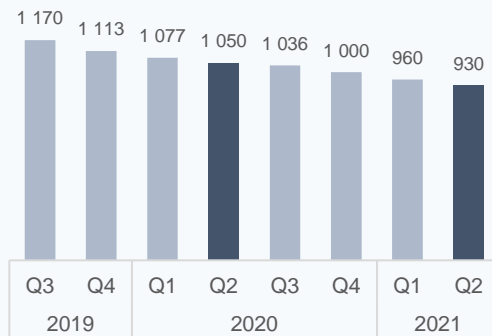


- Expected 2021 operating costs 170-200 MSEK

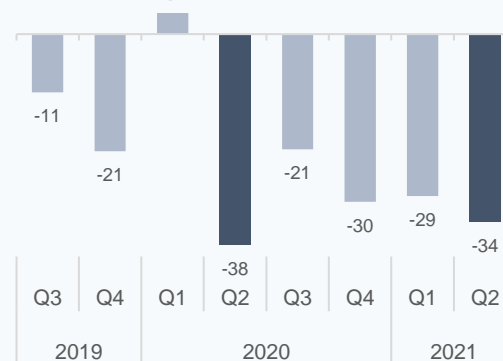


- Significant funding from partner research collaborations and license agreements, as well as grants
- Total potential collaboration deal value¹ of ~SEKbn 8.9 (~1 BUSD)¹ of which ~SEKbn 1.8 (~0.2 BUSD)¹ received
- Additional future royalty potential
- Milestone payments one-time nature explain fluctuations in financial results

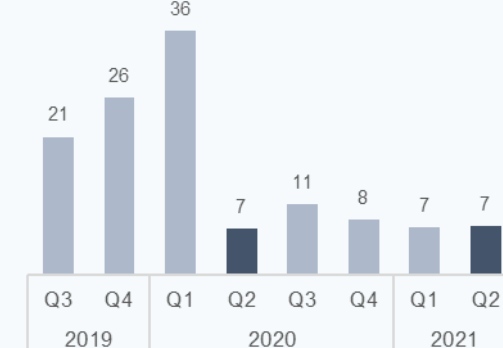
Cash Balance (MSEK)



Operating Profit/Loss (MSEK)



Net Revenues (MSEK)



1) As of June 30, 2021

Upcoming news flow

Alzheimer's disease



Lecanemab (Eisai)

- Data presented at international congresses
- Phase 3 confirmatory study in early AD results 2022
- Phase 2b open label extension study results
- Phase 3 study in preclinical asymptomatic AD

Discovery stage programs

- Advance into preclinical development

Parkinson's disease



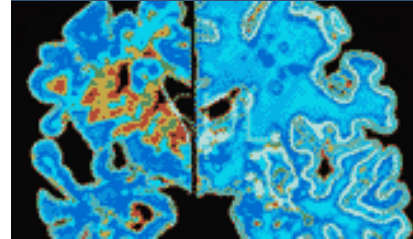
ABBV-0805 (AbbVie)

- Complete Phase 1 and start Phase 2
- Data presented at international congresses

Discovery stage projects

- Development in AbbVie collaboration

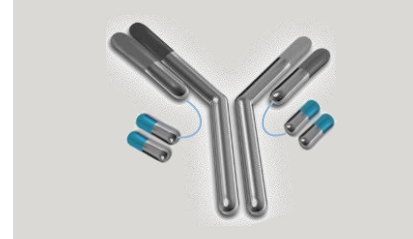
Other CNS disorders



Neurodegeneration research

- New project development
- New indications and new targets

Blood-brain barrier



Brain Transporter (BT) technology platform

- Continue development of platform

Diagnostics

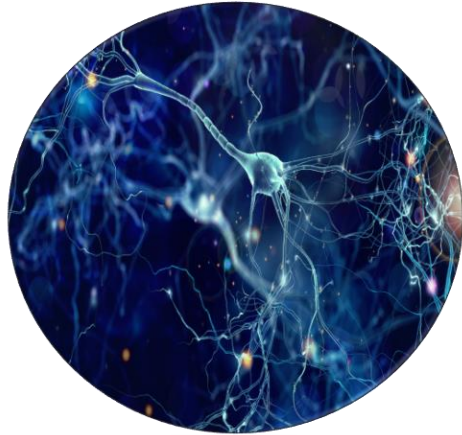


Diagnostics

- Continue development of imaging and biochemical biomarkers

BioArctic: With Patients in Mind

Great science



Great projects



Great partners



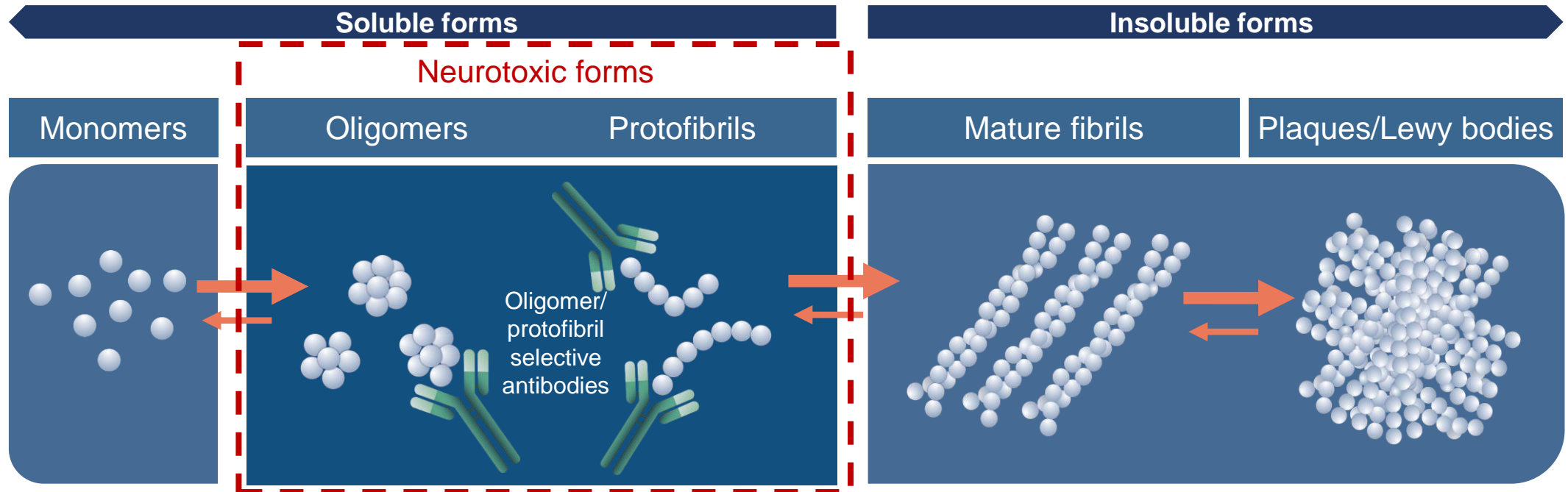
Great people



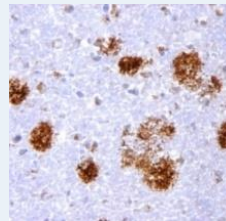
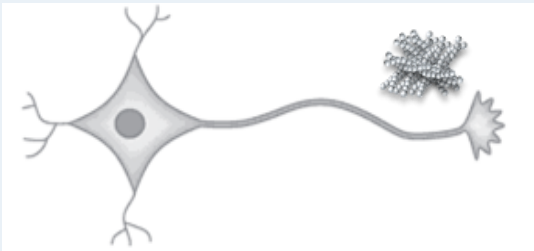
Back up slides



Targeting neurotoxic forms of aggregated misfolded proteins is important when designing therapies for neurodegenerative diseases



Alzheimer's disease: misfolded amyloid beta results in amyloid plaques



Parkinson's disease: misfolded alpha-synuclein results in Lewy Bodies

