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Investor Presentation

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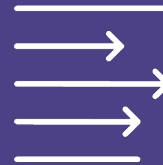
Hansa Biopharma today

A successful track record and a promising future...



A validated technology

- ✓ Commercial stage biotech company
- ✓ Approval in kidney transplantation (EU)
- ✓ Market Access in 12 European markets
- ✓ PoC in autoimmune diseases
- ✓ Three partnerships in gene therapy



Broad clinical pipeline

- Imlifidase being investigated in five ongoing clinical programs in transplantation and autoimmune disease
- Planned clinical study in gene therapy
- Next generation IgG antibody-cleaving enzymes program in phase 1



Skilled and experienced team

- A high-performance organization with 20 years on average in life science
- Purpose driven culture
- Headquartered in Lund, Sweden with 160 employees (March 2023)
- Operations in both EU and the US



Financial position

- Hansa is financed into 2025
- Market cap (USD): ~300m
- Listed on Nasdaq Stockholm
- 20,000 shareholders
- Foreign ownership make up ~47%

Imlifidase

A novel approach to eliminate pathogenic IgG

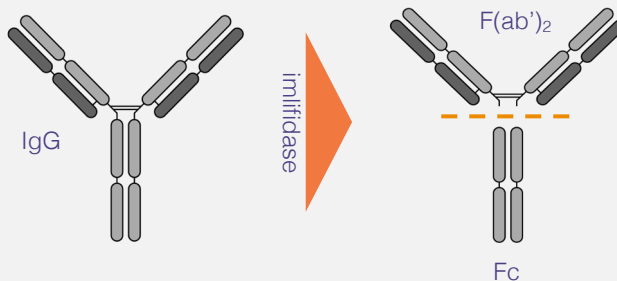
Origins from a bacteria *Streptococcus pyogenes*

- Species of Gram-positive, spherical bacteria in the genus *Streptococcus*
- Usually known from causing a strep throat infection



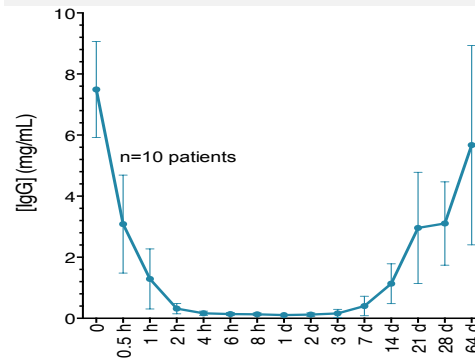
A unique IgG antibody-cleaving enzyme

- Interacts with Fc-part of IgG with extremely high specificity
- Cleaves IgG at the hinge region, generating one F(ab')₂ fragment and one homo-dimeric Fc-fragment


























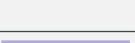



Inactivates IgG in 2-6 hours

- Rapid onset of action that inactivates IgG below detectable level in 2-6 hours
- IgG antibody-free window for approximately one week



Broad clinical pipeline in transplantation and auto-immune diseases including three programs in phase 3

Candidate/ Project	Indication	Research/ Preclinical	Phase 1	Phase 2	Phase 3	Marketing Authorization	Marketed	Next Anticipated Milestone
Imlifidase	EU: Kidney transplantation in highly sensitized patients ^{1,2}							EU: Additional agreements around reimbursement / Post approval study to be completed by 2025
	US: Kidney transplantation in highly sensitized patients ^{1,2}							Completion of enrollment (64 patients) H1 2023
	Anti-GBM antibody disease ³							First patient enrolled (50 patients)
	Antibody mediated kidney transplant rejection (AMR)							Full data read-out H2 2023
	Guillain-Barré syndrome (GBS)							Topline data H2 2023/ Comparative efficacy analysis to IGOS data in 2024
	Pre-treatment ahead of gene therapy in Duchenne (Partnered with Sarepta)							Initiate clinical study of imlifidase as pre-treatment in DMD 2023
	Pre-treatment ahead of gene therapy in Limb-Girdle (Partnered with Sarepta)							Preclinical research
	Pre-treatment ahead of gene therapy in Pompe disease (Partnered with AskBio)							Preclinical research
HNSA-5487	Lead molecule from second-generation IgG antibody cleaving enzymes (NiceR)							Read out from phase 1
	EnzE							Research

 Completed
  Ongoing
  Planned
  Post approval study running in parallel with commercial launch

¹ Results from the Phase 1 study have been published, Winstedt et al. (2015) PLOS ONE 10(7)

² Lorant et al American Journal of Transplantation and 03+04 studies (Jordan et al New England Journal of Medicine)

³ Investigator-initiated study by Mårten Segelmark, Professor at the universities in Linköping and Lund

Our unique antibody cleaving enzyme technology may have relevance across a range of indications

Targeting rare IgG mediated diseases



Auto-immune diseases

Anti-GBM paves the way for development in other autoimmune diseases

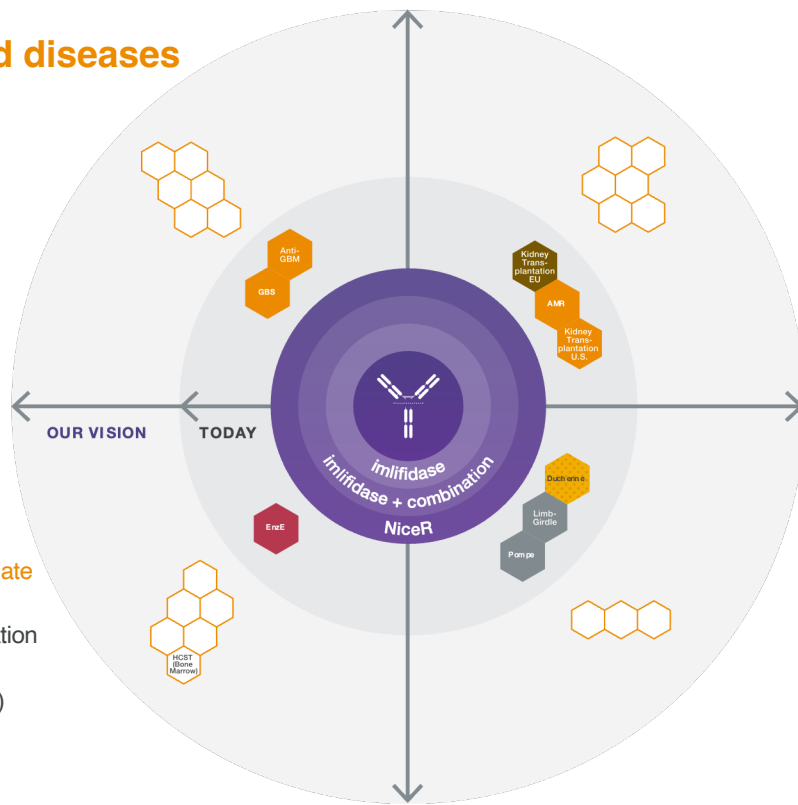
- Rapidly progressive glomerulonephritis
- Neurological disorders
- Skin and blood disorders



New therapies and oncology

IgG-cleaving enzymes to enable or even potentiate cancer therapy

- Allogeneic stem cell (bone marrow) transplantation (HSCT)
- Enzyme-based antibody Enhancement (EnzE)



Transplantation

Shaping a new standard for desensitization will help enable new indications in transplantations

- Antibody mediated rejection (AMR) in kidney transplantation
- Other transplantation types



Gene therapy

Exploring opportunities in gene therapy

- Encouraging preclinical data published in Nature
- Validation through collaborations with Sarepta and AskBio
- Wide indication landscape beyond

Imlifidase in kidney transplantation



Idefirix® is the first and only approved drug in Europe for desensitization of highly sensitized kidney transplant patients

Between 80,000 and 100,000 kidney transplant patients are waiting for a new kidney in both Europe and the U.S. Availability of organs remain a big challenge since only 1 in 4 patients are offered access to a lifesaving transplantation, while many highly sensitized patients are unlikely to be transplanted even under current prioritization programs

Low complexity transplants

High complexity transplants

~70% of patients^{1,2}

Non or less sensitized
(cPRA < 20%)

15-20% of patients^{1,2}

Moderately sensitized
(20% < cPRA < 80%)

10-15% of patients^{1,2}

Highly sensitized
(cPRA > 80%)

First patient experiences with Idefirix in highly sensitized kidney patients post approval published

54-year-old man successfully transplanted at Vall d'Hebron, Barcelona after two failed transplantation attempts in the 90s and being on dialysis since 1984

[Link article from Vall d'Hebron news forum August 25, 2022](#)

29-year-old woman transplanted at Erasmus, Rotterdam after being dialysis dependent since 2016 and experiencing two graft losses

[Link article in Amazing Erasmus from July 7, 2022](#)

Addressable market (annually)

4,000-6,000

split across Europe and the US





Patients that are likely to be transplanted with a compatible donor

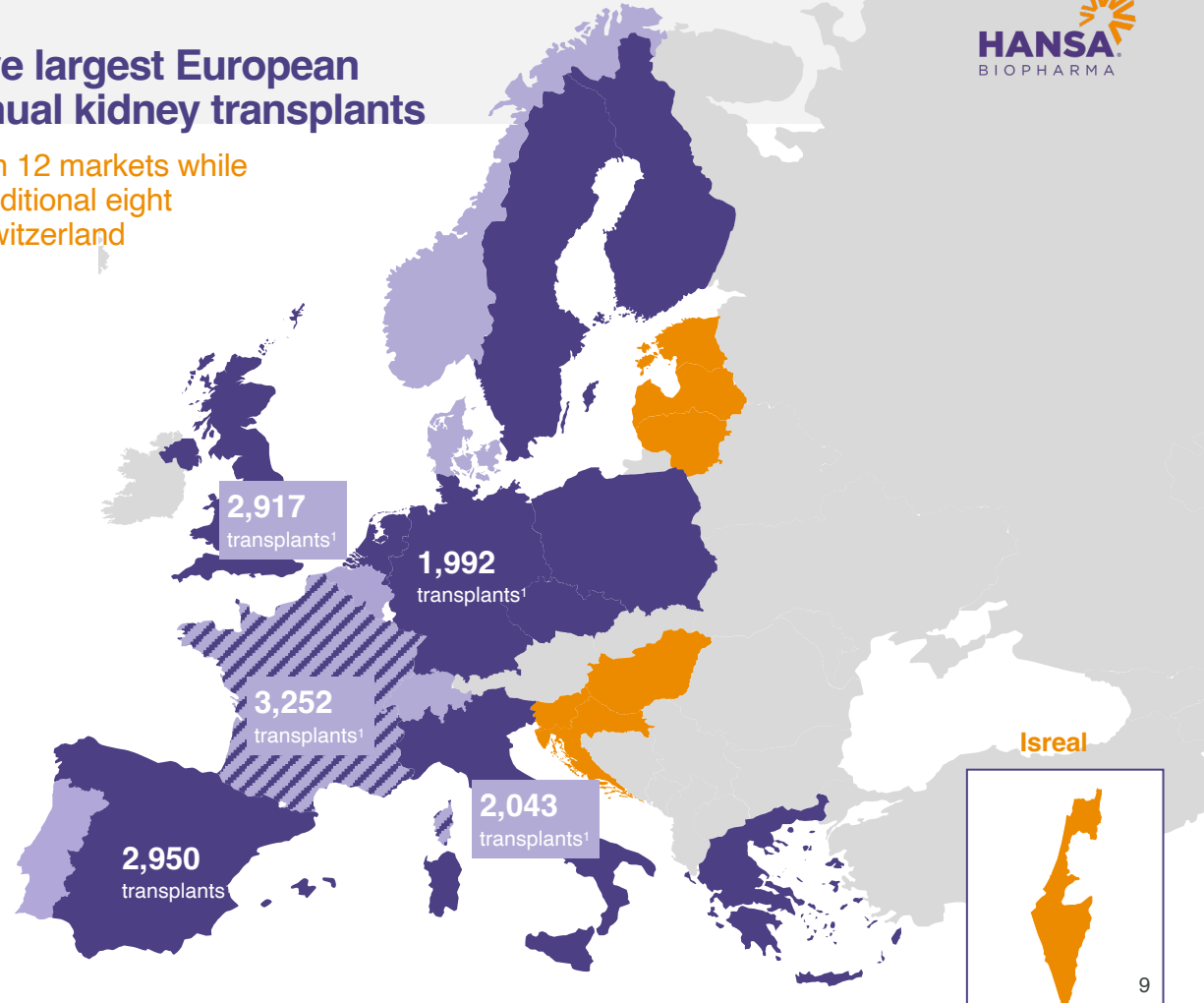
Patients unlikely to be transplanted under current prioritization programs

idefirix
imlifidase

Market Access secured in the five largest European markets representing 15,000 annual kidney transplants

Positive reimbursement decisions received in 12 markets while market access procedures are ongoing in additional eight countries including Belgium, Portugal and Switzerland

-  Health Technology Assessments (HTA) dossiers submitted
-  Reimbursed Early Access Program
-  Pricing & reimbursement obtained (country or clinic level)
-  Territories covered commercially by Medison Pharma



¹ Annual kidney transplantations 2019 (pre COVID-19) Transplantation data is from Global Observatory on Donation and Transplantation, 2019
² A positive recommendation for pricing and reimbursement of Idefixir[®] in Spain was published on February 6, 2023
https://www.sanidad.gob.es/profesionales/farmacia/pdf/20230202_ACUERDOS_CIPM_230.pdf

Clinical development programs

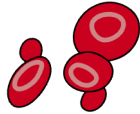


Autoimmune attacks remains a big challenge and requires immediate treatment

A result of when the body's immune system by mistake damages its own tissue and organs.
Autoimmune attacks are often triggered by a virus or bacteria leading to loss of self-tolerance

Blood

Autoimmune hemolytic anemia,
Immune thrombocytopenia



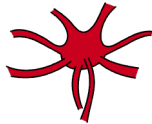
GI tract

Crohn's disease



Nerves

Guillain-Barré syndrome,
Myasthenia gravis



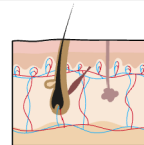
Lung

Wegner's granulomatosis

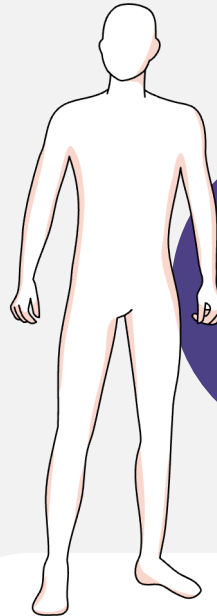


Skin

Psoriasis, Pemphigus



Over
100 different
types of
Autoimmune
disorders



Brain

Multiple sclerosis,
Neuromyelitis optica



Thyroid

Hashimoto's disease,
Graves' disease



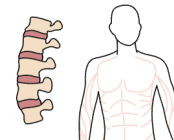
Kidney

Anti-GBM disease



Bone and muscle

Rheumatoid arthritis,
Dermatomyositis+ 32



Hansa's antibody cleaving enzyme technology

may have relevance in several autoimmune diseases where IgG plays an important role in the pathogenesis



Rapidly progressive glomerulonephritis

~1 000 patients*¹

Anti-GBM

Lupus nephritis
~35 000*²

ANCA-associated vasculitis
~325 000*³

CIDP: Chronic inflammatory demyelinating polyradiculoneuropathy
NMO: Neuromyelitis optica
EBA: Epidermolysis bullosa acquisita
ITP: Immune thrombocytopenia



Neurological disorders

Myasthenia gravis
~210 000*⁴

NMO
~20 000*⁷

CIDP
~55 000*⁶

GBS

~10 000 patients*⁵

WAHA: Warm antibody hemolytic anemia
APS: Antiphospholipid syndrome
AHA: acquired hemophilia A
HIT: Heparin-induced thrombocytopenia



Skin disorders

<1 000 patients*⁸

EBA

Pemphigus vulgaris
~40 000*⁹



Clinical programs



Potential autoimmune indications (currently not pursued)

*Total disease populations in EU & US, based on prevalence and population data



Blood disorders

~1 000* patients¹³

AHA

WAHA
~95 000*¹¹

ITP
~75 000*¹⁰

HIT
0.1–5% of patients receiving therapeutic dose of heparin¹⁴

APS
~350 000*¹²

Anti-GBM, a rare acute autoimmune disease

Incidences

1.6

in a million affected annually^{1,2}

Standard of Care

- Plasma Exchange
- Cyclophosphamide (CYC)
- Glucocorticoids

Results from Phase 2 study of imlifidase in anti-GBM disease published in Journal of American Society of Nephrology (JASN)³

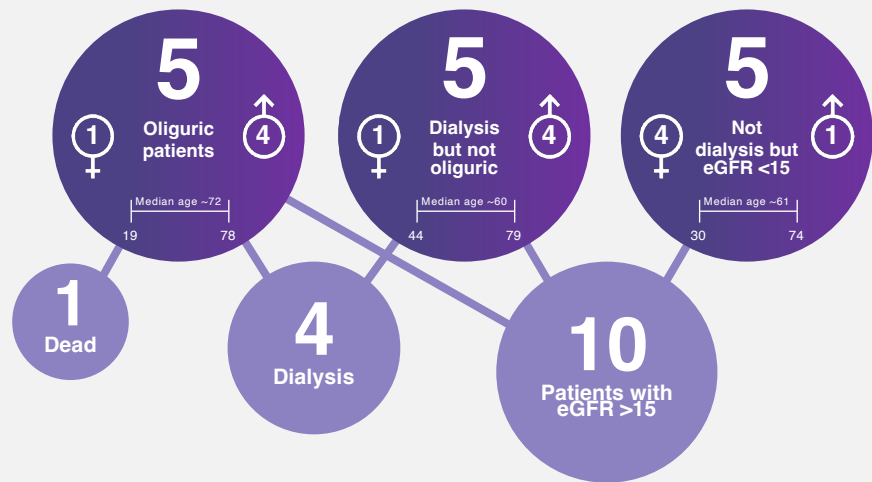
10 out of 15 patients were dialysis independent after six months vs. the historical cohort⁴, where only 18% had functioning kidney

Inflammation in the glomeruli

Early symptoms are unspecific...

...but can lead to rapid destruction of the kidney and/or the lung

Data published in JASN



¹ Wang et al., J. Intern. Med., 2015

² Desai et al., Front. Endocrinol., 2019

³ Uhlir et al. JASN (2022)

⁴ McAdoo et al.: Patients double-seropositive for ANCA and anti-GBM antibodies have varied renal survival, frequency of relapse, and outcomes compared to single-seropositive patients. Kidney Int 92: 693–702, 2017

Guillain-Barré Syndrome (GBS) is an aggressive acute autoimmune attack on the peripheral nervous system

Incidences

~10,000

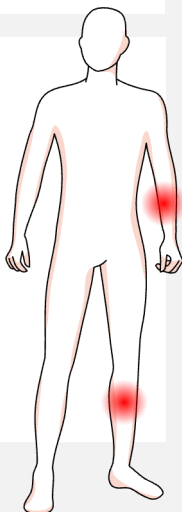
Patients in seven major markets (annually)

Standard of Care

- Intravenous immune globulin (IVIg) or
- Plasma Exchange (PLEX)

Indication

- Rapidly and progressively weakens extremities
- Triggered frequently by viral infections



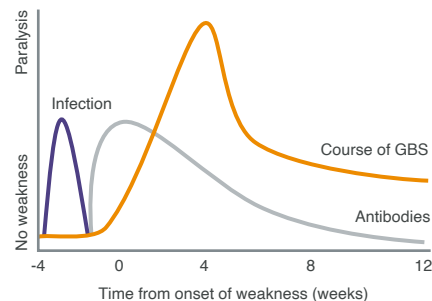
High unmet need

- 1/3 of patients require mechanical ventilation
- Remaining long lasting symptoms in ca 40% of patients

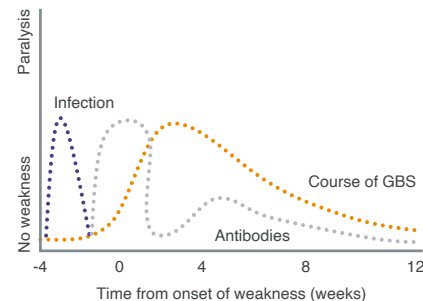
FDA granted Orphan Drug Designation to imlifidase for the treatment of GBS

Phase 2 study to evaluate safety and effectiveness of imlifidase in patients diagnosed with GBS

Today's Standard of Care IVIg or PLEX Illustrative



Potential with imlifidase Illustrative

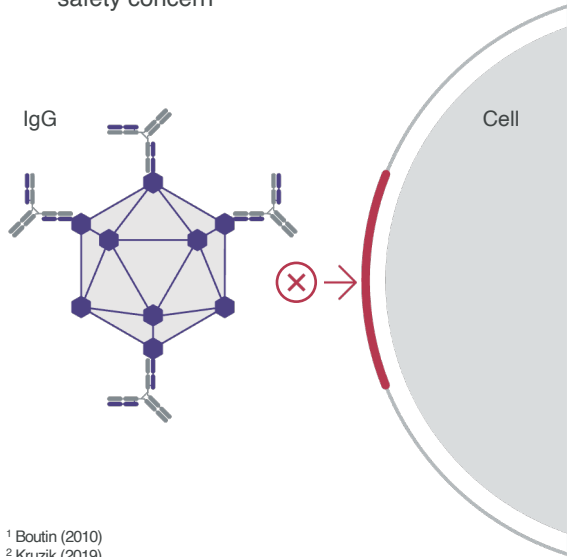


**Study is an open-label, single arm, multi-center trial
30 patients targeted at ten clinics**

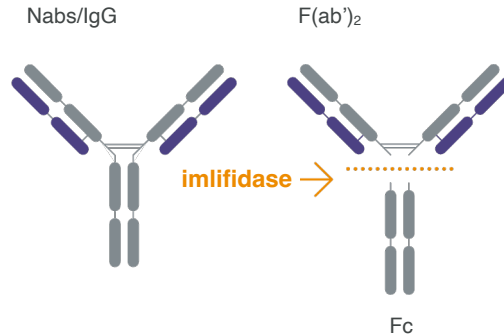
Neutralizing antibodies (Nabs) are immunological barriers in gene therapy; imlifidase may potentially eliminate Nabs

Between approximately 5%-70%^{1,2} of patients considered for gene therapy treatment carry neutralizing anti-AAV antibodies forming a barrier for treatment eligibility

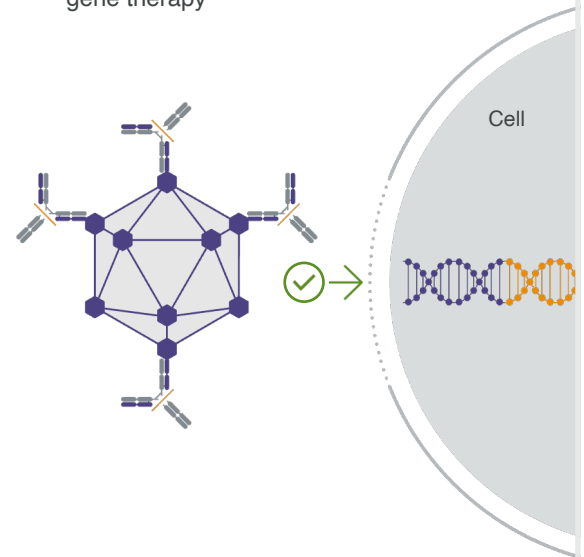
1 Antibodies prevent effective transfer of healthy gene sequence and can be a safety concern



2 Imlifidase is a unique IgG antibody-cleaving enzyme that cleaves IgG at the hinge region with extremely high specificity



3 The idea is to eliminate the neutralizing antibodies as a pre-treatment to enable gene therapy



¹ Boutin (2010)

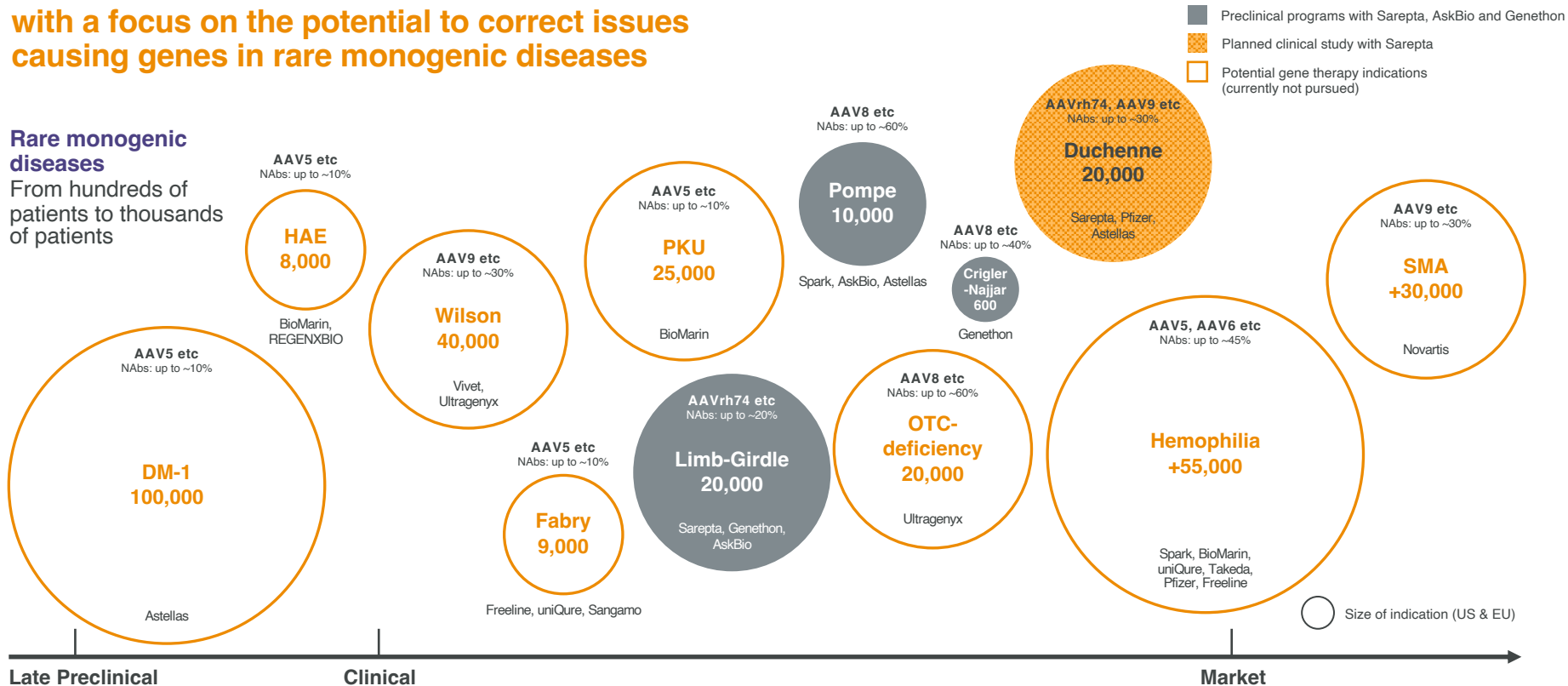
² Kruzik (2019)

Systemic gene therapy is an emerging opportunity

with a focus on the potential to correct issues causing genes in rare monogenic diseases








Rare monogenic diseases

From hundreds of patients to thousands of patients



Global exclusive agreements with three partners in gene therapy

To develop and promote imlifidase as pre-treatment ahead of gene therapy in select indications

Partner	Access to key resources	Indication exclusivity	Collaborative research, development and commercialization	
	<ul style="list-style-type: none"> World leader within gene therapy targeted at muscular dystrophies Pre-clinical and clinical plan Regulatory Promotion SRP-9001 PDUFA June 2023 	Duchenne Muscular Dystrophy (DMD) 1/3,500 to 5,000 male births worldwide		
		Limb-Girdle Muscular Dystrophy Global prevalence of ~1.6 per 100k individuals		
	<ul style="list-style-type: none"> Early innovator in gene therapy Conducts pre-clinical and clinical trials (Phase 1/2) 	Pompe disease Approximate incidence is 1 per 40,000 births, or ~200 per year in the US + EU		Exclusive option for AskBio to negotiate a potential full development and commercialization agreement
	<ul style="list-style-type: none"> A pioneer in the discovery and development of gene therapies Conducts pre-clinical and clinical trials (Phase 1/2) 	Crigler-Najjar syndrome Approximately incidence is 0.6-1 case per one million people or 600 patients in Europe and the U.S		The initial agreement is focused on research and development The companies will consider a subsequent agreement for commercialization at a later stage

Our strategic priorities

Our mission is to become a global leader in rare diseases



Commercialize Idefirix® in first indications and markets

- Successfully launch Idefirix® in Europe
- Secure FDA approval and launch Idefirix® in the U.S.
- Geographical expansion



Advance ongoing imlifidase clinical programs in transplantation and autoimmune diseases

- Achieve approval/usage of imlifidase in follow-on indications
- Broaden our Idefirix® label beyond kidney transplantation



Expand IgG-cleaving enzyme technology platform into new disease areas and indications

- Explore gene therapy opportunity
- Explore opportunities in Oncology and stem cell transplantation (HSCT)
- Develop our next generation IgG-cleaving enzymes to allow for recurring treatment

Build focused, integrated, agile and empowered international organization and seek partnerships to accelerate growth and reduce risk

At Hansa Biopharma we are committed to driving our business forward in a sustainable way guided by three strategic ESG principles



Healthy people

Address unmet medical need and ensure equitable access to care



Healthy business

Make a difference by operating an ethical, transparent and responsible business and cultivate an engaged culture of collaboration, inspiration and innovation



Healthy planet

Embrace sustainable decision making and environment stewardship



