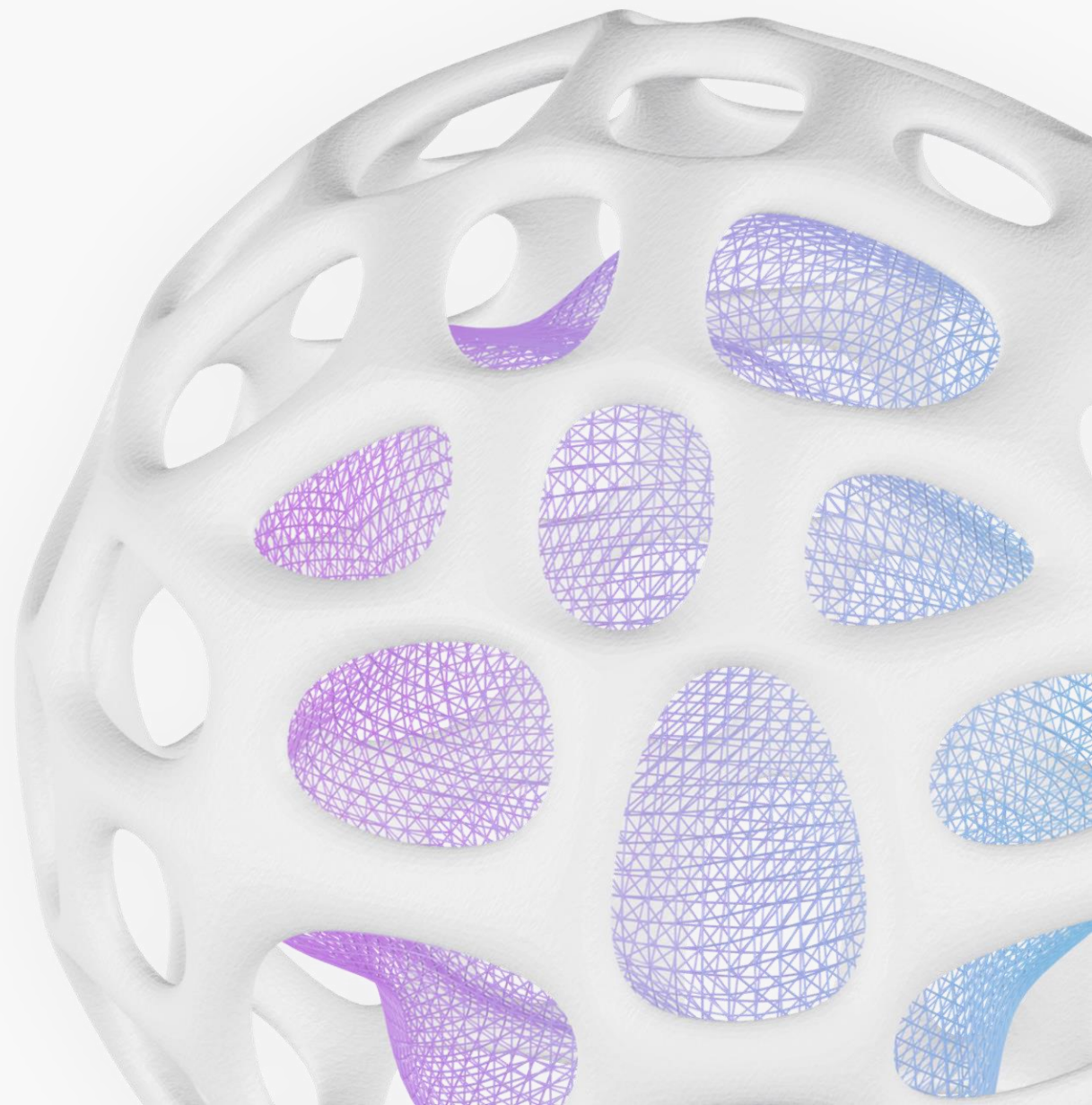


**GERO**

**Curing root causes  
of chronic diseases  
and making aging  
a history**



# Gero PTE. LTD., Singapore, founded in 2018



## Mission

To make humans non-aging species



## Immediate goal

Clinical validation of the platform



## Clinical trial starts in 2024

Senolytic small-molecule against a rare CNS disease



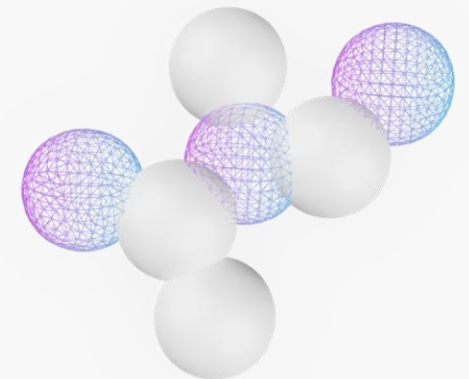
## Differentiation

Bias-free, human data-driven target & drug discovery technology powered by physics of complex systems \*



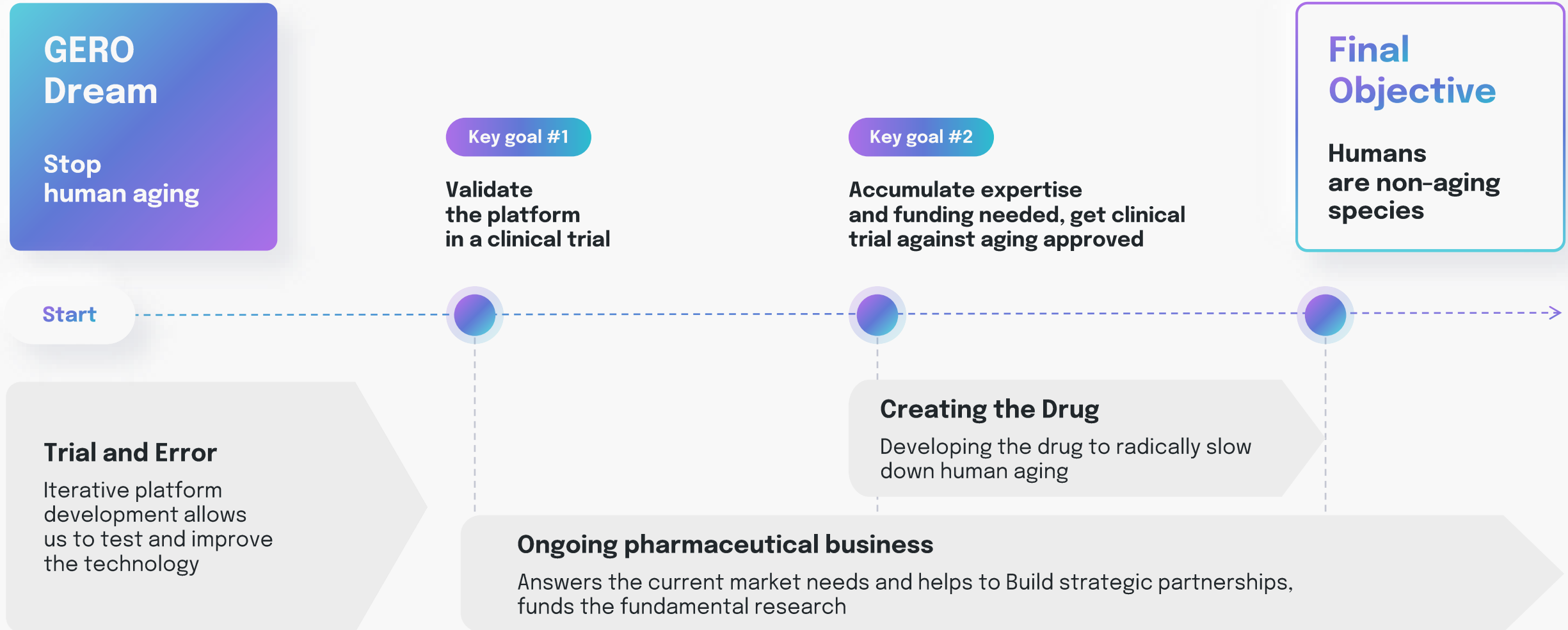
## Technology

AI-enabled target and drug discovery platform built on principles borrowed from the physics of complex systems



\* proprietary **True Aging** allowing to stop human aging itself

# How to fund a dream?



# To achieve our goal, we discovered and quantified the nature behind human aging

**Our discovery:** there are two aging phenotypes in humans

## Senescence




Late-life phenotype




Can be directly studied in mice



Can be reversed 



Up to 10 years of healthspan 

**Longevity industry is here**

## True Aging



Whole-life phenotype



Cannot be directly studied in mice



Thermodynamically irreversible, but can be stopped

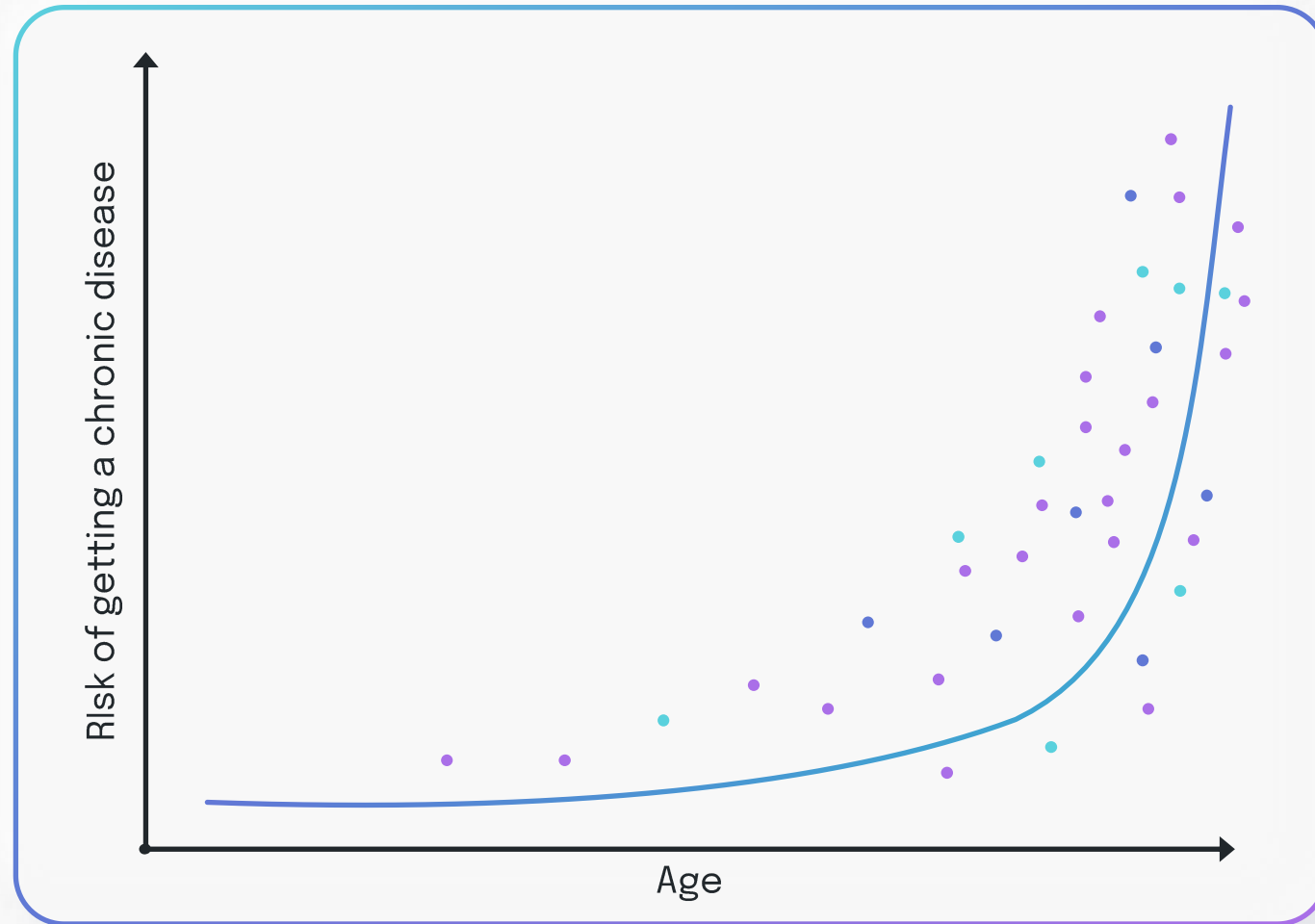


Drastic extension of healthspan and lifespan, >150 years



**Gero is here**

# Irreversible nature of True Aging hinders drug discovery against chronic diseases.



## Disease clusters (baskets)

 **Cluster 1**

 **Cluster 2**

 **Cluster 3**

We regress-out True Aging as a confounding factor to reveal clusters of chronic diseases having the same underlying biology

# Fractal: in-human target & drug discovery platform



We use AI originating from the physics of complex systems and real-world human data to reduce complexity of human biology and create drugs against chronic diseases in data-driven way overcoming the publication bias

 **10,000**  
Diseases

 **20,000**  
Genes

**Fractal  
Platform**

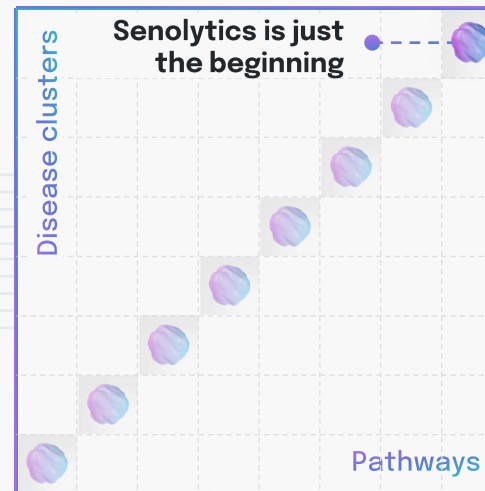
Narrows down complexity to:

**~25**

Disease clusters

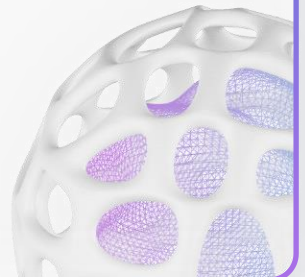
**~25**

Pathways



GERO discovers which genetic pathways need to be modified to cure a deep root cause of a whole disease cluster at once

**First-in-class  
disease-modifying  
therapeutics  
against chronic  
diseases**





# Fractal: differentiation along whole **drug** development pipeline



## Discovering root causes of chronic diseases

We discover deep compartments of human health in a hypothesis-free way. This enables us to cluster diseases with the shared underlying biology and **overcome all sorts of scientific biases**



## Discovering targets to treat a root cause

The genetic study on these root causes (phenotypes) enabled by Whole-Exome Sequencing data allows us to discover novel targets **applicable to several indications simultaneously**



## Creating molecules to hit a target

GERO has state-of-the-art computer-aided **small molecule discovery expertise**. E.g. see our publication in Science Journal:

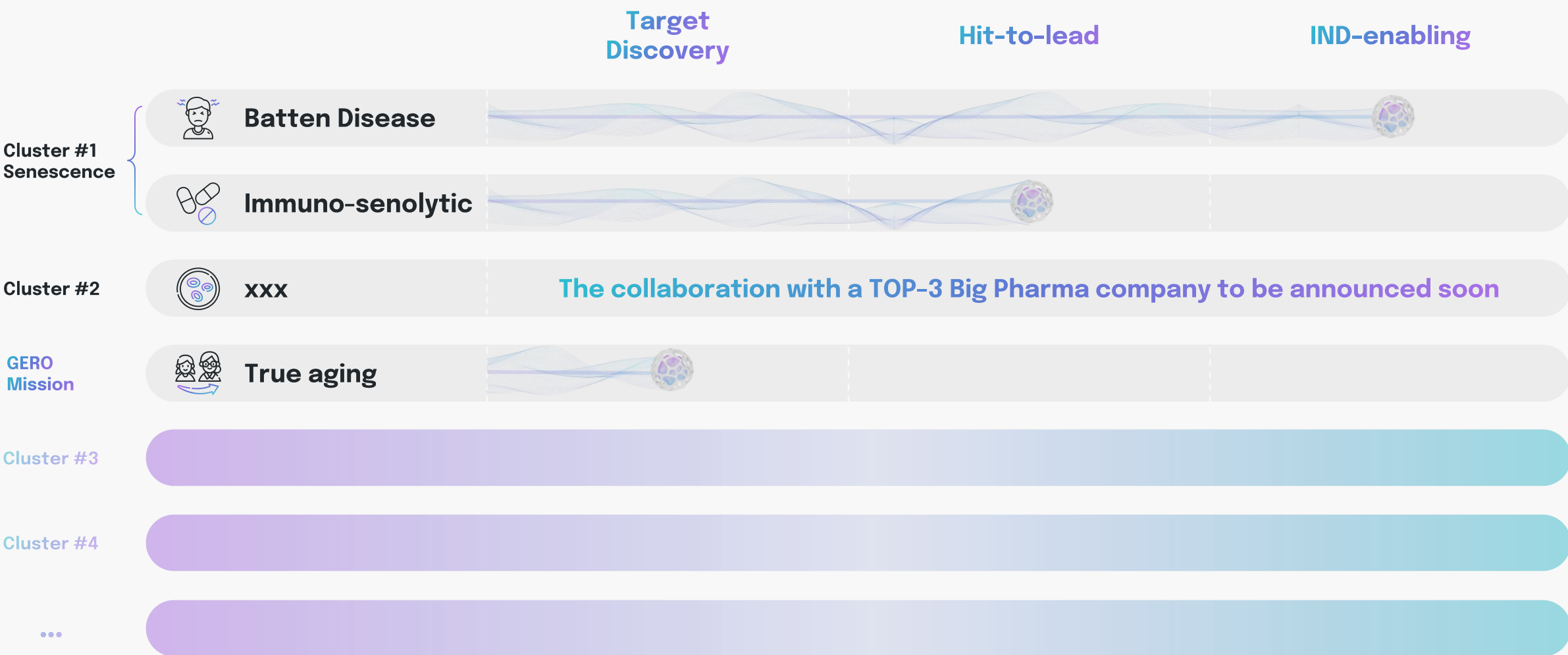
**Science** 



## Getting FDA approval

Targets are backed by clinical and genetic evidence from human biomedical data which allows to escape the “preclinical trap” and **develop drugs against human (not mice) diseases**

# Drug development pipeline



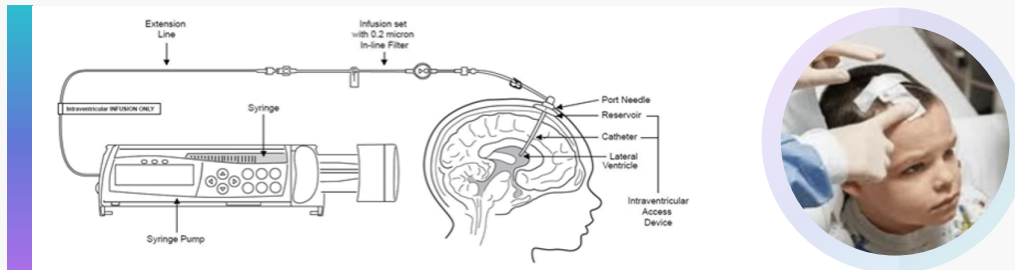


# Senolytic neuroprotector against Batten Disease: clinical trial start in 2024



## Current approach

**Applicable to only 1 of 13** forms of Batten Disease;  
Should be injected into the brain.



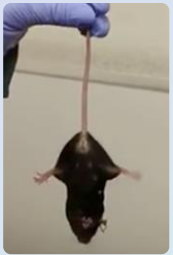
## Our solution

**Small molecule treatment** potentially capable of covering all 13 forms of the disease

CLN7, vehicle



CLN7, GD01



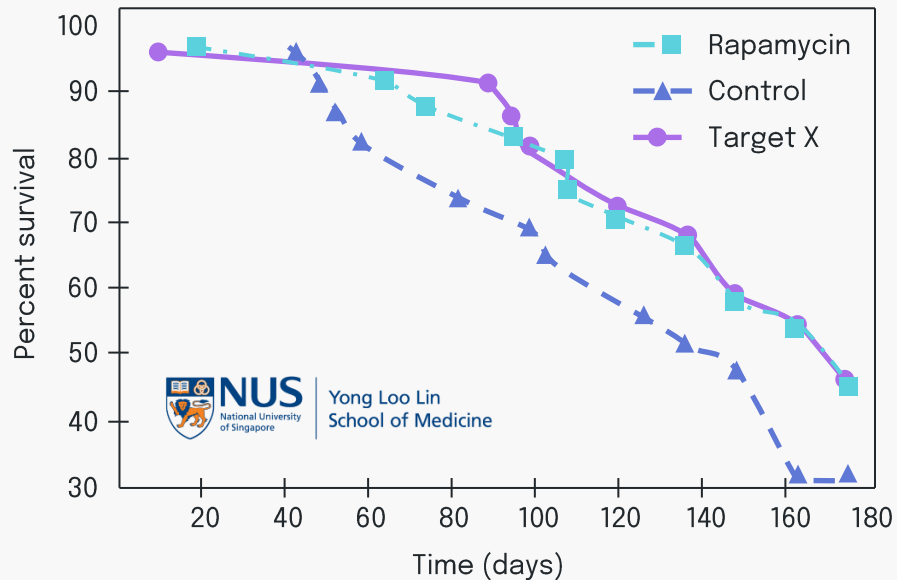
Paper is published by

**nature  
communications**

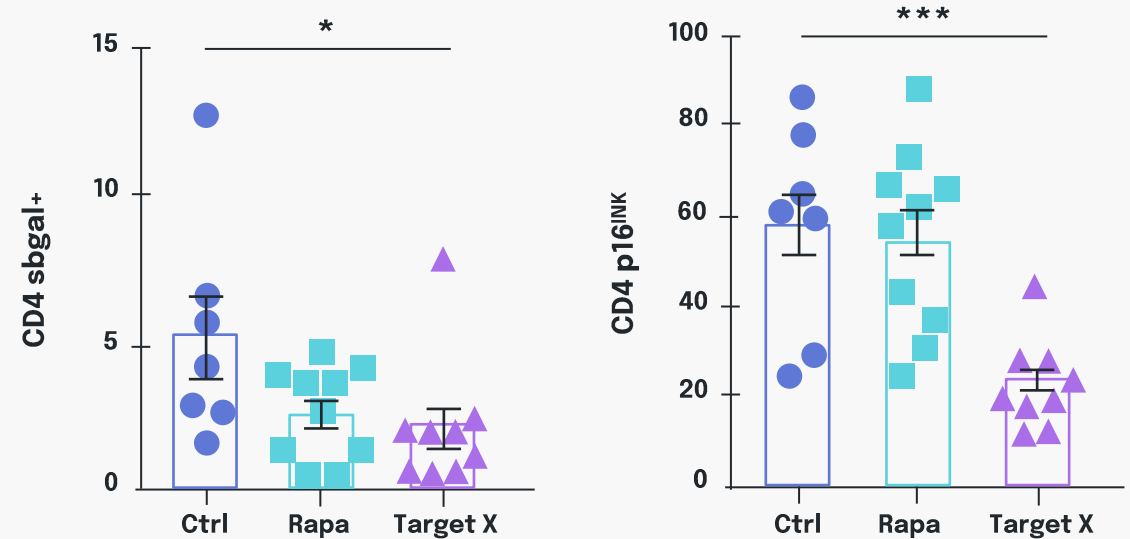
# Immuno-senolytic asset: systemic rejuvenation after a short treatment



Blocking Target X in old mice via **single injection** of an antibody resulted in the **significant improvement in lifespan and reduction of senescence markers**



Time zero = 100 week old mice



# Target-based small molecule discovery: validated by Science journal

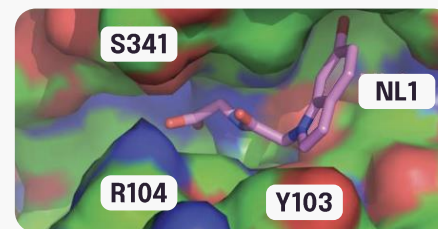
10+ years of experience  
in computationally-enabled small  
molecule discovery



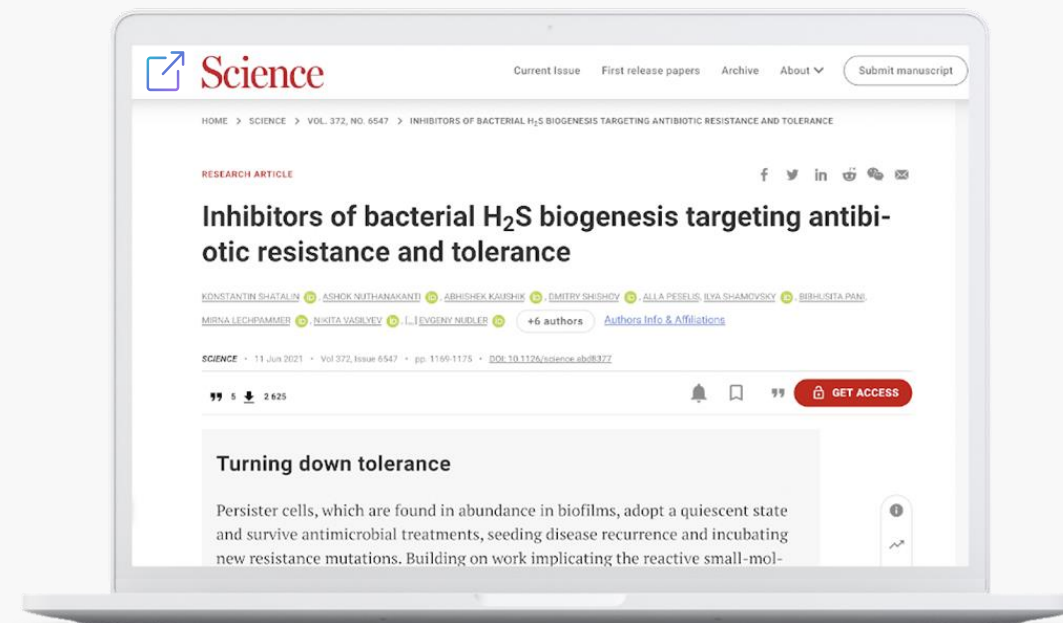
We identified a conservative non-enzymatic binding site and **produced a series of allosteric inhibitors**




We performed the optimization and **produced patentable leads**



In collaboration  
with:



# The results of our work are published in the world's most authoritative scientific journals



Our research is published in **Nature Communications and Science** journals, covered by **Scientific American**, and recognized by **Wikipedia's most significant scientific achievements 2021**



nature  
COMMUNICATIONS



Science



 eLife



nature  
COMMUNICATIONS



COMMUNICATIONS  
BIOLOGY



 frontiers



 WIKIPEDIA



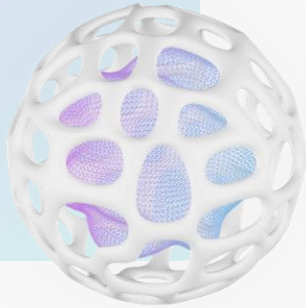
SCIENTIFIC  
AMERICAN

# Ultimately resilient core team. **We are on a mission.** For us it is personal.



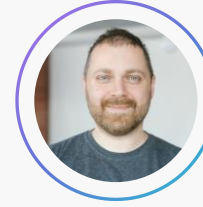
**Peter Fedichev, PhD**  
**Co-founder & CEO**

Theoretical physicist,  
10+ years in biotech,  
expert in aging research  
and drug design



**Max Kholin,**  
**Co-founder & COO**

15 years of C-level experience  
in biotech; background  
in law and finance



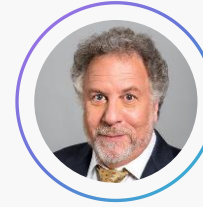
**Y. Melnichek,**  
**Executive Board  
Member**

Serial AI entrepreneur with  
multiple exits, including  
acquisition by Google



**Alex Kadet,**  
**Head of Business  
Development**

Strategy & BD executive,  
4+ years in biotech;  
background in management  
consulting



**A. L. Salzman, M.D**  
**Drug Development  
Advisor**

Founder of Inotek Pharmaceuticals,  
licensed technology to Genentech  
in a \$600 million deal and successfully  
underwent an IPO

## Well-cited scientists as collaborators

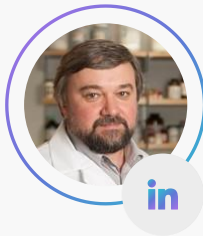


**B. Kennedy, PhD**

Distinguished Professor  
of Biochemistry and  
Physiology at NUS



Yong Loo Lin  
School of Medicine



**A. Gudkov, PhD**

Senior Vice President  
of Research Technology &  
Innovation at Roswell Park  
Cancer Center

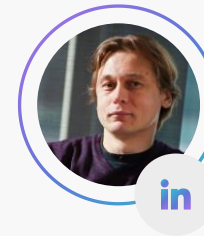


**Y. Aulchenko, PhD**

Honorary Professor  
of the University  
of Edinburgh



THE UNIVERSITY  
of EDINBURGH



**V. Gladyshev, PhD**

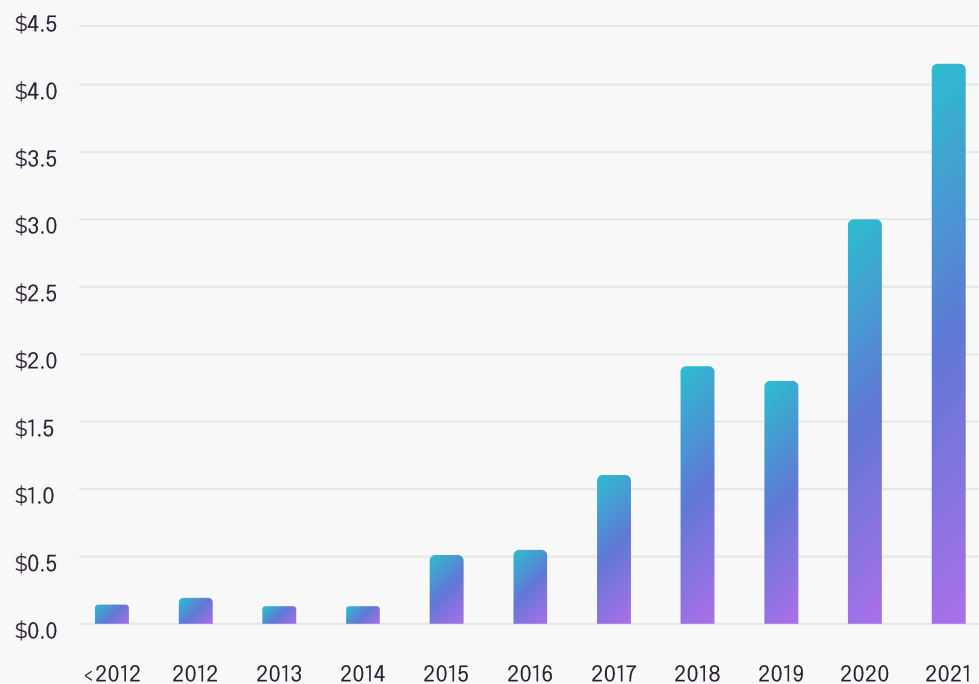
Professor of Medicine  
at Harvard Medical School






HARVARD  
MEDICAL SCHOOL

# AI in early-stage drug discovery is **rocketing**

## AI in Drug Development Market – Investment Value (\$B) per year<sup>1</sup>



Source: <sup>1</sup> [Emersion Insights](#)

Company	Deal Size	Year	Therapeutic Area	Partner
Insitro	<u>\$2 100 000 000</u>	2020	Neurology	 Bristol Myers Squibb™
Exscientia	<u>\$5 200 000 000</u>	2022	Oncology and immunology	 SANOFI
Recursion Pharmaceuticals	<u>\$12 000 000 000</u>	2021	Oncology and neurology	 Roche



NASDAQ exit  
with market  
cap

**\$4,8B**



NASDAQ exit  
with market  
cap

**\$2,9B**



**Our skin is in the game.**  
**We invite you to join**  
**the adventure**



**Alex Kadet**  
**Head of Business Development**

✉ [alex.kadet@gero.ai](mailto:alex.kadet@gero.ai)

🌐 [gero.ai](https://gero.ai)

