



International Centre for Genetic
Engineering and Biotechnology

Interreg
Italia-Österreich



Co-funded by
the European Union

PROMOS

FabCure

Transforming lifelong treatment into a one-time cure

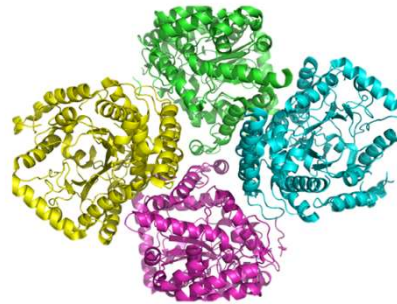
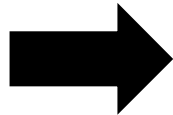
Anantha Padmanabhan S P
Researcher
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04-06-2025
Innsbruck

Fabry Disease: X-linked lysosomal storage disorder



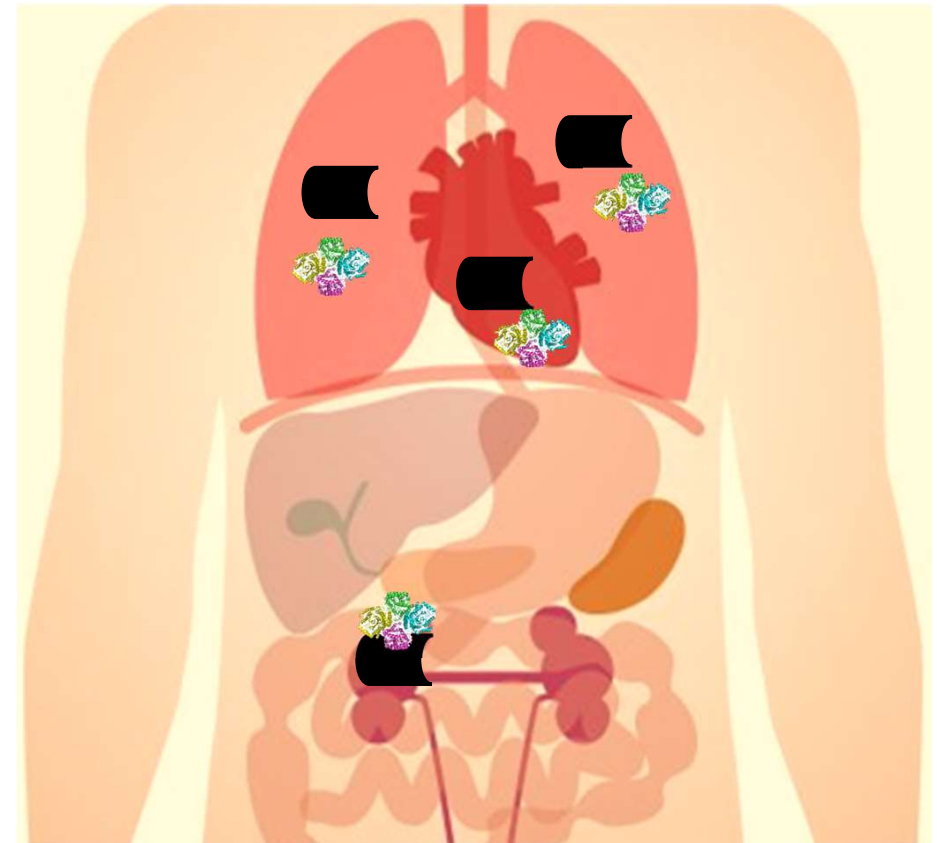
Gene



Protein (GLA)

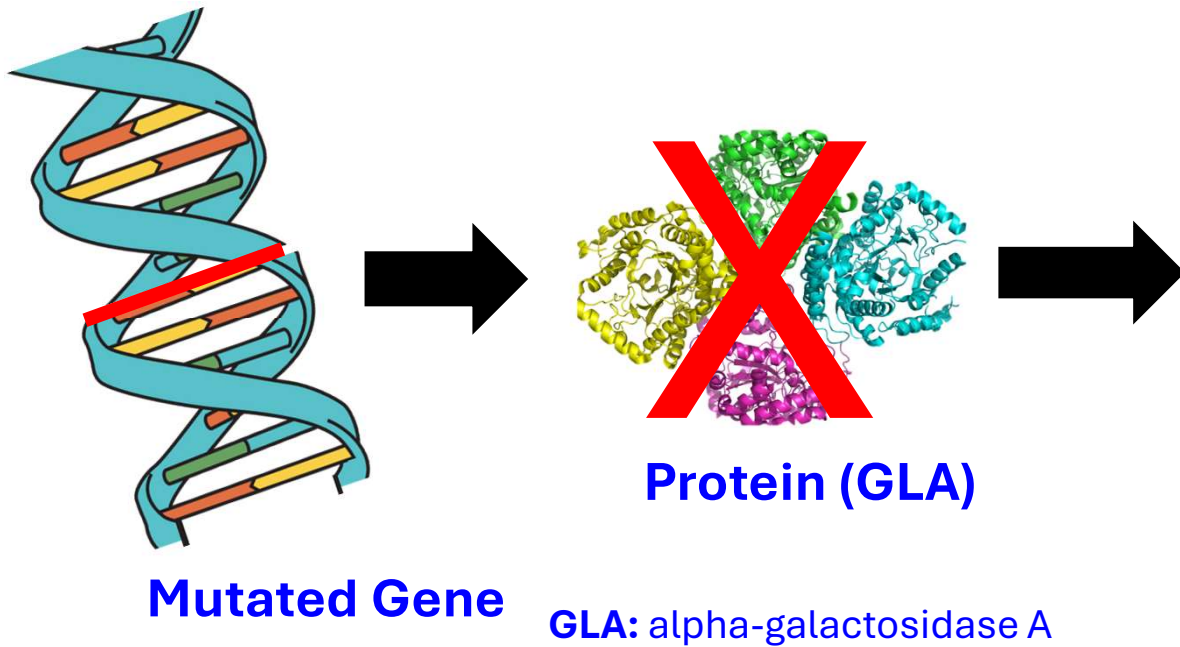


GLA: alpha-galactosidase A

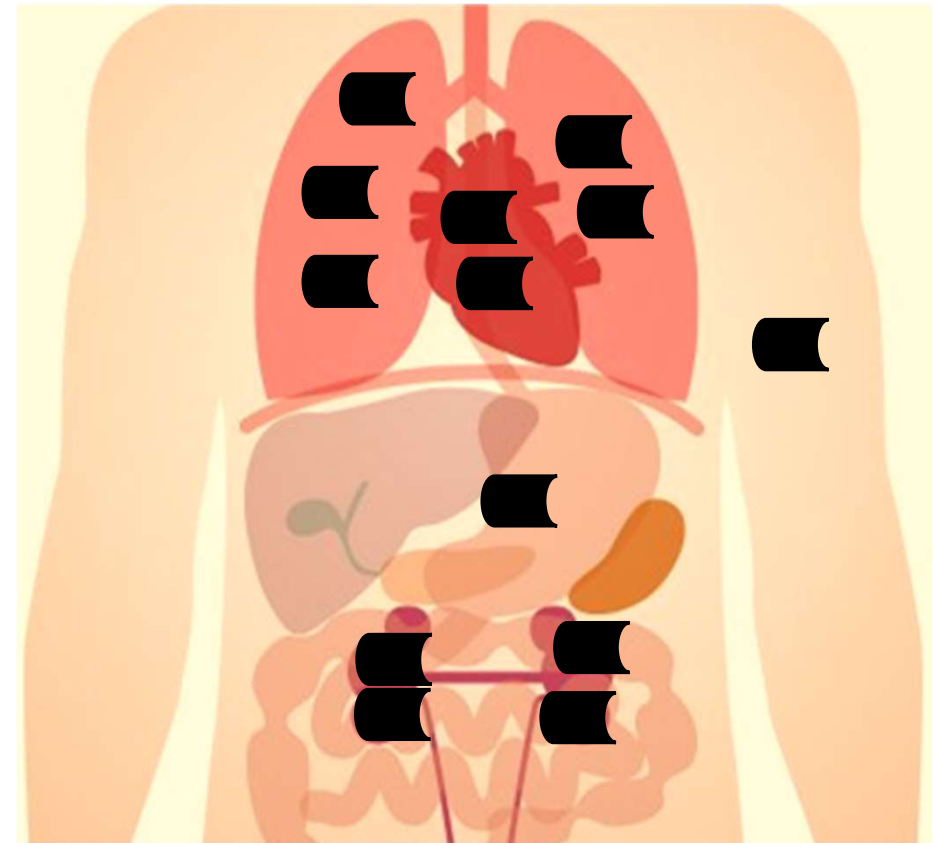


 Substrate (Globotriaosylceramide (Gb3))

Fabry Disease: X-linked lysosomal storage disorder



Affects the organs, and the patient may die in early life



 Substrate (Globotriaosylceramide (Gb3))

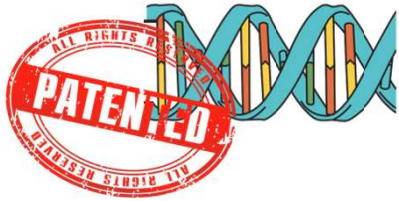


Our Solution:

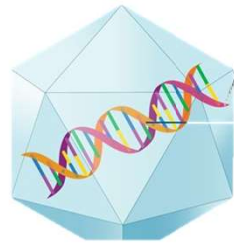
Liver-targeted single-dose gene therapy for Fabry disease.

Strategy: Liver as a bio factory

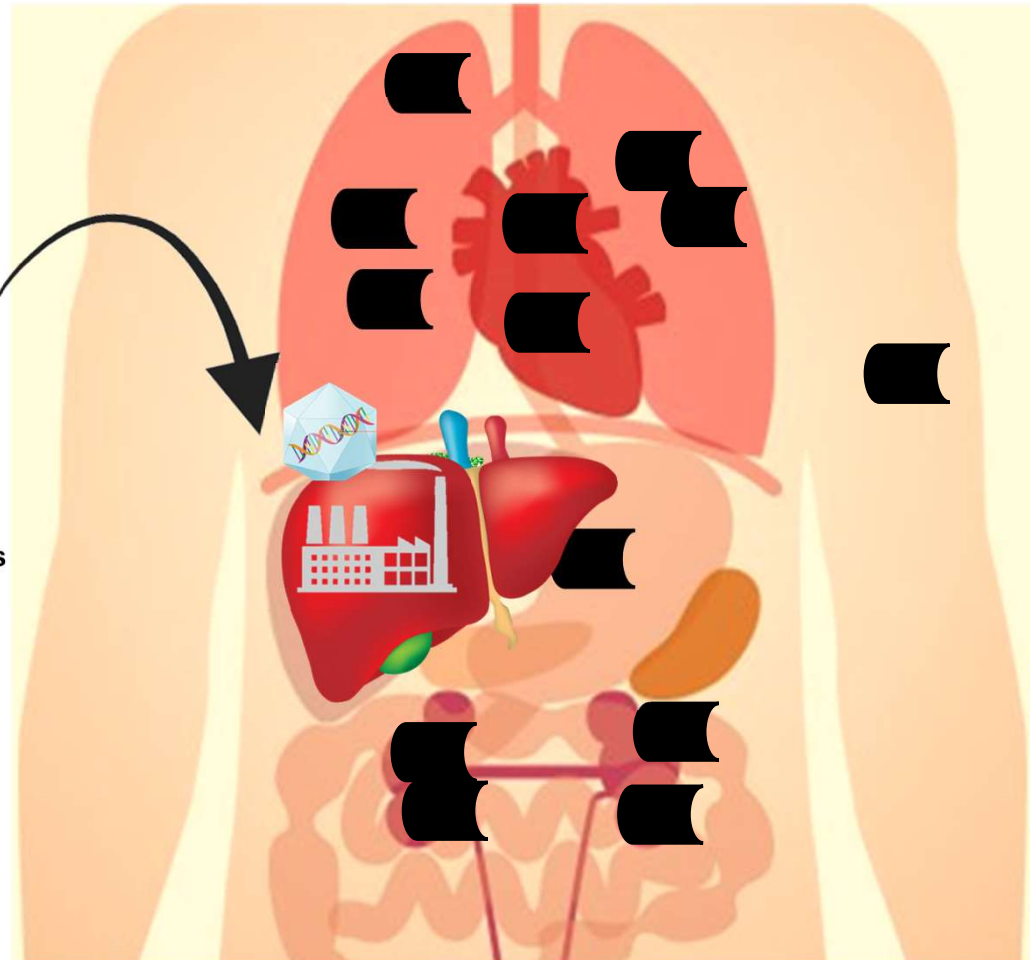
Designed Highly expressing cDNA



Patent international application No. :
PCT/EP2024/055793



Adeno-associated virus
with cDNA



Preclinical Study in a disease animal model



Long-term efficiency and Dose study



WHY?

- Cases are increasing because of the implementation of newborn screening
- Pan ethnic disease
- Incidence rates are increasing in the US, Japan, Taiwan, and the EU (Germany, France, Italy, and Spain)
- Without therapy, patients can't survive

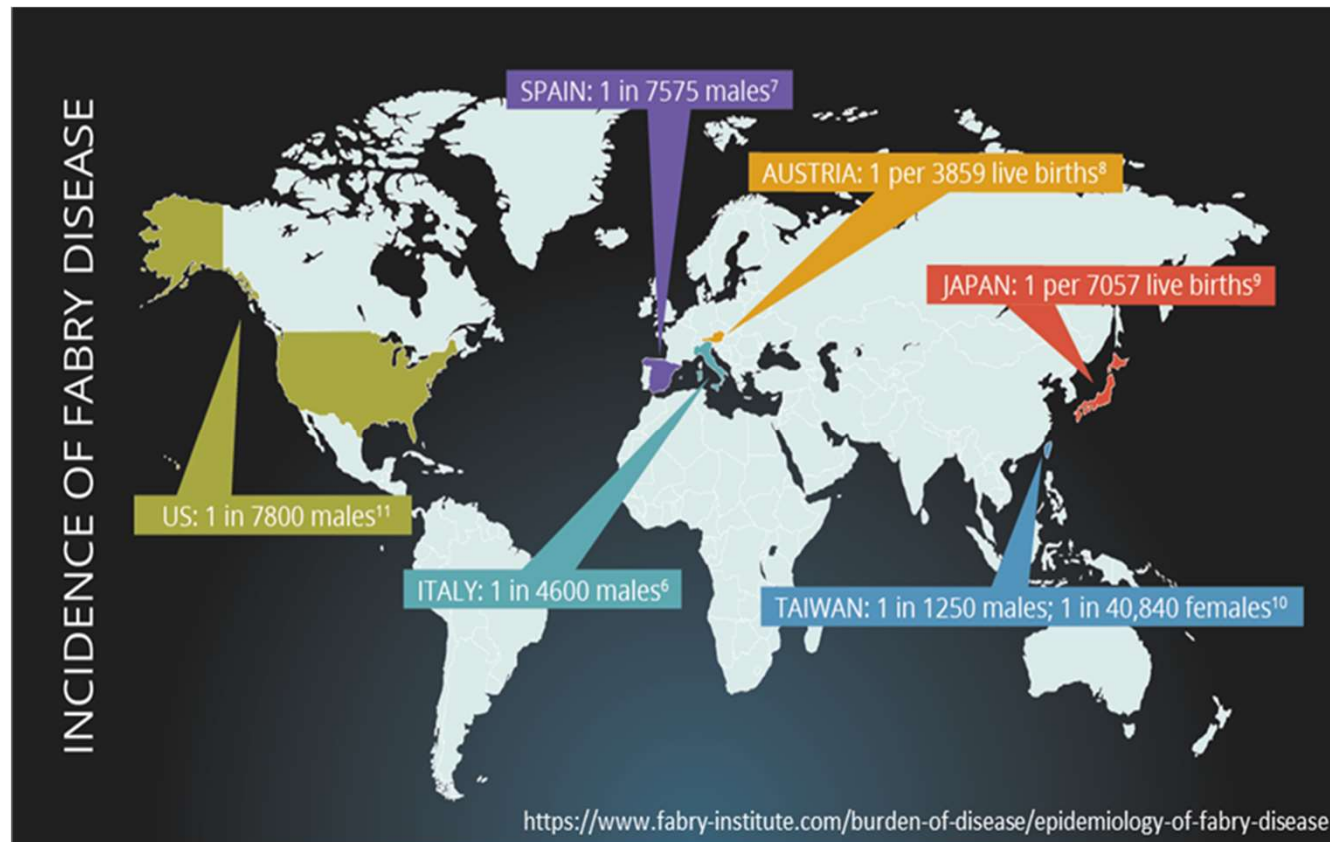


Under diagnosed

Newborn screening



1 in 1,250 to 1 in 21,973



Available treatments are not enough!

- None of the available ones are 100% efficient

NO EFFECTIVE GENE THERAPY IN THE MARKET....

- Lifelong treatment
- Antibody against the drug.
- High cost (200k to 300k USD per year)

AVAILABLE TREATMENTS



 **Galafold™**
(migalastat) 123 mg capsule

CHAPERONE THERAPY

Cost- \$299,821-312,186/year
Dose- Once every other week

SIZE OF THE MARKET

Total Available Market (TAM):

~30,000+ DIAGNOSABLE PATIENTS.

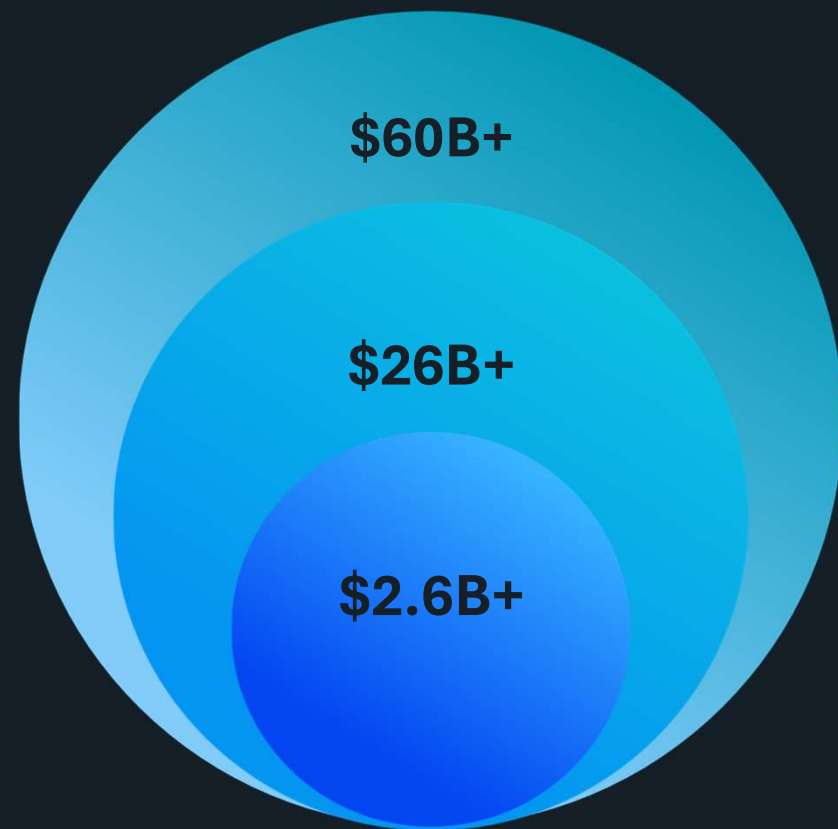
At ~ \$2M price per dose

Serviceable Available Market (SAM):

~13,050+ PATIENTS ACROSS US/EU - \$26B

Serviceable Obtainable Market (SOM):

10% OVER 5 YEARS = ~1305+ PATIENTS : \$2.6B



<https://www.delveinsight.com/report-store/fabry-disease-epidemiology-forecast-insight>

https://www.fabrydisease.org/about-fabry-disease/how-many-people-have-fabry-disease?utm_source=chatgpt.com

Looking For....



Looking for **industries/Investors** to collaborate with to translate the therapy to clinical applications. (We have collaboration with hospitals to arrange patients in Italy)



Regulatory path planning



cGMP low-scale manufacturing for clinical trials.



Your feedback.



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Thank You..



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