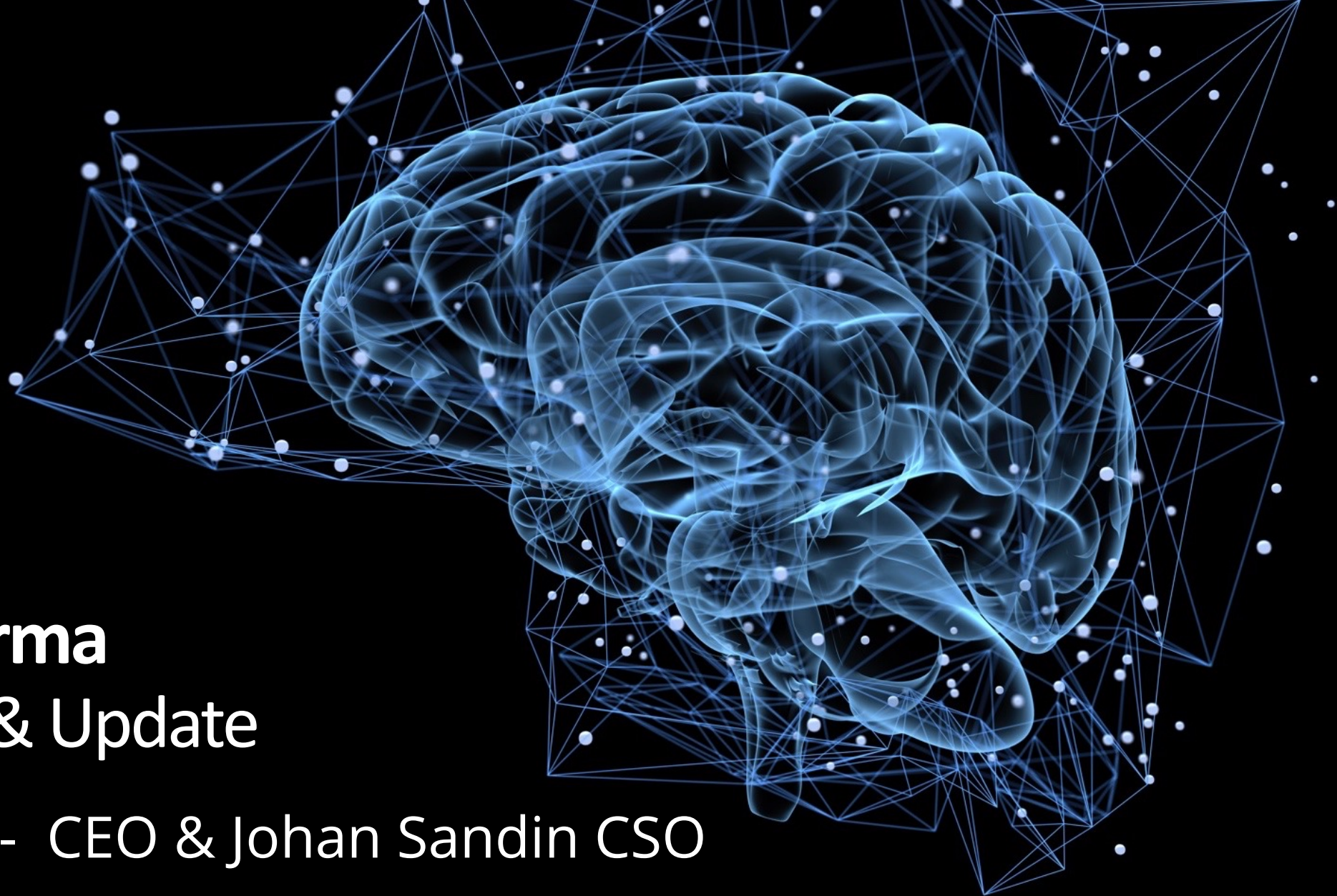


December 2, 2021



# **AlzeCure Pharma**

## **- Introduction & Update**

Martin Jönsson - CEO & Johan Sandin CSO

# Agenda

- Who we are
- Focus areas
- Pipeline & the science
  - Progress & goals for 2022



# AlzeCure Pharma

- Working in **Alzheimer's Disease (AD)** and **Pain** – multi-billion markets / great unmet medical need
- Founded in **2016**, out of a research foundation sponsored by Alzheimerfonden
- **Experienced team** with extensive background within Pharma industry
- Based at Novum Science Park, **Karolinska Institute**, Stockholm, Sweden
- Three project platforms with multiple **small molecule** candidates
  - **NeuroRestore®** - A novel first-in-class symptomatic treatment for cognitive disorders, e.g. AD
  - **Alzstatin®** – An innovative disease-modifying treatment for AD
  - **Painless** – Innovative projects for osteoarthritic and neuropathic pain
- Listed on **Nasdaq First North Premier** Growth Market since Nov. 2018 (Ticker: ALZCUR)
- Market cap: **SEK 245m** (Nov 30, 2021)
- Cash position: **SEK 63m** (Q3 2021 report)



# Our Business Model

- We are a **Research & Development** company
- Research & **develop through early clinical phase** and then **to out-license** or partner on our projects
- Gain incomes through:
  - **Upfront payments**
  - **Milestone payments**
  - **Royalties** on sold products





# Small molecule drugs – AlzeCure’s approach for increased success

## DIFFERENCES BETWEEN SMALL MOLECULES & BIOLOGICS\*

**SMALL MOLECULE  
DRUG**

**LARGE BIOLOGIC**

**AlzeCure focus**



**Small molecule drug**



**Monoclonal antibody**  
c. 25,000 atoms

**Smaller molecules can have increased likelihood of  
penetrating the Blood Brain Barrier**

# A pipeline of small-molecule programs

– Multiple candidates increase chance of success

Platform	Candidate	Indication	Research phase	Preclinical phase	Phase I	Phase II	Phase III
NeuroRestore®	ACD856	Alzheimer's Disease, Sleep disorders, Traumatic brain injuries Parkinson's disease				Ongoing <b>Fully funded Ph I study</b>	
	ACD857	Alzheimer's Disease					
Alzstatin®	ACD679	Alzheimer's Disease					
	ACD680	Alzheimer's Disease					
PainLess	ACD440	Neuropathic Pain				Finalized & positive read-out <b>Preparing for phase II filing</b>	
	TrkA-NAM	Osteoarthritic Pain & other severe pain conditions					

Phase completed

Phase ongoing



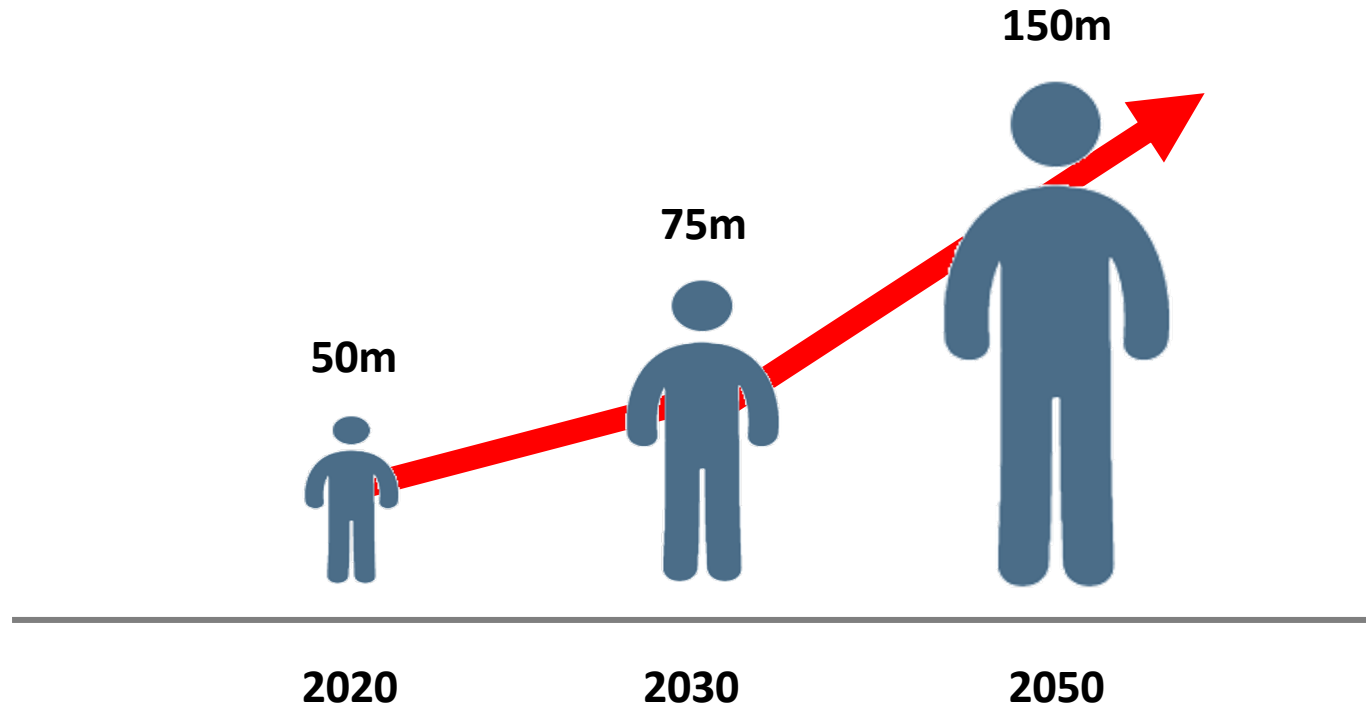
# Our primary Focus area

## Alzheimer's Disease

- Costs the society more than **oncology and cardiovascular diseases** TOGETHER
- The **patient population and costs** will TRIPLE in the next 30 years



## Tripling patient population – due to the aging population



- **50 million** people worldwide live with dementia ...
- ... and **doubling every 20 years**
- Alzheimer's accounts for 60 - 70% of all dementia cases



# Alzheimer's Disease - Progressive & lethal disorder with lack of available therapies

Pre-symptomatic Alzheimer's  
*10 - 20 years prior to symptoms*

Symptomatic Alzheimer's  
*7 - 10 years life expectancy*



- In Pre-symptomatic Alzheimer's, **A $\beta$  amyloid pathology & plack** is building up in the brain but there are no clinical symptoms
- There are no preventive treatments for this stage of Alzheimer's

- The stage includes **dying neurons in the brain** which leads to **speech problems, memory loss and dementia**, and symptoms start manifesting



*Sales: > US\$ 2bn/year*

No drugs available

Very few drugs available - *associated with low efficacy and severe side effects*

**HUGE UNMET MEDICAL NEED IN BOTH CATEGORIES**





# Enormous market potential

US sales

**\$17 billion**

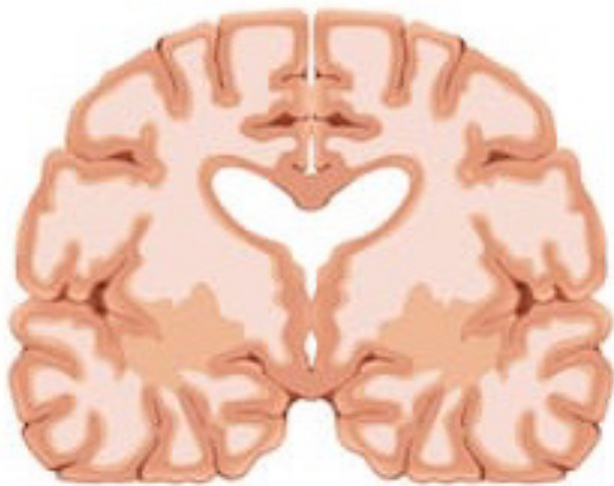


Aduhelm® (aducanumab) projected annual sales **if only 5% of the Alzheimer's patients are treated** with the product.\*

=> 2<sup>nd</sup> biggest selling product in the US.

\*) Nature, June 8, 2021; Landmark Alzheimer's drug Approval..."

# Progression of Alzheimer's Disease



Healthy Brain



Mild Alzheimer's Disease\*

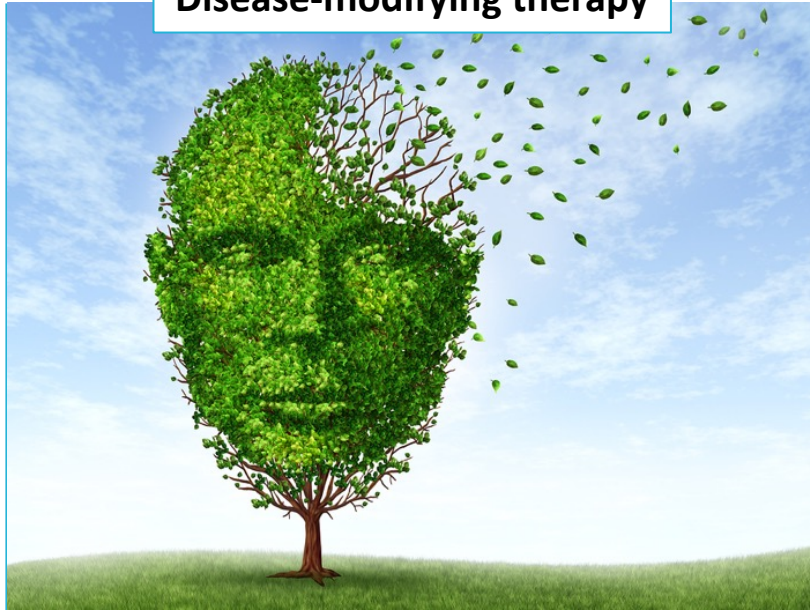
AlzeCure work to preserve the healthy brain

\*) Indication of Aduhelm® (aducanumab)

## Two Alzheimer's platforms - 1st-in-class properties & potential game-changers

TARGET TWO KEY AREAS WITH A HIGH UNMET MEDICAL NEED

Disease-modifying therapy



**Alzstatin<sup>®</sup>**

*Targeting Amyloid Production*

- Novel Oral Small Molecule

Symptomatic therapy



**NeuroRestore<sup>®</sup>**

*Improving Neuronal Function*

- Novel Oral Small Molecule

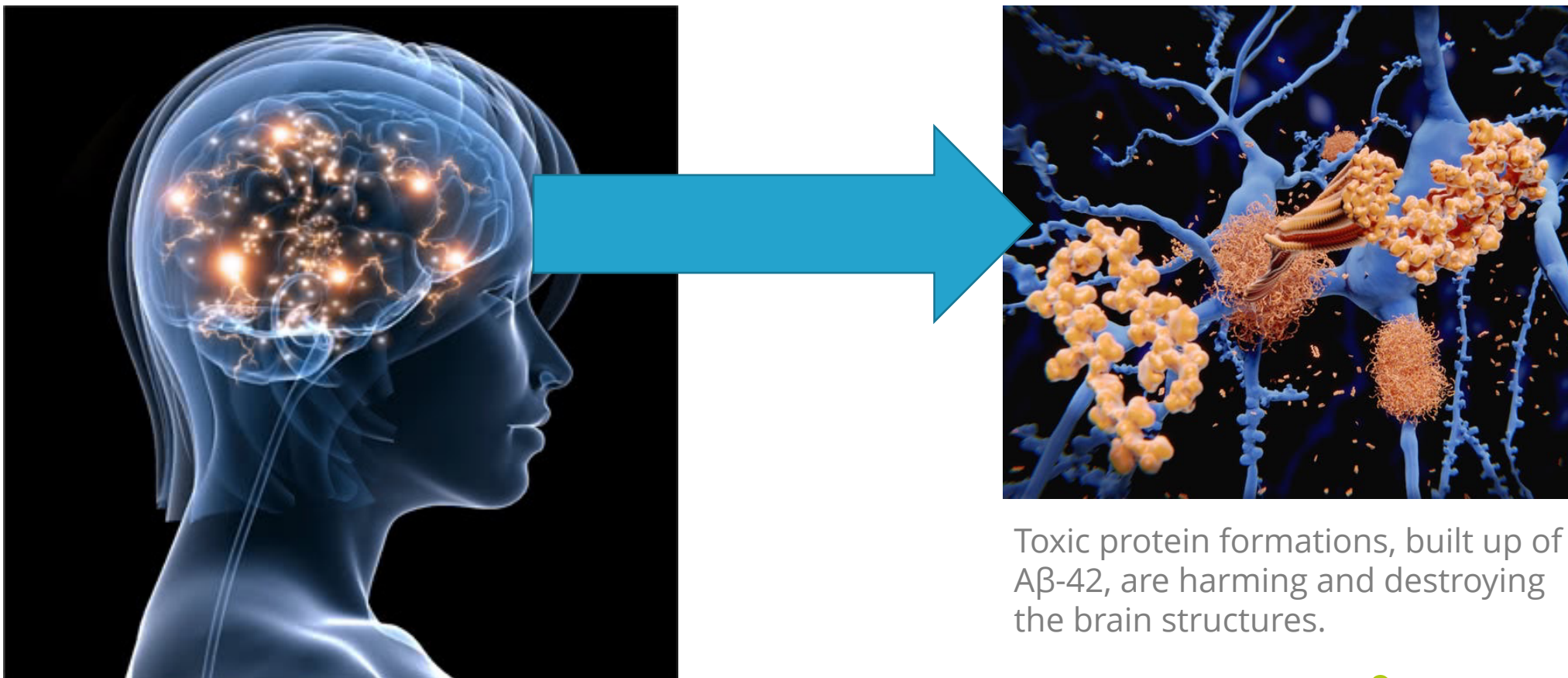
**Alzstatin<sup>®</sup>**

- A Disease Modifier against Alzheimer's



## The Alzheimer's brain and its destruction

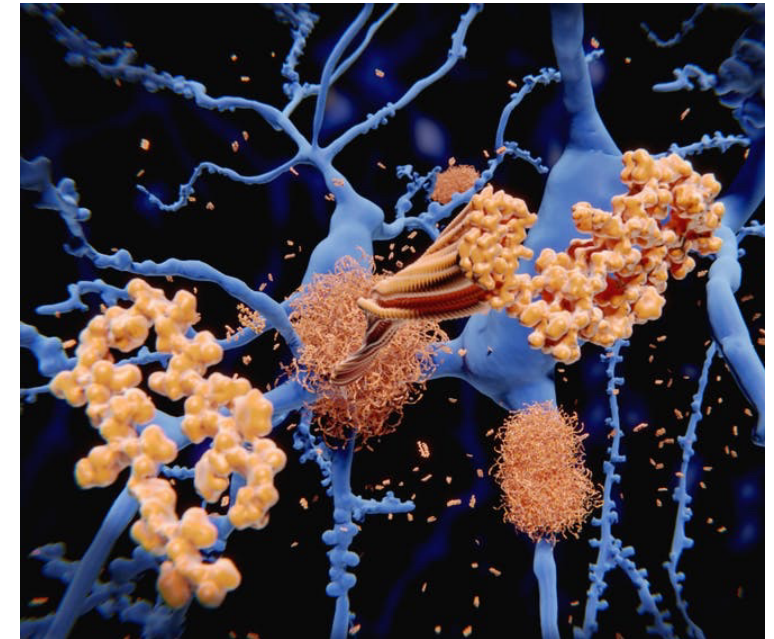
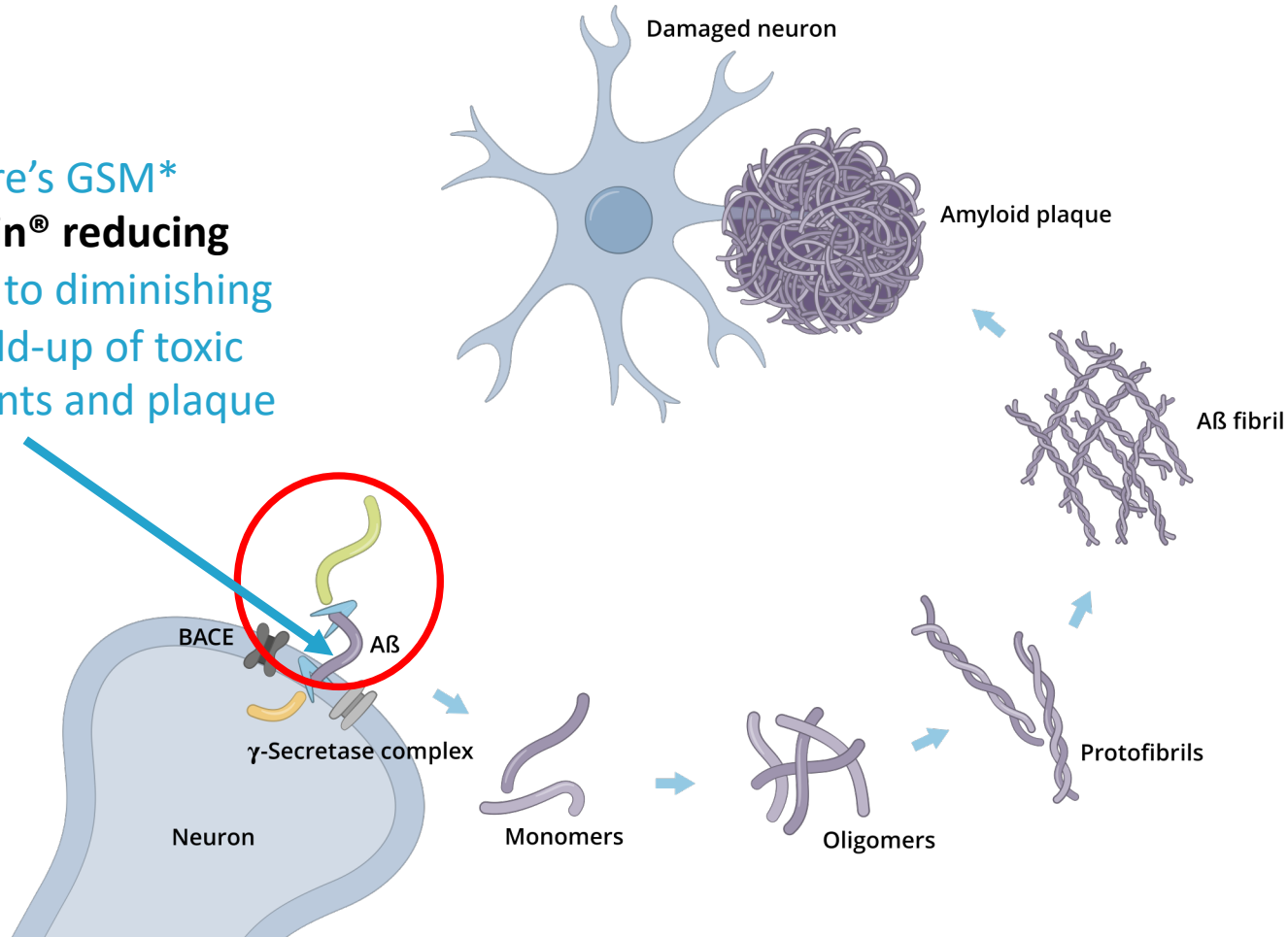
Toxic protein formations – A $\beta$ -42 amyloid pathology & plaque – are harming and destroying the brain. The formation process is called the Amyloid Cascade



Toxic protein formations, built up of A $\beta$ -42, are harming and destroying the brain structures.

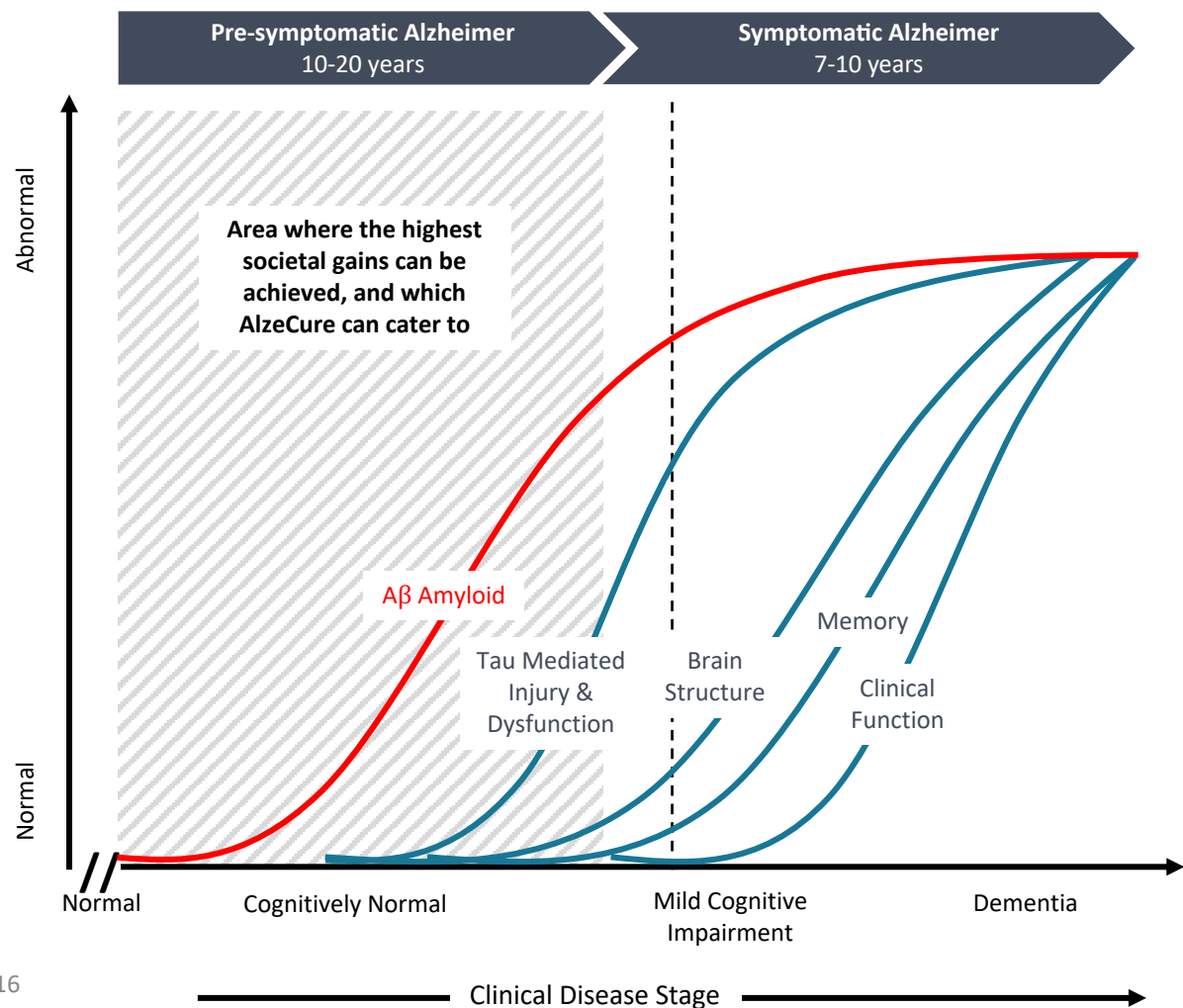
## The Amyloid Cascade - Generating toxic and damaging fragments, including plaques, destroying neurons and brain structures

AlzeCure's GSM\*  
**Alzstatin®** reducing  
 $A\beta$  -42 to diminishing  
the build-up of toxic  
fragments and plaque

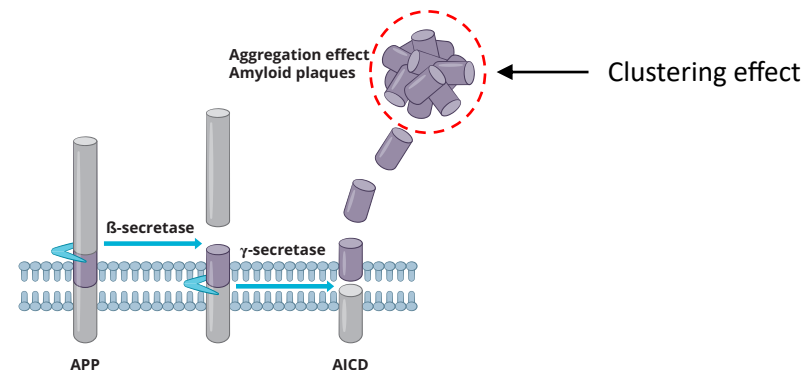


# Alzheimer's Disease Modifier – Preventing or delay disease progression

## ALZHEIMER'S DISEASE PROGRESSION

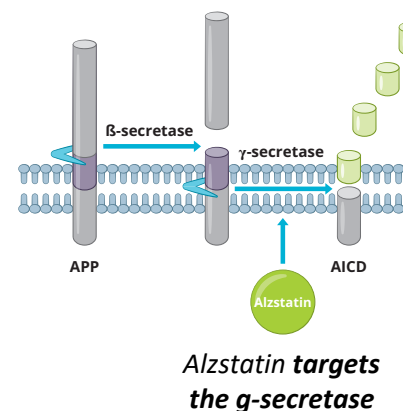


Aβ -42 - main culprit in Alzheimer progression



found a way to limit Aβ-42 clustering

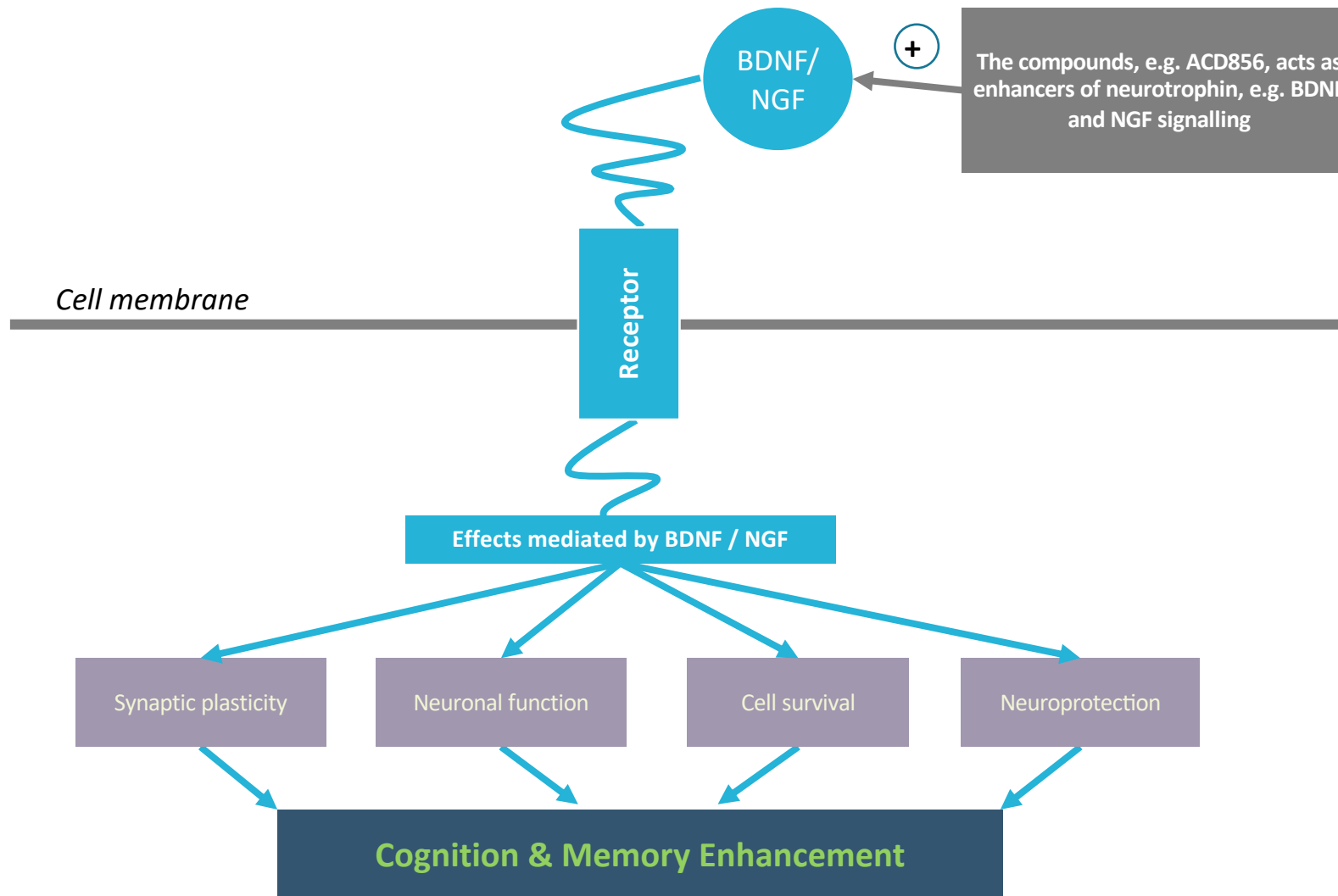
**Alzstatin modulates the enzyme and thereby limits the clustering effect**



# NeuroRestore<sup>®</sup>

- A cognitive enhancer

## NeuroRestore® enhances neuronal function & cognitive capabilities



- AlzeCure's compounds act as **enhancers of neurotrophin, e.g. BDNF/NGF signalling**, and the broad effect profile in this specific biological pathway **implies multiple possible indications**, including Alzheimer's disease, but also e.g. Parkinson's disease, Traumatic Brain injury and Sleep disorders.



# NeuroRestore - a Cognitive Enhancer Improving Learning & Memory

Stages of memory



NeuroRestore has in pre-clinical models shown that it can improve the ability to **learn** and **remember** information, so it's accurately recollected when needed.

## Our second Focus area

### Chronic Pain

- Suicide due to chronic pain is as common as due to depression
- Most common cause for sick leaves, creating misery & high societal costs
- Opioid crisis in the US - is huge & reversing the mean average lifespan of Americans



**Huge need** for more efficacious and safer treatments

## Our platform PAINLESS – Targeting unmet medical needs within pain



### Osteoarthritis & severe pain conditions

> 300 million patients

Project: TrkA-NAM



### Neuropathic pain\*

600 million patients

Project: ACD440



## **Professor David Julius**

### Nobel prize medicine laureate 2021

University of California, San Francisco, USA

Prize motivation: ... for the discoveries of receptor (TRPV1) for temperature and touch.

The identification of and knowledge about the TRPV1\* receptor is central for the mediation of neuropathic pain, which 7-8% of the adult population is affected by. AlzeCure Pharma is developing a TRPV1 antagonist, which now is in clinical phase, for treatment of this pain condition.

\* ) TRPV1 = Transient Receptor Potential Vanilloid 1  
<https://www.nobelprize.org/prizes/medicine/2021/summary/>





## ACD440 – Novel TRPV1 antagonist in clinical phase for neuropathic pain

### PROJECT OVERVIEW

#### Emanates from Big Pharma

- › Approximately SEK 200m spent on project development
- › **Mode of action confirmed** in several Phase 1 clinical trials
- › Synthesized compound and formulation developed



#### VR1 – optimized for local delivery

- › The vanilloid receptor subtype 1 (TRPV1) is expressed in nociceptive sensory neurons
- › TRPV1 is upregulated in the skin of patients with neuropathic pain
- › **Strong scientific support** for peripheral/local treatment with TRPV1 antagonists

#### Phase 1b trial fully funded

- › The trial was fully funded with existing funds
- › **Trial** with topical formulation has now **ended**
- › Phase 1b study addressed **both tolerability & efficacy – POSITIVE OUTCOMES**

Now preparing **filling for a phase II clinical trial**



## Neuropathic pain - Fast growing market

- The most valuable segment within the pain indications
- Poorly served patients
- Huge demand for better drugs

2020  
**\$11 billions**

CAGR to 2027  
**12.9% => \$25 billions**

The Neuropathic Pain market was valued at \$10,8 billion in 2020 globally and is forecast to reach \$25,2 billions by 2027, at a Compound Annual Growth Rate (CAGR) of 12,9%

## TrkA-NAM – none-opioid treatment of severe pain conditions

### Attractive Target population

E.g. **osteoarthritis** in patients who have experienced insufficient pain relief from 1st line standard of care or unacceptable side effects

### Clinical validation

Mechanism with **strong validation** – step-changing clinical efficacy with novel anti-NGF mAbs - sets the standard for future therapies

### Blockbuster opportunities

**Blockbuster opportunities** for NGF therapies that would avoid adverse events and allow non parenteral routes of administration



### Differentiation factors for TrkA-NAM

- › **TrkA selective MoA** vs anti-NGF antibodies also targeting p75 signaling
  - › *Maintain **potent clinical efficacy***
  - › *Improved side-effect profile*
- › Convenient **oral administration** - small molecule compound
- › **No addiction** compared to opioids

## Key milestones & activities for 2022

- ☐ **Start** of clinical phase 2a study **Painless ACD440** in neuropathic pain
- ☐ **Read-out** of clinical 1a MAD study **NeuroRestore® ACD856** for AD
- ☐ **Start NeuroRestore® ACD856** 1b signal detection clinical study
- ☐ **Advance** our **Painless TrkA-NAM** towards clinical candidates
- ☐ **Progress Alzstatin ACD680** into pre-clinical safety testing

## Key investment highlights in AlzeCure



Targeting areas of **huge unmet medical needs**



**Strong team** with extensive experience and track record



**Platforms with first-in-class properties** and potential **game-changers**



**Parallel investments** in several candidates and potent **follow-up programs**




**Multi-billion dollar** market **opportunities**



Evolving into a **phase II company**



The image is a composite. In the foreground, a pair of hands holds a realistic anatomical model of a human brain, split open to reveal internal structures like the ventricles and brainstem. The background is a blurred laboratory setting with various glassware and equipment. Overlaid on the left side is a semi-transparent, glowing blue image of a single neuron with its cell body and branching dendrites and axon.

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