


# Sobi Capital Markets Day 2020

rare **strength**

A solid orange circle.

10 December 2020



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Welcome



**Paula Treutiger**

Head of Communications and Investor Relations

## Forward-looking statements

*In order to utilise the 'Safe Harbor' provisions of the United States Private Securities Litigation Reform Act of 1995, Swedish Orphan Biovitrum AB (publ) is providing the following cautionary statement. This presentation contains forward-looking statements with respect to the financial condition, results of operations and businesses of Swedish Orphan Biovitrum AB (publ). By their nature, forward-looking statements and forecasts involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. There are a number of factors that could cause actual results and developments to differ materially from that expressed or implied by these forward-looking statements. These factors include, among other things, the loss or expiration of patents, marketing exclusivity or trade marks; exchange rate fluctuations; the risk that R&D will not yield new products that achieve commercial success; the impact of competition, price controls and price reductions; taxation risks; the risk of substantial product liability claims; the impact of any failure by third parties to supply materials or services; the risk of delay to new product launches; the difficulties of obtaining and maintaining governmental approvals for products; the risk of failure to observe ongoing regulatory oversight; the risk that new products do not perform as we expect; and the risk of environmental liabilities.*

## Today's presenters



**Guido Oelkers**  
CEO



**Henrik Stenqvist**  
CFO






**Ravi Rao**  
Head of R&D and  
CMO



**Norbert Oppitz**  
Head of Immunology  
and International

# Today's agenda

	<b>Strategy and realising opportunities</b>	Guido Oelkers	13:05
	<b>Innovation management at Sobi</b>	Ravi Rao	13:30
	<i>Break</i>		14:30
	<b>Internationalisation strategy</b>	Norbert Oppitz	14:45
	<b>Financial update</b>	Henrik Stenqvist	15:00
	<b>Wrap up and Q&amp;A</b>	Guido Oelkers	15:15

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Strategy and realising  
opportunities



**Guido Oelkers**  
CEO

# Five years ago, Sobi looked very different

Business largely characterised by **in-licensing/  
distributor agreements**

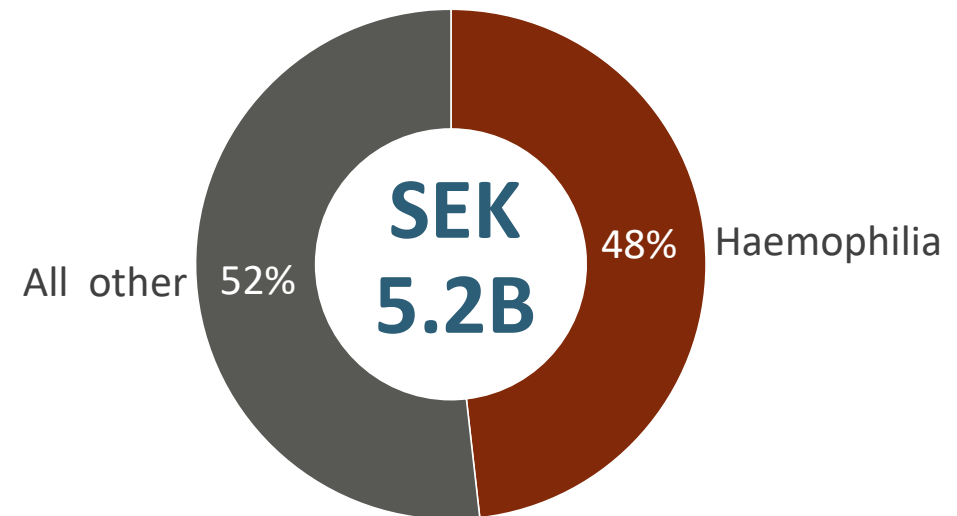
Significant **dependence on an emerging haemophilia  
portfolio**

Pipeline with **no big bets in rather early-stage R&D**

**Europe-centric approach** without significant  
footprint in the US

International business **sub-scale** in most geographies  
outside Europe

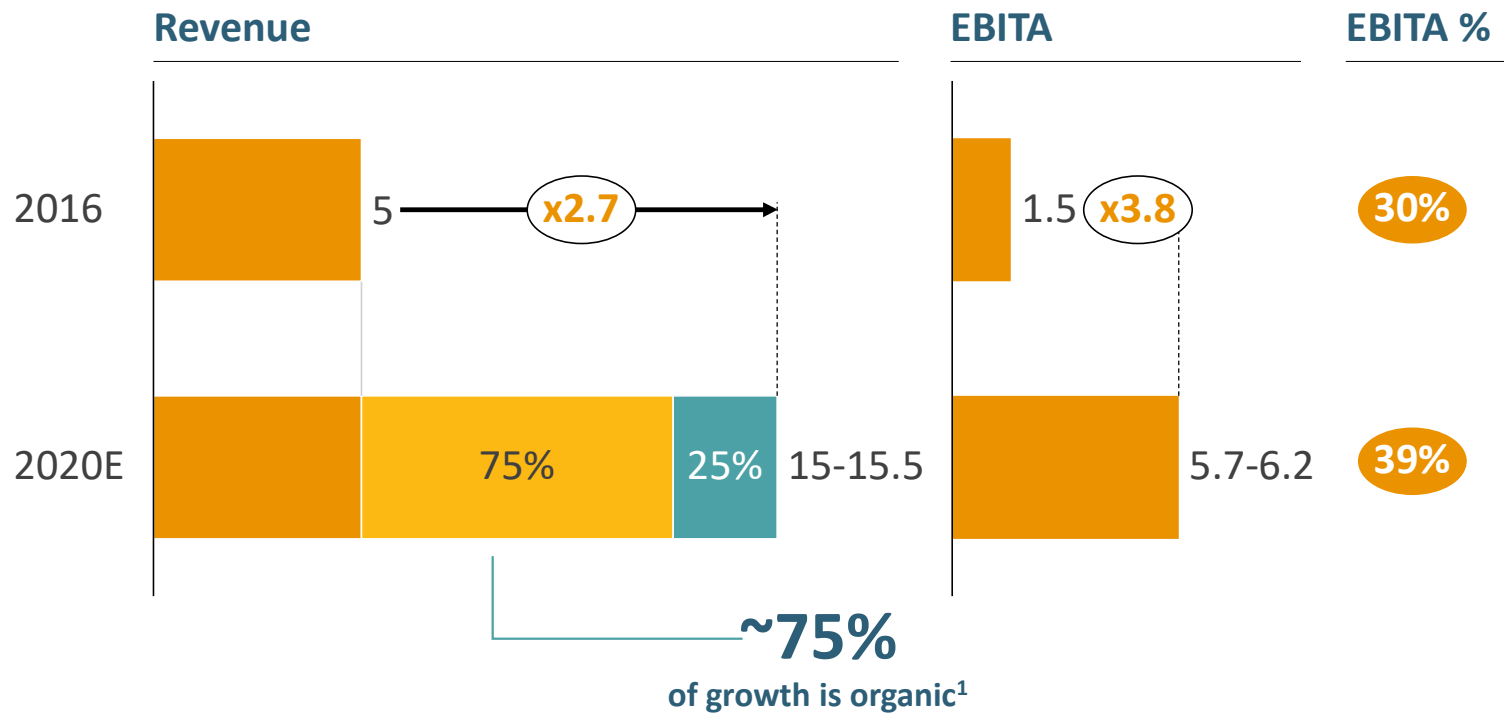
## Revenue 2016



# We have accomplished much in the past four years

SEK B

Organic growth Inorganic growth



1. Inorganic growth defined as FY 2018 revenue for Synagis (USD 287M) and Doptelet (USD 10M)

Source: Sobi Annual Report 2016; 2020 guidance per Q3 2020 report



# Committed to a continuous upgrade of our sustainability agenda

## Sustainability strategy



### Commitment to patients

- Our R&D is ethical and focused on medical need
- We expand access to treatment
- We are patientcentric & engage with our communities
- We contribute to knowledge to enhance the practice of medicine
- We focus on patient safety



### Responsible behavior

- We have no tolerance for corruption
- We are transparent
- We source responsibly
- We develop our people and keep them safe and healthy
- We reduce our environmental footprint



**Commitment  
to Agenda  
2030 and  
the Paris  
Agreement**

In 2017, we set out our strategy to build a regional leader in rare disease – a strategy on which we have forcefully delivered



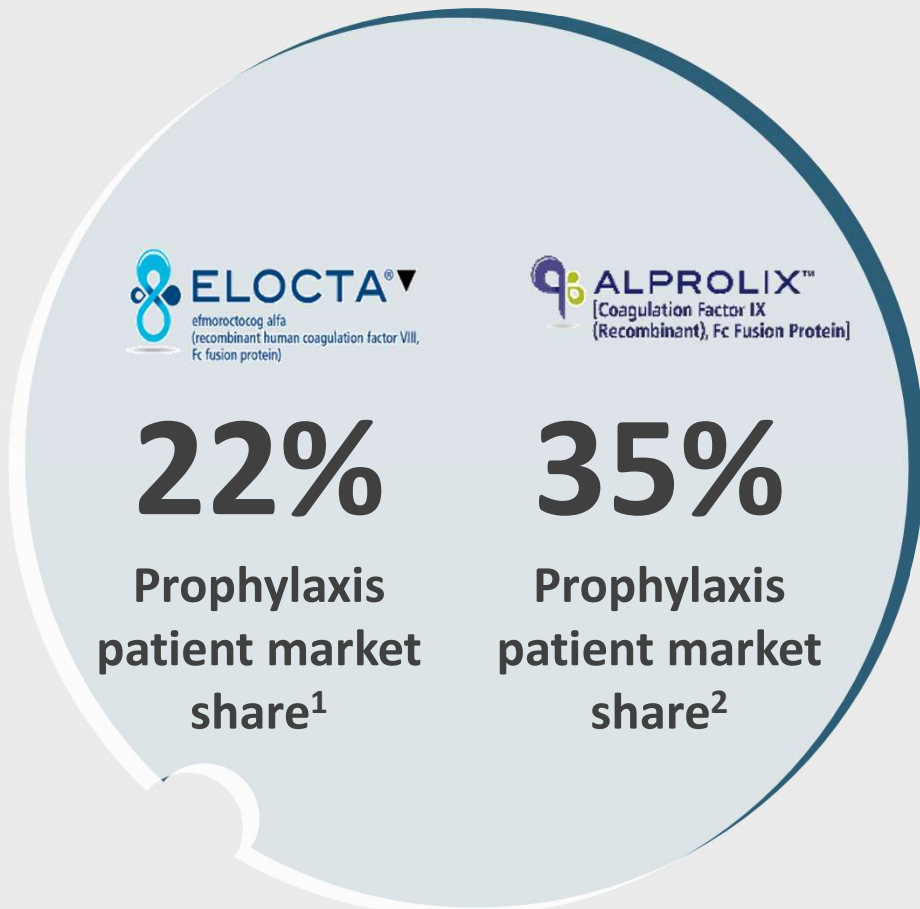
1.  
Drive  
Haemophilia  
penetration

2.  
Develop  
Immunology

3.  
Grow US business  
and strengthen  
position in  
EMENAR

4.  
Strengthen  
late-stage pipeline

# 1. We have made a significant impact in the haemophilia market



**#1**  
Ranked leader in haemophilia by healthcare professionals<sup>3</sup>

From  
**2023**  
we advance our leadership through BIVV001 as new normal

**#1**  
in community and scientific engagement<sup>4</sup>

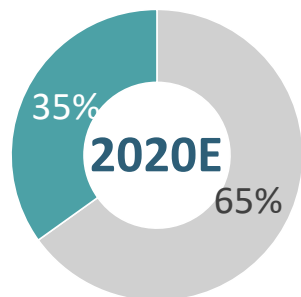
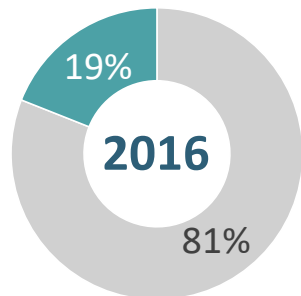
BIVV001 is developed and, if approved, will be commercialised in collaboration with Sanofi

1. Elocta FY sales for 2019 in relation to estimates based on MRB, Global Forecast of the Factor VIII Market by Region, Product Category and Company to 2022, November 2018; Data for Europe and Middle East and Africa 2. Internal data 3. Corporate Perception survey with HCPs treating haemophilia 2016 – 2019, N= 48 4. Internal data

## 2. Immunology: strong performance since establishment in 2016

### Immunology revenue share

■ Immunology ■ Other



Source: Sobi



### Driven by three major products



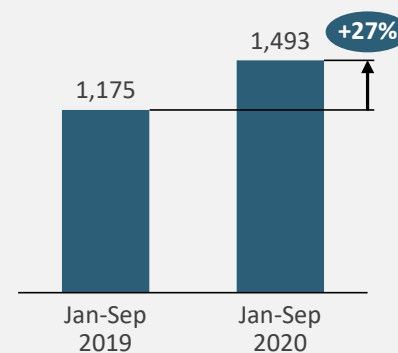
**Performing well under our ownership**

Revenue, SEK M

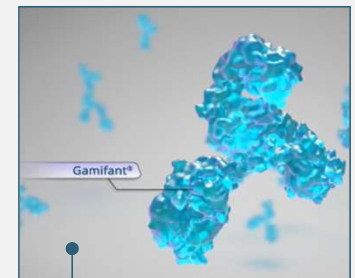


**Growing strongly at 27% YTD**

Revenue, SEK M



**Established biology leading us into new fields**

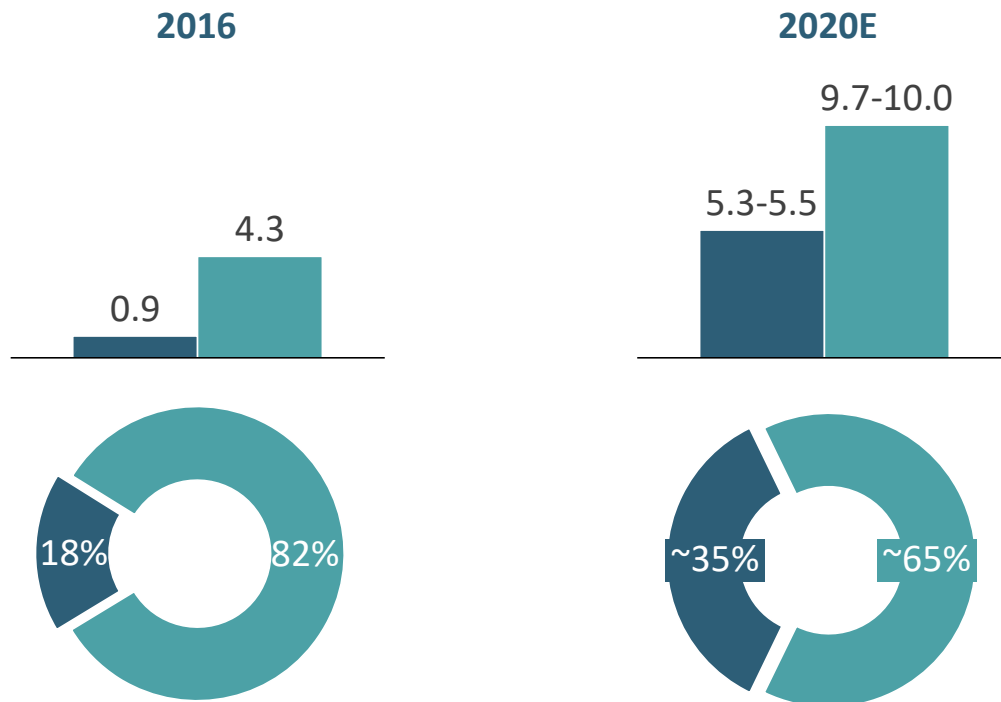


**First targeted treatment for primary haemophagocytic lymphohistiocytosis (pHLH), a life-threatening hyper-inflammation disease**

### 3. US business now a powerful platform for future growth

Revenue by geography, SEK B

■ US ■ Non-US



#### Background

Over the past five years, we have **increased our footprint in the US to ~35% of total sales**

**Key drivers for increasing importance of US business were acquisitions of Synagis, Gamifant and Doptelet**

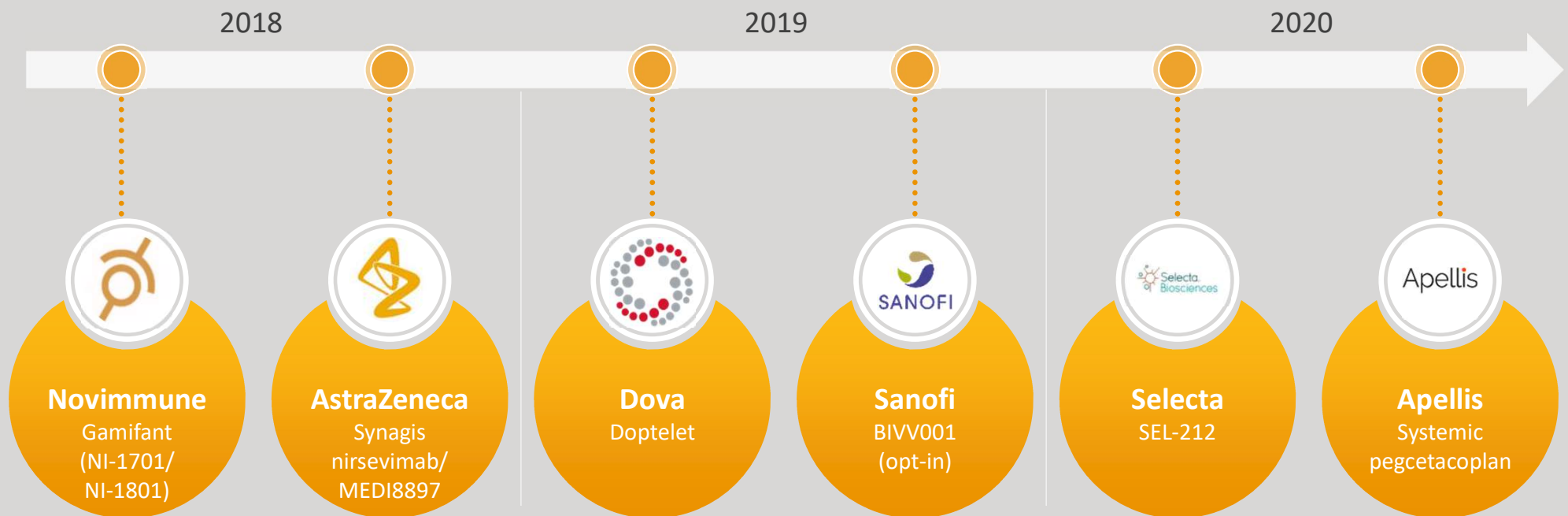
Going forward, **US will continue to grow** both in absolute and relative terms due to **Doptelet** and **Gamifant**

## 4. Capturing substantial value from our late-stage pipeline<sup>1</sup>

Phase 2	Phase 3	In registration
<b>Gamifant / emapalumab</b> Secondary HLH malignancy	<b>Gamifant / emapalumab</b> Secondary HLH rheumatology	<b>Gamifant / emapalumab</b> Primary HLH (RoW)
<b>Gamifant / emapalumab</b> GvHD	<b>SEL-212 / pegadricase<sup>3</sup></b> Chronic refractory gout	<b>Kineret / anakinra</b> Deficiency of IL-1 receptor antagonist (DIRA) (US)
<b>Gamifant / emapalumab</b> Graft failure (GF)	<b>MEDI8897 / nirsevimab<sup>4</sup></b> RSV prevention	<b>Doptelet / avatrombopag</b> Chronic immune thrombocytopenia (ITP) (EU)
<b>pegcetacoplan<sup>2</sup></b> HSCT-TMA	<b>BIVV001 / rFVIII-Fc-VWF-XTEN<sup>5</sup></b> Haemophilia A	<b>pegcetacoplan 2<sup>nd</sup> line<sup>2</sup></b> Paroxysmal nocturnal haemoglobinuria
<b>pegcetacoplan<sup>2</sup></b> ALS	<b>pegcetacoplan<sup>2</sup></b> CAD	
	<b>pegcetacoplan 1<sup>st</sup> line<sup>2</sup></b> Paroxysmal nocturnal haemoglobinuria	
	<b>pegcetacoplan<sup>2</sup></b> IC-MPGN and C3G	

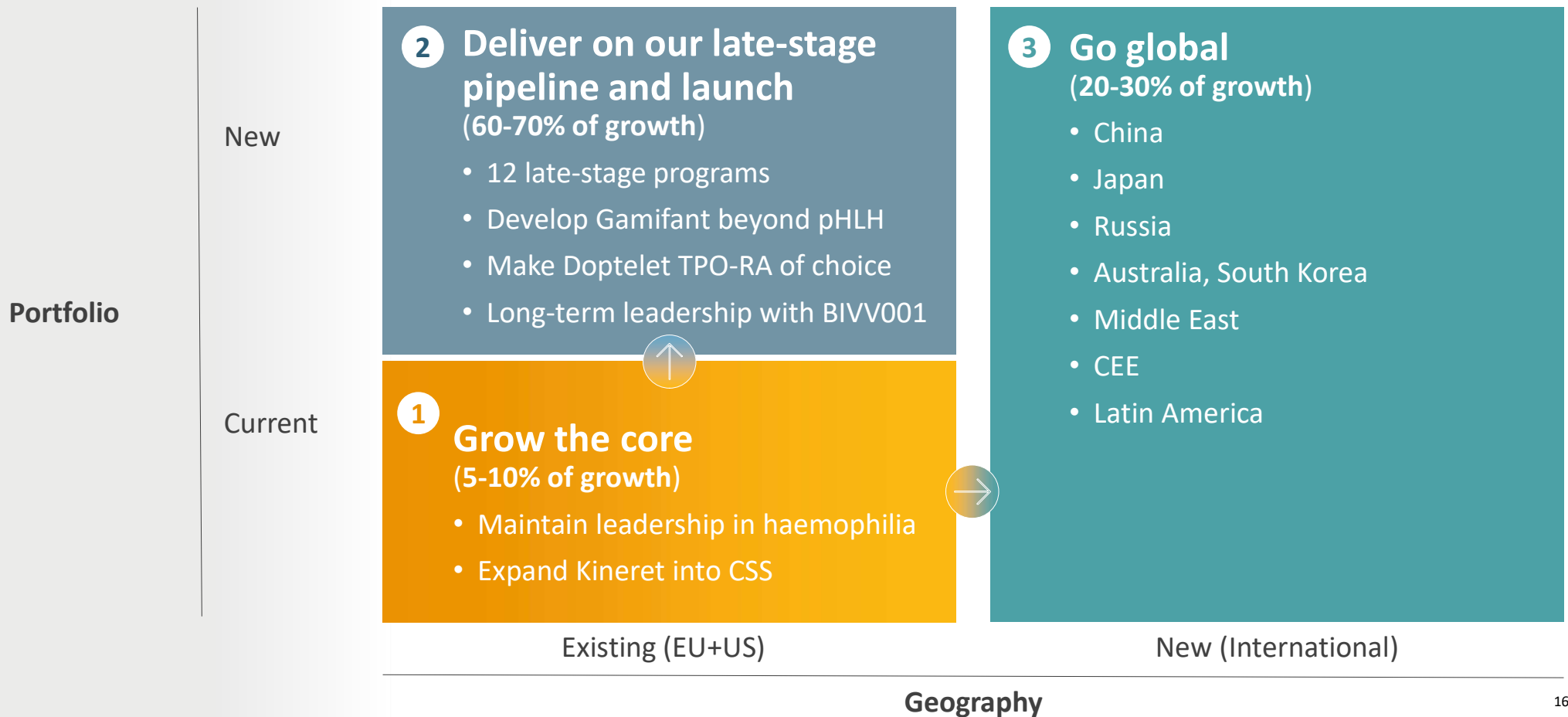
1. Not all programmes have been started 2. In collaboration with Apellis 3. Strategic licensing agreement with Selecta 4. Financial interest only, in collaboration with AstraZeneca 5. BIVV001 is developed and, if approved, will be commercialised in collaboration with Sanofi

# M&A continues to be a key driver for our transformation



BIVV001 is developed and, if approved, will be commercialised in collaboration with Sanofi  
 Nirsevimab is being developed by AZ and commercialised by Sanofi. Sobi has an option to the rights to 50% of the profits and losses of the product in the US

# How we will grow beyond today's core

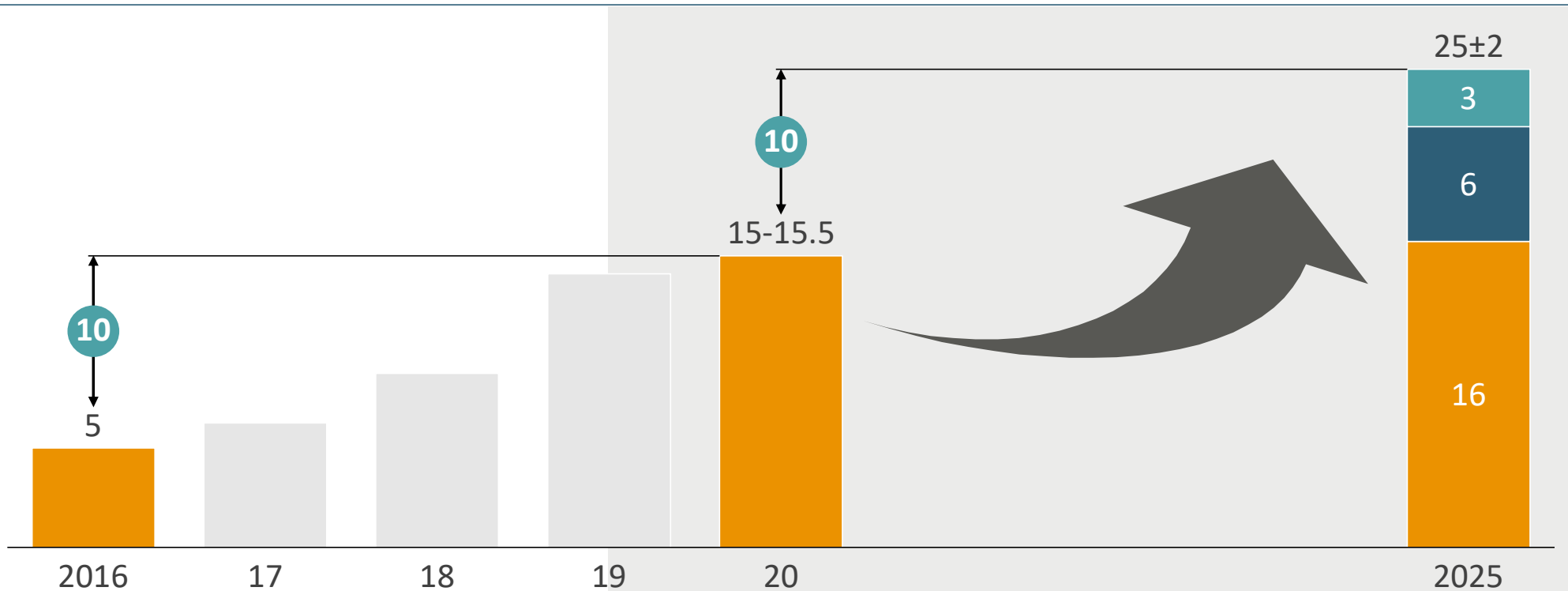




# For the coming five years, our new ambition is '25 by 25'

## Revenue in SEK B

■ Go global<sup>1</sup>
■ Capture value of pipeline<sup>2</sup>
■ Grow the core<sup>3</sup>



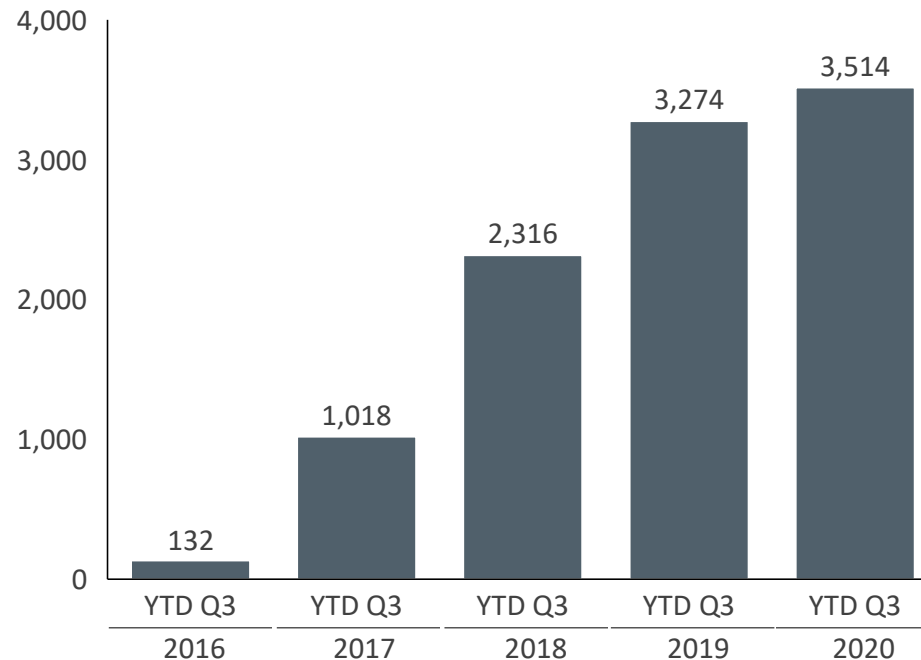
1. Growth from core and pipeline in international markets
2. Growth from pipeline in current markets
3. Growth from core in current markets

# 1. Committed to develop Elocta in a challenging environment

## Opportunities

- New launches, such as Russia, opportunity of SEK 500 million
- Penetration upside in certain markets
- Large patient pool on SHL and plasma
- Clear long-term commitment to patients with BIVV001 and normalisation

YTD product sales<sup>1</sup>  
SEK M



## Headwinds

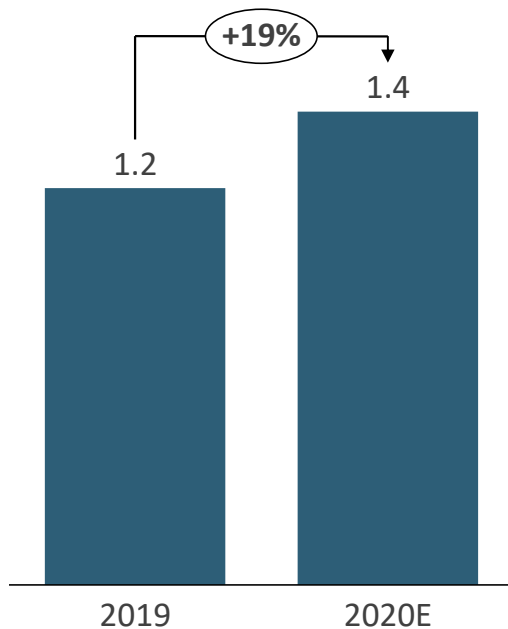
- Increasing competition from new EHLs and NFT
- Price pressure as a result of increasing competition and post COVID-19 cost constraints
- Access restrictions and reduction in per-capita consumption – COVID-19 prohibiting patients and pharma from visiting physicians and reducing surgical procedures

1. Excluding royalties  
Source: Sobi

# 1. Creating material growth from a strong trajectory and clear differentiation

## US TPO-RA<sup>1</sup> market

USD B

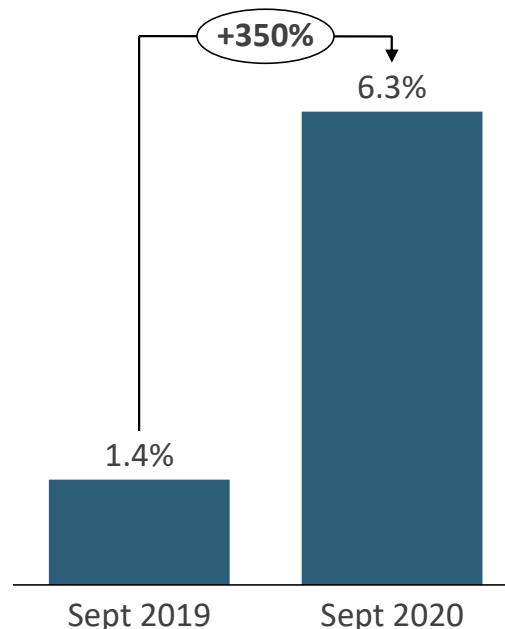


1. Thrombopoietin receptor agonist 2. Approved for ITP in the US and awaiting approval in the EU. See prescribing information in the applicable territory for the approved indication.  
3. Approved for patients with CLD and thrombocytopenia undergoing a procedure in US, Europe and China. See prescribing information in the applicable territory for the approved indication.

Source: Symphony Monthly Data (Sep 2020), RFT 11.4.20

## Sobi's market share in the US

Adult ITP only



See prescribing information in the applicable territory for the approved indication.



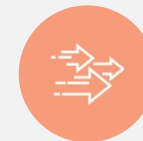
**Doptelet**  
(avatrombopag) tablets



Doptelet is a small molecule **thrombopoietin receptor agonist** used to treat thrombocytopenia in **ITP<sup>2</sup>** and **CLD<sup>3</sup>**



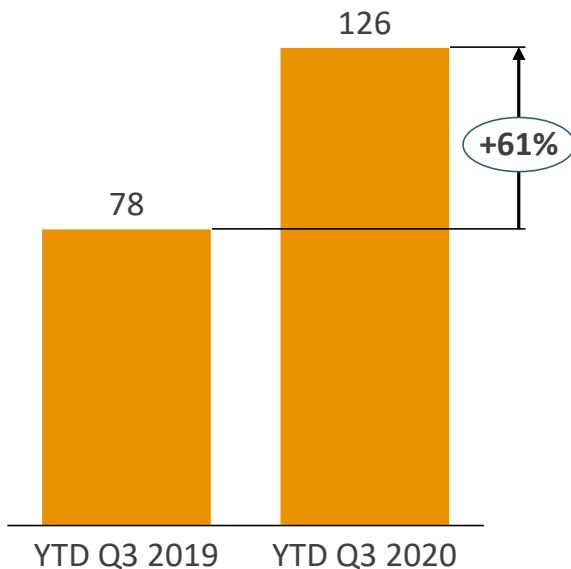
As a **cost-effective oral treatment** with high efficacy and administered with food and without dietary restrictions, it is **clearly differentiated** against competitors and **well on the way to becoming the TPO-RA of choice**



We **enable broader access** to Doptelet through expansion into **new markets**, including in Europe and through our **international division** including Japan<sup>2,3</sup>

## 2. Developing Gamifant: a strong trajectory into the future

Development of Gamifant over time,  
in thousands of mg



Source: Sobi



### HLH



#### Maximise in pHLH

Expand geographically  
Drive disease awareness



#### Expand into sHLH

Develop sHLH from rHLH and mHLH to iHLH

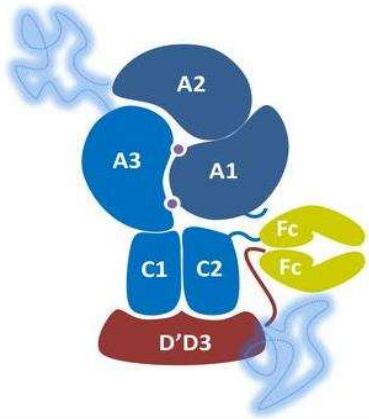


#### Move to the next frontier: GF & GvHD

Develop GF with companion diagnostic

## 2. We opted in early<sup>1</sup> for **BIVV001** – to drive our leadership in haemophilia into the future

### Extending half-life by factor of 3-4



Builds on the **Fc-fusion** technology – same as for Elocta – with added domains of **von Willebrand factor** and **XTEN<sup>®2</sup>** polypeptides

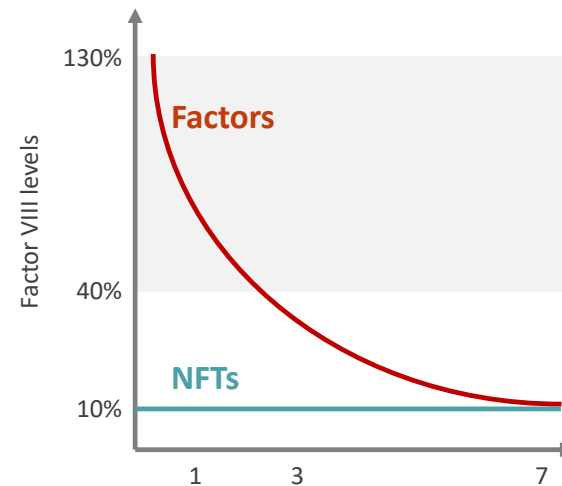
BIVV001 is developed and, if approved, will be commercialised in collaboration with Sanofi

1. In September 2019, Sobi exercised early opt-in for the development and commercialisation of BIVV001, an investigational factor VIII therapy with the potential to provide extended protection from bleeds with once-weekly dosing for people with haemophilia A. Sobi and Sanofi also collaborate on the development and commercialisation of Alprolix and Elocta/ELOCTATE. Sobi has final development and commercialisation rights in the Sobi territory (essentially Europe, North Africa, Russia and most Middle Eastern markets). Sanofi has final development and commercialisation rights in North America and all other regions in the world excluding the Sobi territory and has manufacturing responsibility for Elocta/ELOCTATE and Alprolix. 2. XTEN is a registered trademark of Amunix Pharmaceuticals, Inc.



### Improving patient QoL through once-weekly dosing

*Illustrative*



**High sustained levels of factor VIII activity with once-weekly dosing with BIVV001**



### Overcoming current limitations in haemophilia treatments



BIVV001 used as monotherapy, whereas NFT require factor to treat breakthrough bleeds



BIVV001 has the potential to achieve more normal factor VIII activity allowing for active lives, whereas NFTs do not

## 2. SEL-212 gives us a substantial opportunity in immunology

### SEL-212's unique value proposition



Reduced immunogenicity



Sustained efficacy



Greater reduction in SUA levels

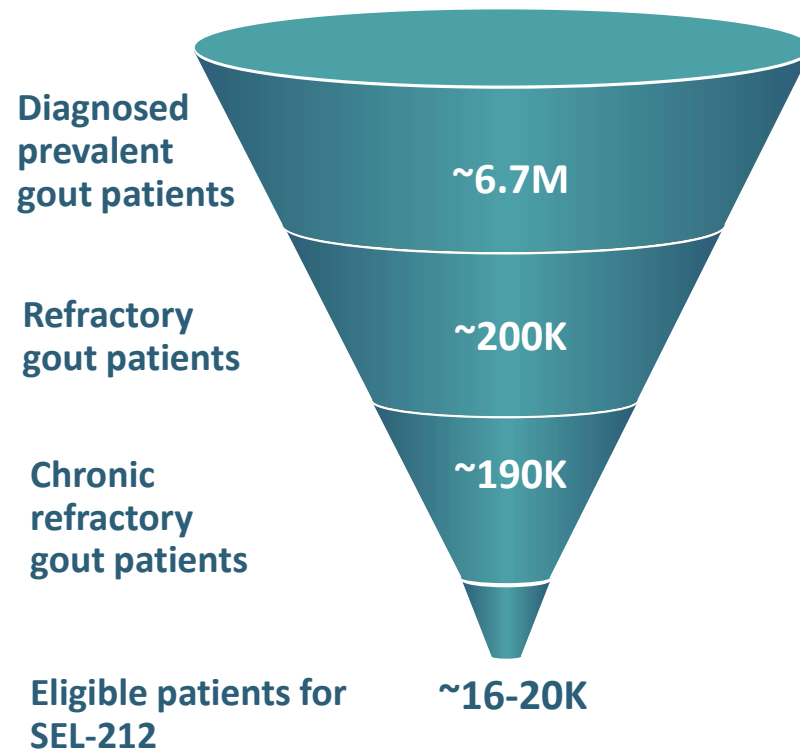


Better control in patients with tophi



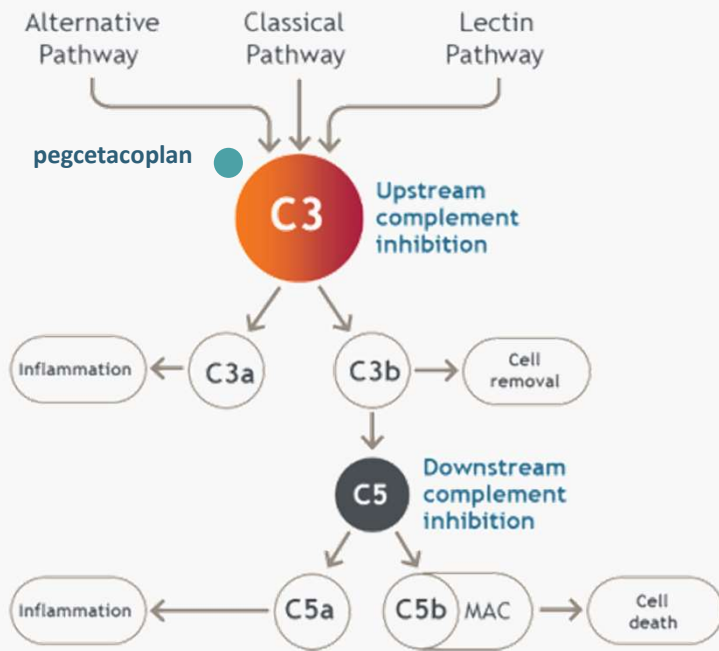
Monthly dosing

### Patient population US (2030)



## 2. The partnership with Apellis is a great example of how we have expanded our late-stage pipeline with multiple opportunities

### C3 has a central role in the complement cascade



### Indications

### Patient opportunity ex-US (Sobi territory)

PNH

~9,000-11,000

CAD

~7,000-9,000

HSCT-TMA

~8,000-10,000

IC-MPGN/C3G

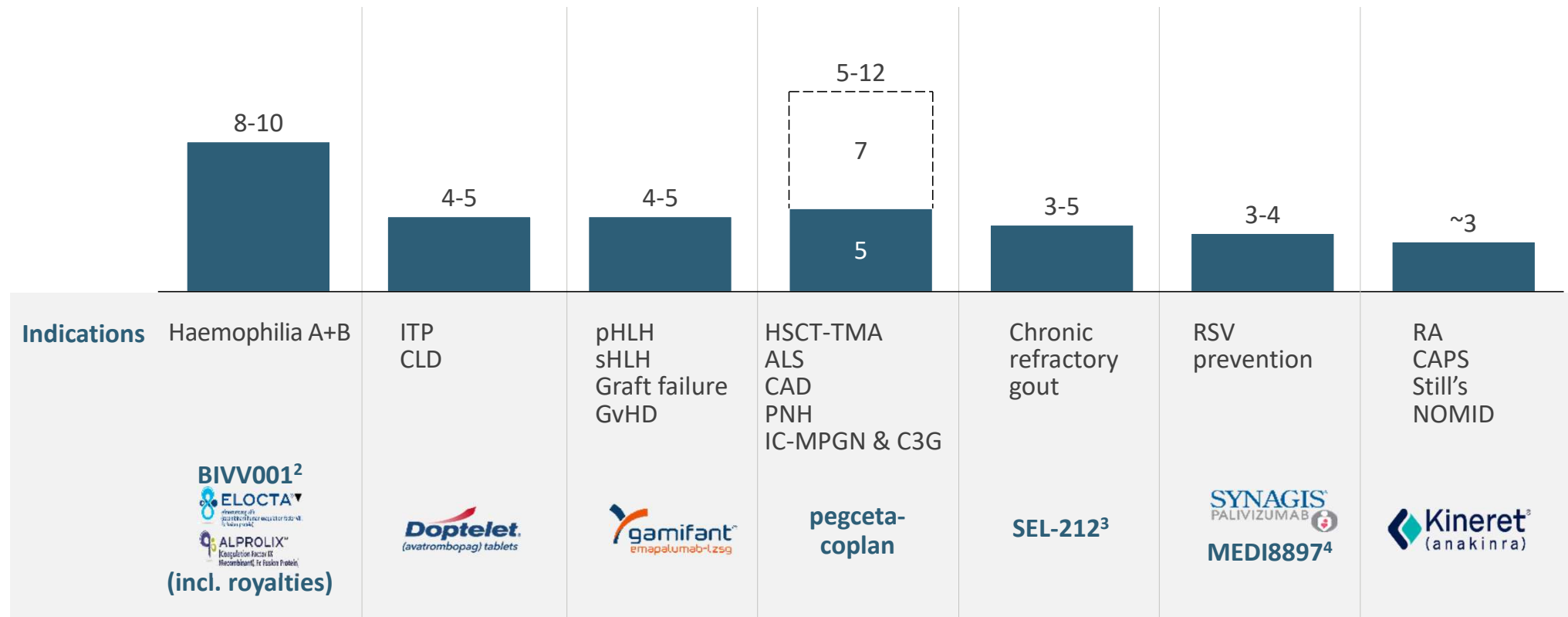
~6,000-8,000

ALS

~200,000

## 2. Estimated peak sales of our portfolio

Estimated peak sales<sup>1</sup>, SEK B

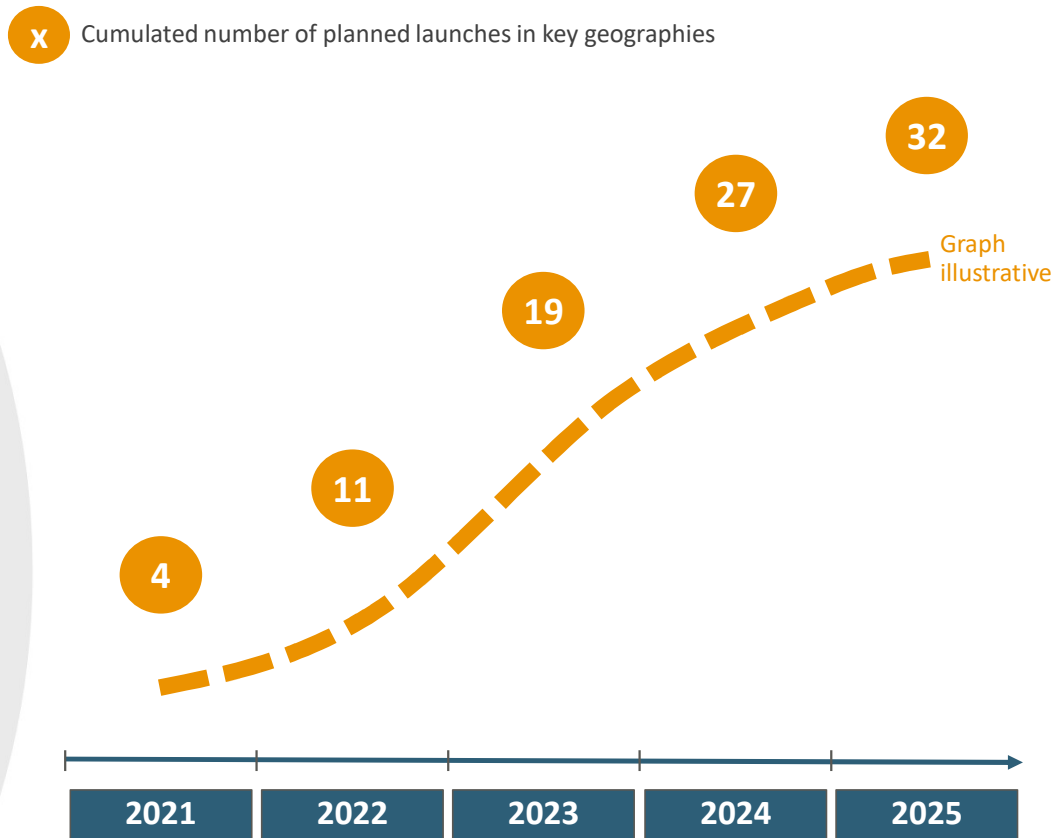


BIVV001 is developed and, if approved, will be commercialised in collaboration with Sanofi

1. Peak sales relate to revenue potential from Sobi territories by product 2. BIVV001 is currently under clinical investigation and the safety and efficacy have not been evaluated by any regulatory authority 3. US and Europe 4. Sobi has only financial rights, peak sales based on analyst report  
Source: Sobi



## 2. Capturing substantial value from our late-stage pipeline



5



Key geographies<sup>1</sup>

32




Launches in key geographies by 2025

### Examples of indications (illustrative)

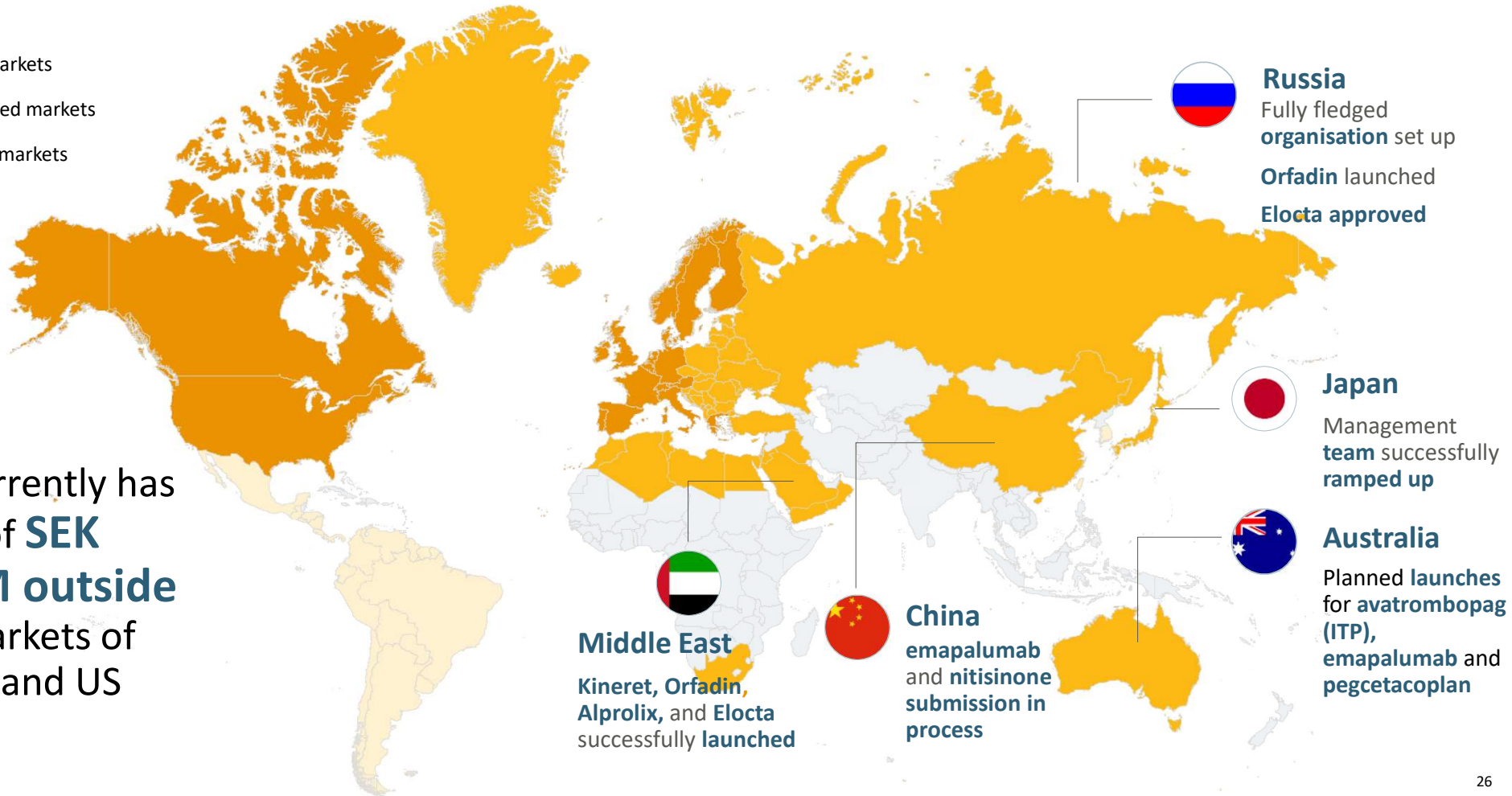
- avatrombopag, ITP
- avatrombopag, CLD
- pegcetacoplan<sup>2</sup>, PNH
- pegcetacoplan<sup>2</sup>, CAD
- pegcetacoplan<sup>2</sup>, IC-MPGN / C3G
- pegcetacoplan<sup>2</sup>, HSCT-TMA
- emapalumab, GvHD
- emapalumab, pHLH & sHLH
- SEL-212<sup>3</sup>, chronic refractory gout
- BIVV001<sup>4</sup>, HA
- nirsevimab<sup>5</sup>, RSV prevention

1. US, Europe, China, Japan, Russia 2. In collaboration with Apellis 3. Strategic licensing agreement with Selecta 4. In collaboration with Sanofi 5. Financial interest only, in collaboration with Astra Zeneca


### 3. We are building the next geographic growth platforms

-  Sobi core markets
-  Sobi extended markets
-  Sobi future markets

Sobi currently has **sales of SEK ~800M** outside core markets of Europe and US



In summary: we are now transitioning Sobi from a regional to a global leader in rare disease




**Lead in  
Haematology**



**Grow  
Immunology**



**Go global**



**Capture the  
value of our  
pipeline**



A large white circle with a small notch on its right side, containing the text "Innovation management at Sobi" in orange.

# Innovation management at Sobi

A small white circle.

**Ravi Rao**

Head of R&D and CMO

Building on Sobi's **rare strength** so we can transform patients' lives



### **Innovative and differentiated medicines**

- Medicines with novel mechanisms of action: first in class or best in disease
- Enabling a step change in therapy for unmet medical need



### **At the intersection of haematology and immunology**

- Lead haematology, build immunology and reap synergies between the two
- Understanding the needs of patients with rare disease across the world



### **Leadership in medicines development**

- Multiple indications and integrated life cycle management
- Use of digital health, companion diagnostics and genetics

We currently have 6 products in development, with 12 programs<sup>1</sup>

Phase 2	Phase 3	in Registration
<b>Gamifant / emapalumab</b> Secondary HLH malignancy	<b>Gamifant / emapalumab</b> Secondary HLH rheumatology	<b>Gamifant / emapalumab</b> Primary HLH RoW
<b>Gamifant / emapalumab</b> GvHD	<b>SEL-212 / pegadricase<sup>3</sup></b> Chronic refractory gout	<b>Kineret / anakinra</b> Deficiency of IL-1 receptor antagonist (DIRA) (US)
<b>Gamifant / emapalumab</b> Graft failure (GF)	<b>MEDI8897 / nirsevimab<sup>4</sup></b> RSV Prevention	<b>Doptelet / avatrombopag</b> Chronic immune thrombo-cytopenia ITP EU
<b>pegcetacoplan<sup>2</sup></b> HSCT-TMA	<b>BIVV001 / rFVIII-Fc-VWF-XTEN<sup>5</sup></b> Haemophilia A	<b>pegcetacoplan 2<sup>nd</sup> line<sup>2</sup></b> Paroxysmal nocturnal hemoglobinuria
<b>pegcetacoplan<sup>2</sup></b> ALS	<b>pegcetacoplan<sup>2</sup></b> CAD	
	<b>pegcetacoplan 1<sup>st</sup> line<sup>2</sup></b> Paroxysmal nocturnal hemoglobinuria	
	<b>pegcetacoplan<sup>2</sup></b> IC-MPGN and C3G	

1. Not all programs have been started 2. In collaboration with Apellis 3. Strategic licensing agreement with Selecta 4. Financial interest only, in collaboration with Astra Zeneca 5. BIVV001 is developed and, if approved, will be commercialised in collaboration with Sanofi

# Six innovative and differentiated medicines to address patient need across the spectrum of haematology and immunology

## Lead in haematology

**BIVV001**

Bioengineered to allow for more normal factor levels with weekly dosage



Convenient oral thrombopoietin Receptor Agonist

## Overlap between haematology and immunology



First-in-class treatment for IFN $\gamma$ -driven diseases



First-in-class treatment for C3 driven diseases

## Grow in immunology



Single-injection prophylaxis for all infants in their first RSV season



Novel combination for the treatment of chronic refractory gout

BIVV001

**Doptelet**  
(avatrombopag) tablets

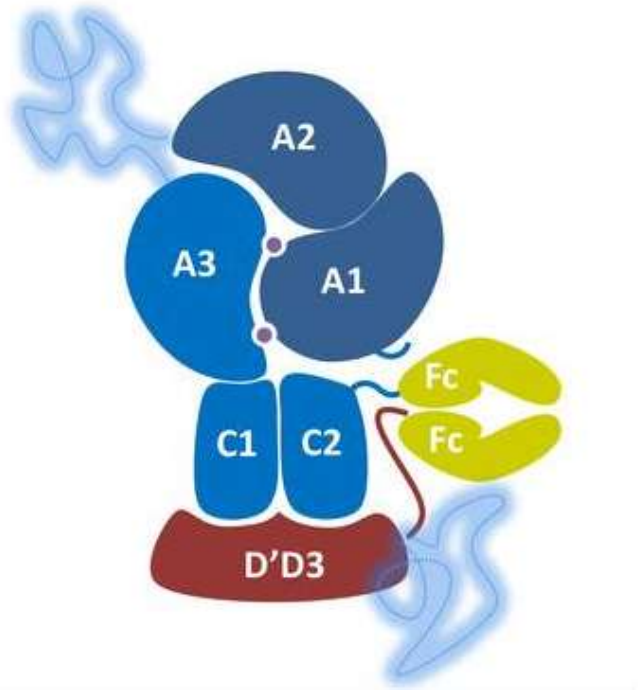
SEL 212

MEDI 8897

**gamifant**  
emapalumab-lzsg

pegceta-  
coplan

# BIVV001 is designed for more normal FVIII levels in HA



## Mode of Action

- Built on Fc fusion technology with added
  - von Willebrand factor domains
  - XTEN<sup>1</sup> polypeptides
- To result in high and sustained factor levels in circulation

## Designed profile

First product with once weekly dosing and factor level in normal range of FVIII for a sustained period in the week

High levels of physical activity possible with low risk for bleed (e.g. basketball, rugby<sup>2</sup>) when factor level in normal range

No additional product needed: single administration for prophylaxis through to surgery

BIVV001 is developed and, if approved, will be commercialised in collaboration with Sanofi. BIVV001 is currently under clinical investigation and the safety and efficacy have not been evaluated by any regulatory authority.

1. XTEN is a registered trademark of Amunix Pharmaceuticals, Inc. 2. Broderick CR, Herbert RD, Latimer J, et al. Association Between Physical Activity and Risk of Bleeding in Children With Hemophilia. *JAMA*. 2012;308(14):1452–1459. doi:10.1001/jama.2012.12727



# BIVV001 has the potential to normalise FVIII levels



## Disease Background:

- Haemophilia A is a genetic deficiency in clotting factor VIII
- Results in extensive bleeds, joint damage, low QoL



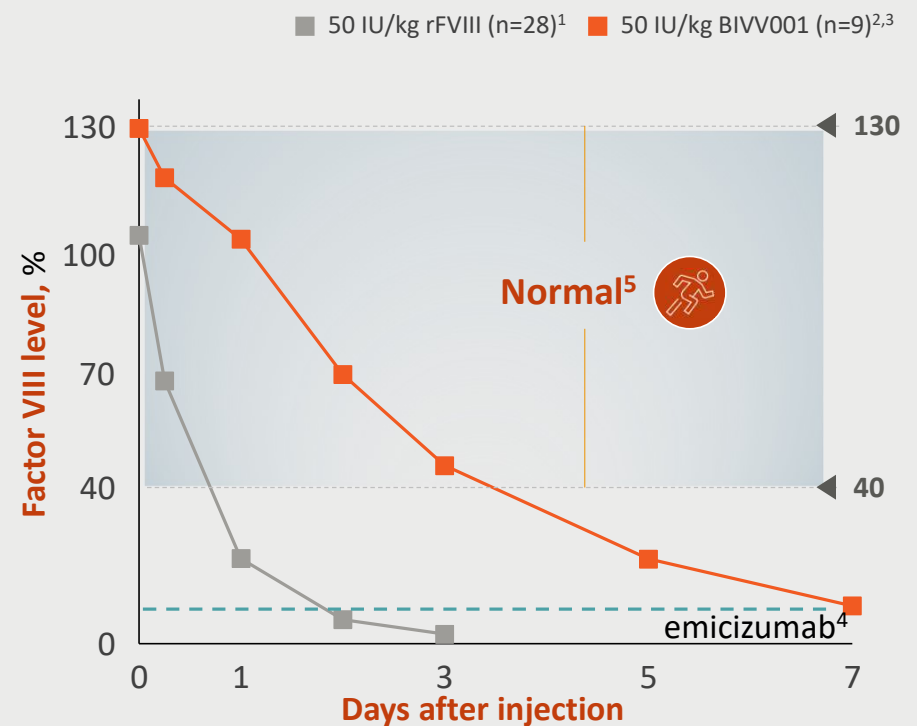
## Differentiation:

- BIVV001 has the potential to enable more normal factor activity levels for the majority of the week
- Short-half life factor therapies do not deliver high sustained factor activity levels
- With emicizumab FVIII normalization is not possible
- Non-factor therapies, e.g., emicizumab, show no evidence of joint protection

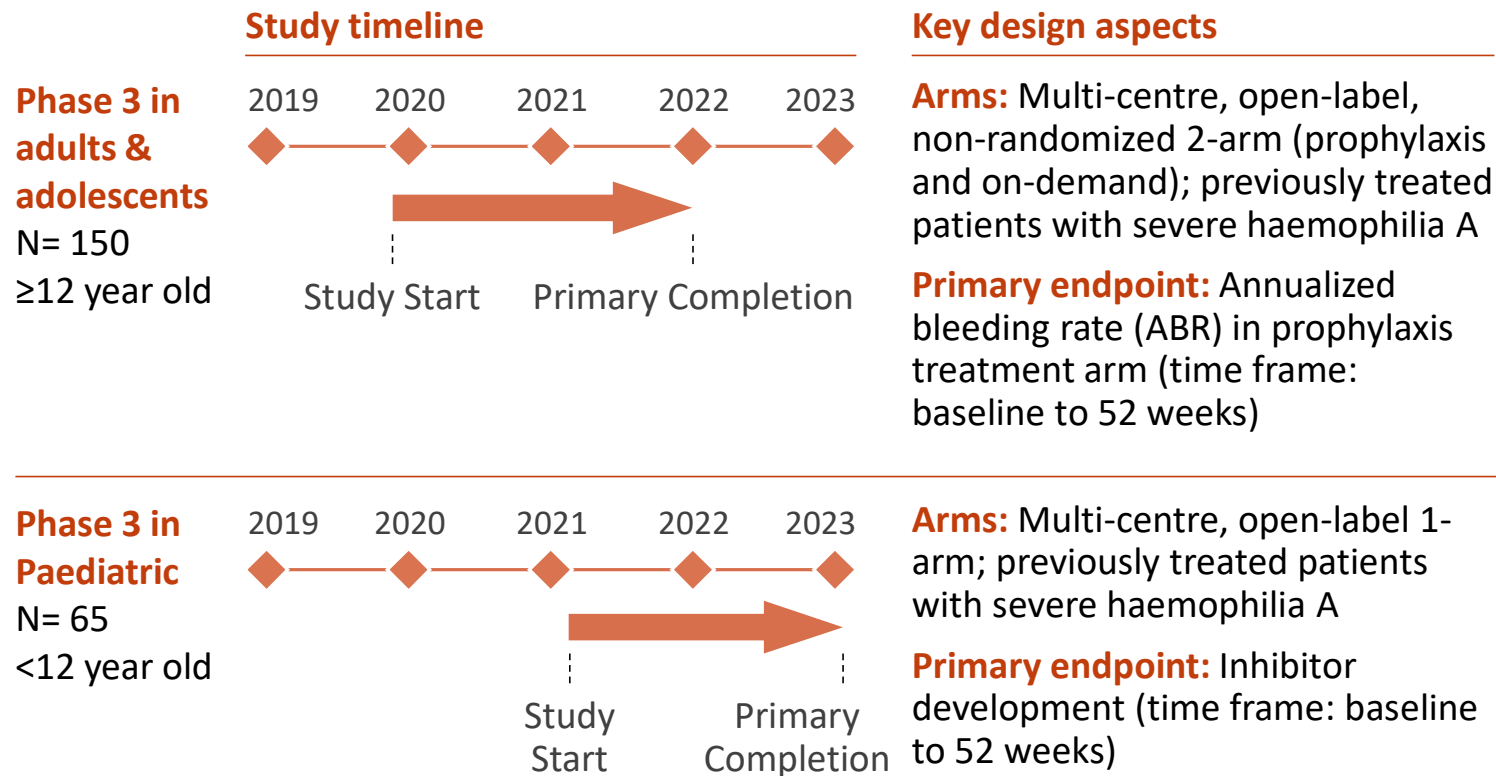
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1. Mahlangu et al. Blood 2014 2. Lissitchkov T et al. Haemophilia 2020;26(S2):55 3. Lissitchkov T et al. Blood 2019;134(S1):625; 4. Equivalent FVIII level, based on Lenting P et al, ISTH 2019, Lenting P et al, Blood Adv. 2020 5. A. Srivastava, E. Santagostino, et al., WFH Guidelines for the Management of Hemophilia, 3rd edition. Haemophilia. 2020;26(Suppl 6):1–158


## Normalisation of factor VIII levels



# Two major phase 3 studies underway - BIVV001 expected to be submitted in US in 2022



## Expected launch<sup>1</sup>

2023 Haemophilia A 

1. Only territories relevant to Sobi displayed

BIVV001

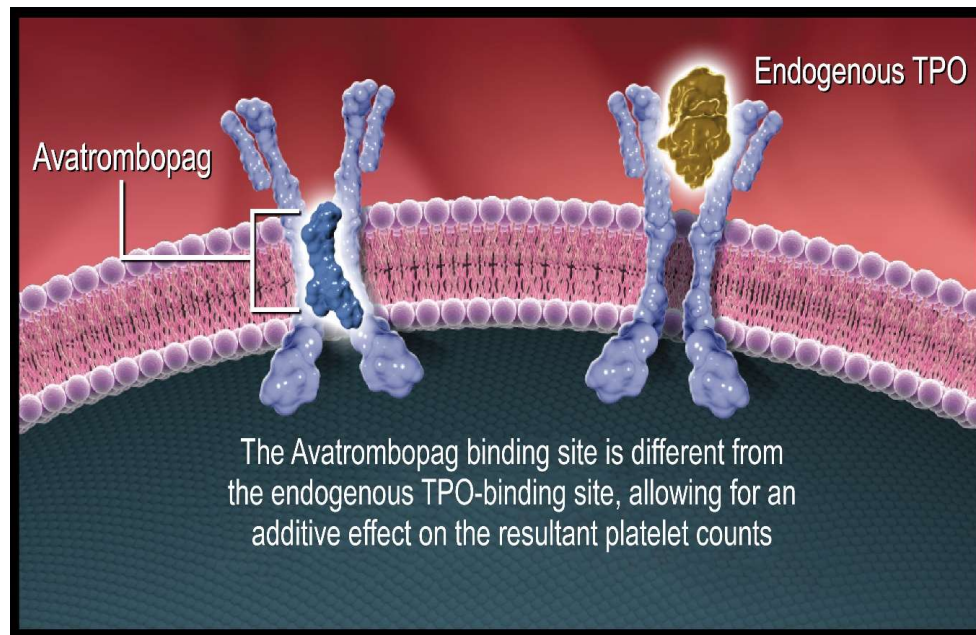
**Doptelet**  
(avatrombopag) tablets

SEL-212

MEDI 8897

gamifant®  
emapalumab-tzsgpegceta-  
coplan

# Doptelet could be a best-in-class treatment for CLD and ITP



## Mode of Action

- Second-generation small-molecule thrombopoietin receptor agonist (TPO-RA) stimulating platelet production
- Stimulates proliferation and differentiation of megakaryocytes from bone marrow progenitor cells resulting in increased production of platelets

## Profile

- Once daily oral dosing
- No dietary restrictions - convenient administration with food/regular meals
- No hepatotoxicity

# Doptelet can increase platelet numbers to significantly reduce need for platelet transfusions



## Disease background:

- Low levels of blood platelets can cause spontaneous bleeding
- Thrombocytopenia is caused by, e.g.:
  - Decreased production (e.g., chronic liver disease (CLD))
  - Increased destruction (e.g., immune thrombocytopenic purpura)



## Current TPO-RA treatments:

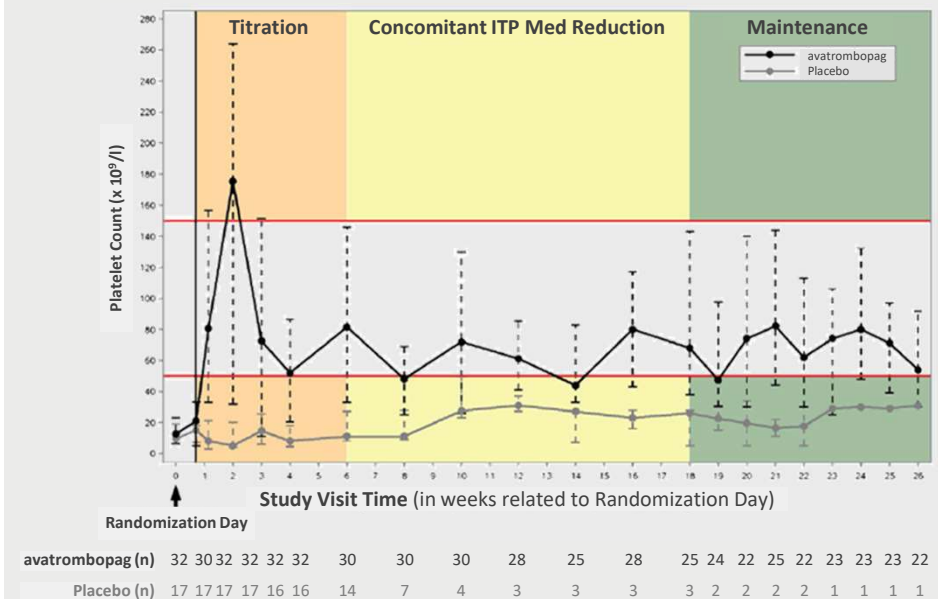
- eltrombopag, romiplostim



## Differentiation:

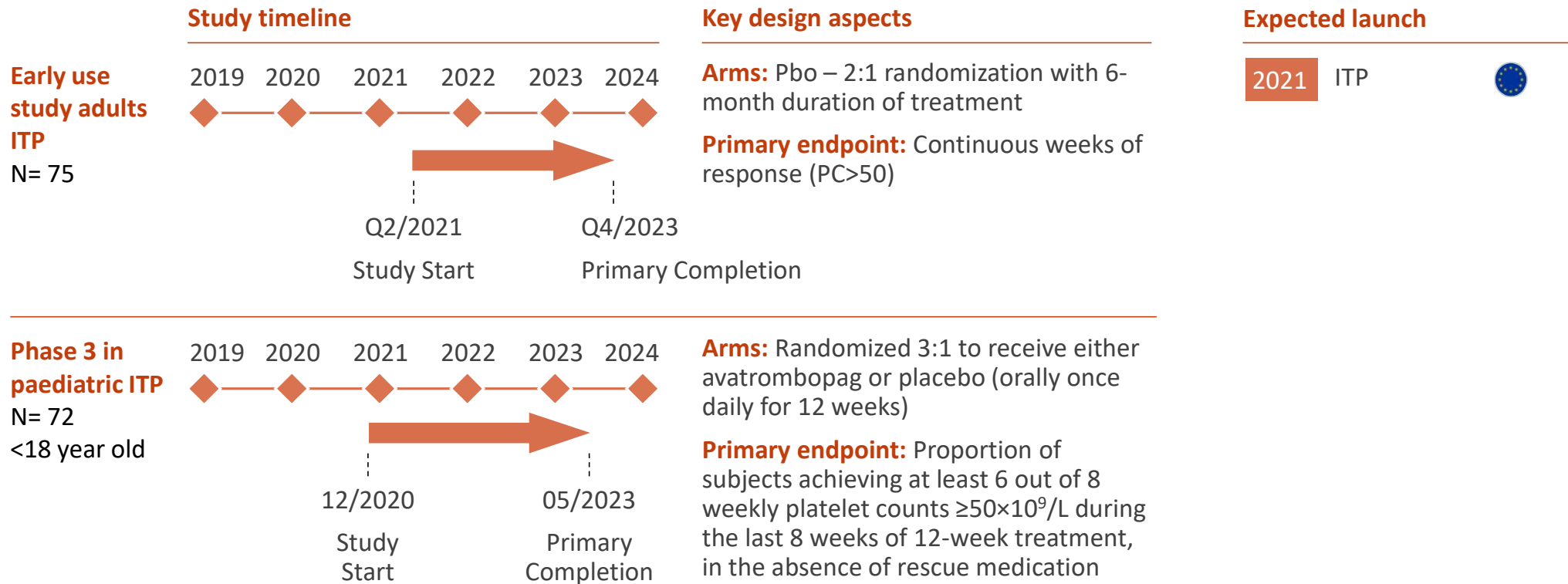
- Patient convenience: Doptelet as the only once daily oral TPO-RA approved for treatment of ITP without dietary restrictions<sup>1</sup>
- No hepatotoxicity

## Median platelet counts during trial<sup>2</sup>



1. Approved for ITP in the US and awaiting approval in the EU See prescribing information in the applicable territory for the approved indication 2. Jurczak, et al. Br J Haematol. 2018;183(3):479-490

# We have finished the majority of the development with focus on ongoing lifecycle studies



BIVV001

**Doptelet.**  
(avatrombopag) tablets

SEL-212

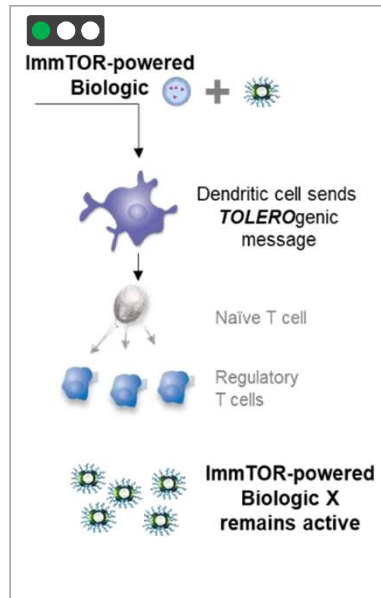
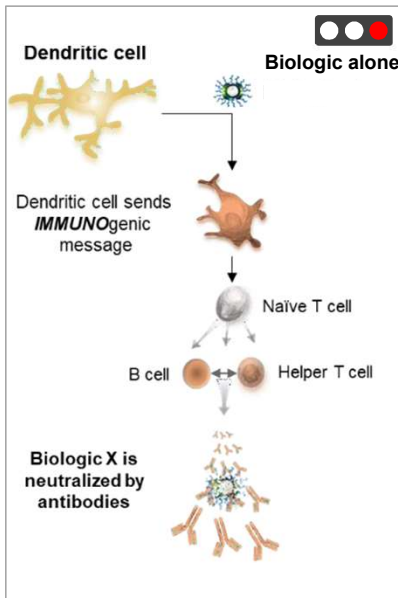
MEDI 8897

**gamifant**  
emapalumab-tzsg

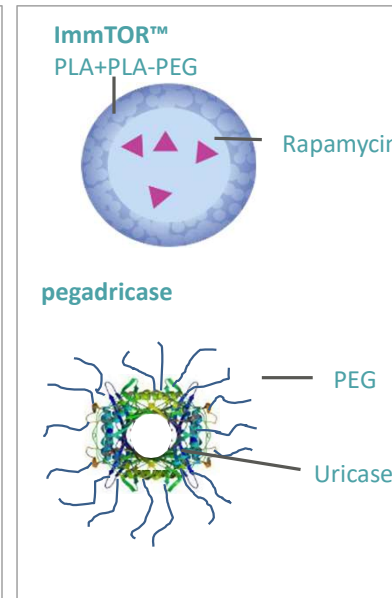
pegceta-  
coplan

# SEL-212 is a novel combination product candidate to improve treatment of chronic refractory gout

**ImmTOR™<sup>1</sup>** has the potential to enable sustained therapeutic activity of biologic therapies and unlock their potential



**SEL-212:** ImmTOR™ co-administered with pegadricase



## Mode of Action

- ImmTOR™ co-administered with pegylated uricase to reduce serum uric acid (SuA) and inhibit antibody development

## Designed profile

- Once-monthly infusion
- Reduced immunogenicity
- Sustained efficacy

1. ImmTOR™ is a registered trademark by Selecta Biosciences, Inc.

# Phase 2 results show potential for greater reduction of SUA



## Disease Background:

- Chronic gout: serum uric acid levels remain elevated and flares continue despite standard treatment
- Painful inflammatory arthritis: mono- or polyarticular
- Presence of subcutaneous tophi



## Current Treatments:

- pegloticase; efficacy rates of ~42%;
  - ~50% of patients can tolerate full treatment course (6m)



## Differentiation:

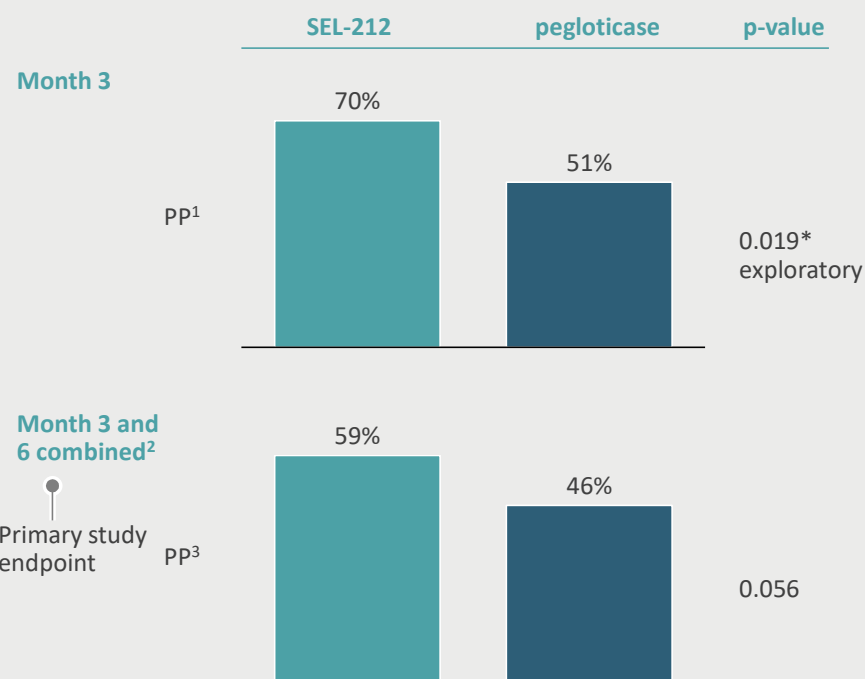
- Less frequent dosing (monthly vs every other week)
- Statistically significantly greater overall reduction in mean serum uric acid (SUA) levels in SEL-212 versus pegloticase
- Higher efficacy rates in patients with tophi versus pegloticase
- No need for oral immunosuppression with MMF or MTX

Note: Per FDA guidance on Statistical Considerations for Clinical Trials During the COVID-19 Public Health Emergency (June 2020), the statistical analysis plan was modified and submitted to FDA prior to database lock to address the potential impact of the COVID-19 pandemic on statistical analysis. This was necessary due to increased protocol deviations in the intention-to-treat (ITT) population observed during the ongoing COVID-19 pandemic. Data are therefore presented per protocol (PP) and ITT

1. Press release by Sobi and Selecta Biosciences on topline data of SEL-212 from phase 2 COMPARE study 2. SEL-212 showed a numerically higher response rate on the primary endpoint during months 3 and 6 combined, but did not meet the primary endpoint of statistical superiority 3. Presented per protocol

## COMPARE trial results (SEL-212 vs pegloticase)<sup>1</sup>

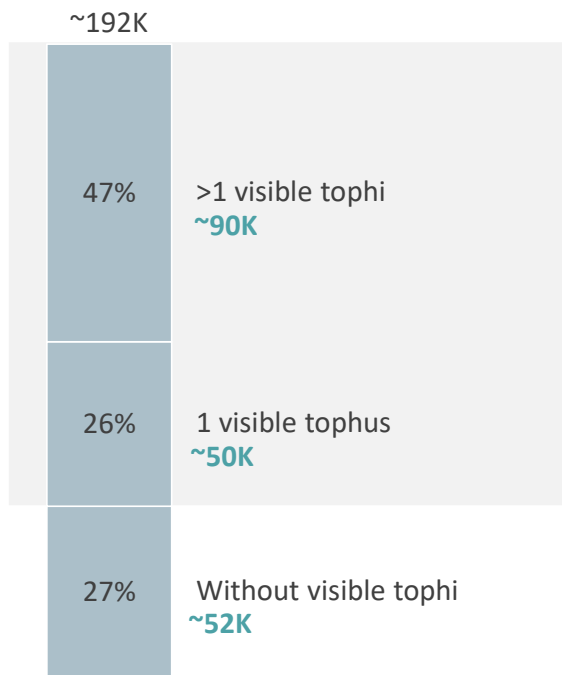
Patients with <6 mg/dl SUA for at least 80% of the evaluation time



# Patients with tophi have significantly higher responder rates for SEL-212 as compared to pegloticase based on phase 2 data

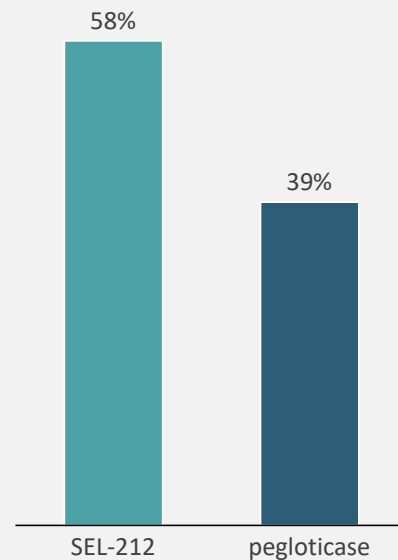
## Chronic refractory gout patients

>70% have visible tophi US (2030)

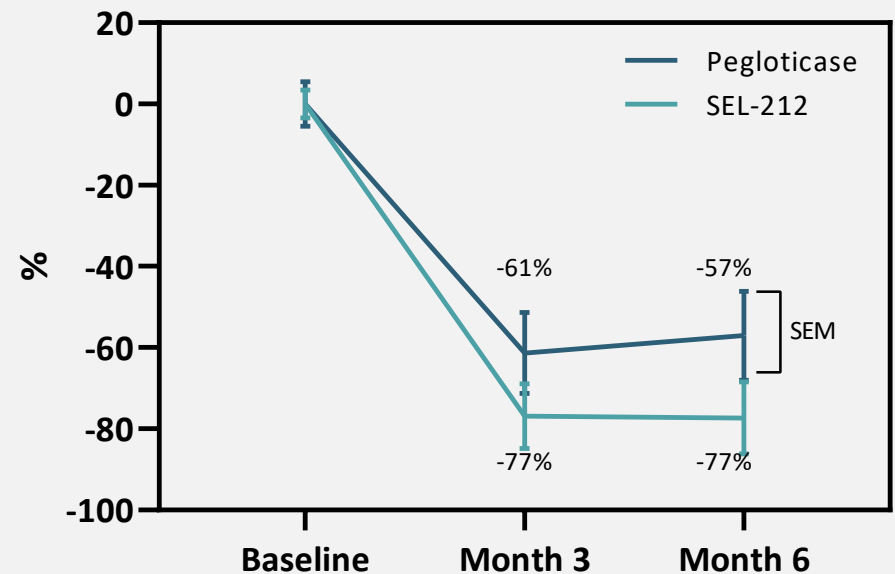


## Study results for tophi patients<sup>1</sup>

Treatment response rates<sup>2</sup>  
(PP, months 3 and 6 combined)



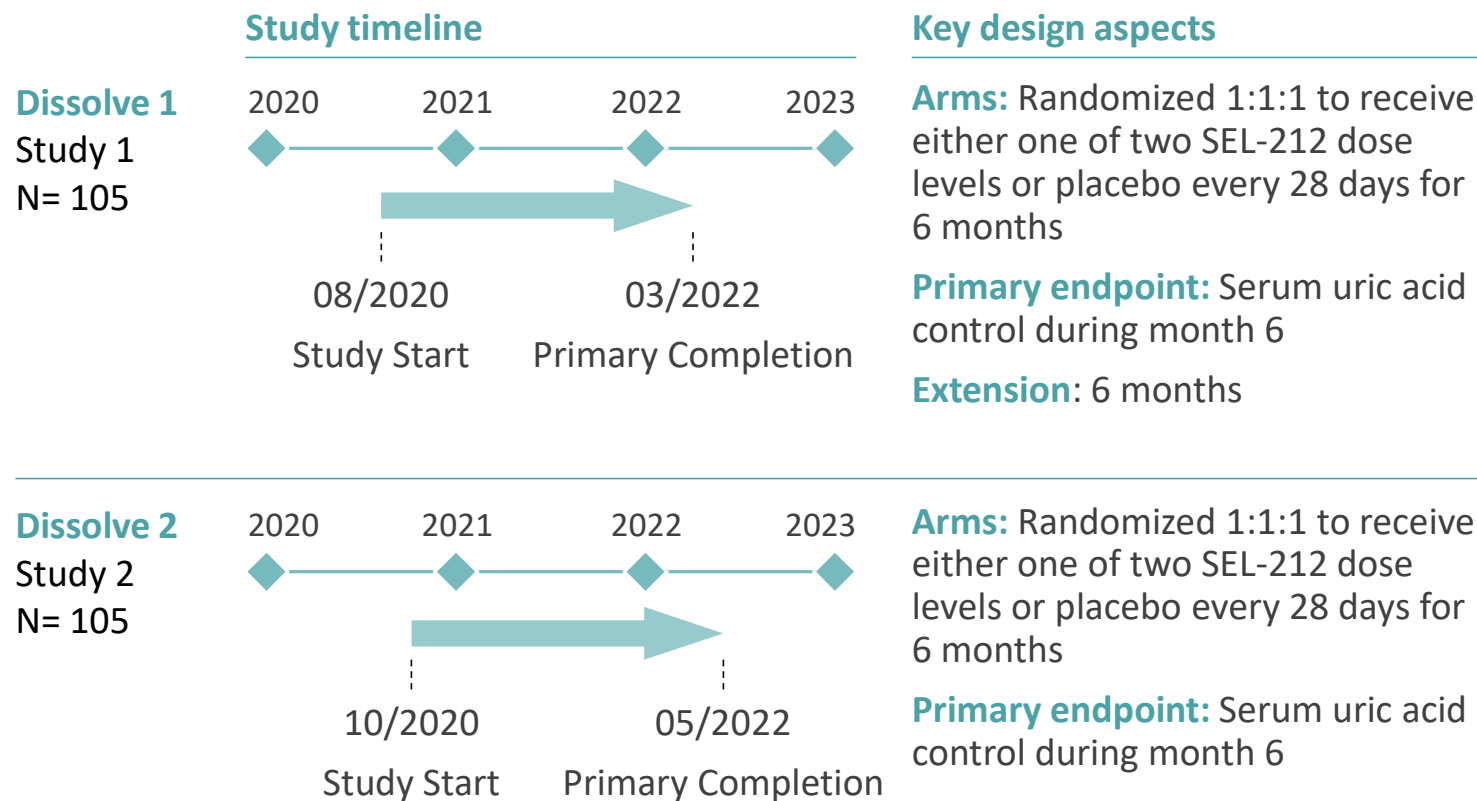
Serum Uric Acid (SUA) percent reduction<sup>3</sup>  
(PP, baseline and months 3, 6)




1. COMPARE study 2. Patients with <6mg/dl SUA for at least 80% of evaluation time 3. Computed as the mean SUA level during treatment period minus baseline SUA level divided by baseline SUA level multiplied by 100



# Two phase 3 studies on SEL-212 have been launched this year



## Expected launch

2023 Chronic Refractory Gout 

BIVV001

**Doptelet.**  
(avatrombopag) tablets

SEL-212

**MEDI 8897**

**gamifant**  
emapalumab-tzsg

**pegceta-**  
**coplan**

## About Synagis and MEDI8897

- The 2018 acquisition from AstraZeneca included rights to Synagis® (palivizumab) in the US as well as rights to participate in 50 per cent of the future earnings of the candidate drug MEDI8897 in the US
- Synagis is a medicine for the prevention of serious lower respiratory tract infections (LRTI) caused by respiratory syncytial virus (RSV) in high-risk infants and is the only approved preventative medicine for the condition
- MEDI8897 is a follow-on candidate to Synagis and a monoclonal antibody (mAb) being investigated for the prevention of LRTI caused by RSV in a broad infant population
- MEDI8897 derisks future revenue expectations for Synagis

MEDI8897 is being developed by AZ and commercialised by Sanofi. Sobi has an option to the rights to 50% of the profits and losses of the product in the US

BIVV001

  
Doptelet
  
(avatrombopag) tablets

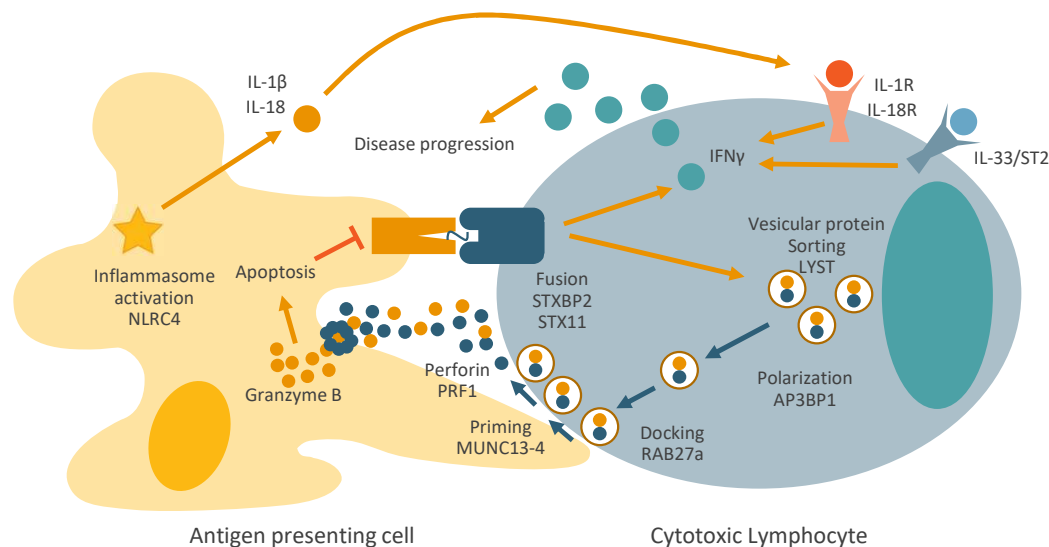
SEL-212

MEDI 8897

  
gamifant
  
emapalumab-lzsg


  
pegcetacoplan

# Gamifant is the only treatment to target and neutralise IFN $\gamma$ – a major proinflammatory cytokine



## Mode of action

- Monoclonal antibody to neutralise interferon gamma (IFN $\gamma$ )
- Aberrant IFN $\gamma$  expression is associated with a number of autoinflammatory and autoimmune diseases such as HLH<sup>1</sup> – a severe, sometimes life-threatening systemic inflammatory syndrome

## Profile

- Approved for primary HLH in US in Q4 2018<sup>2</sup>
- Three further indications in development: secondary HLH, Graft Failure and GvHD

1. Hemophagocytic lymphohistiocytosis. 2. Approved for the treatment of adult and pediatric patients with primary HLH with refractory, recurrent or progressive disease or intolerance with conventional HLH therapy, in US. See Gamifant prescribing information, FDA.

Sources: Jordan MB, et al.: How I treat hemophagocytic lymphohistiocytosis. Blood. 2011; Price B et al. Haemophagocytic lymphohistiocytosis: a fulminant syndrome associate with multiorgan failure and high mortality that frequently masquerades as sepsis and shock. S Afr Med J. 2014

# pHLH is a life-threatening disease caused by genetic mutations



## Disease Background<sup>1</sup>:

- Caused by multiple genetic mutations,
  - ~55% described, ~45% unknown
- Higher prevalence among children
- Mostly triggered by infection



## Current Treatments and differentiation:

- Gamifant is currently the only FDA approved therapy

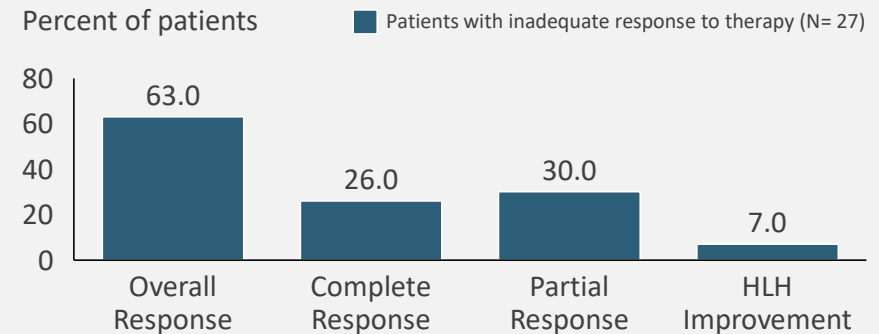


## Differentiation:

- Seeking approval in other countries (ex-EU)
- Further exploration of genetic databases to further inform patient care

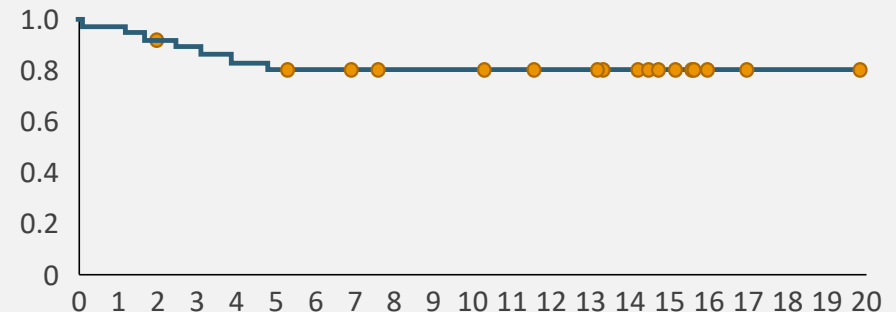
1. Jordan et al Blood 2011; 118 (15): 4041 2. Locatelli et al N Engl J Med 2020; 382 (19): 1811

## NI-0501-04 Study: response at wk 8 (end of treatment)<sup>2</sup>



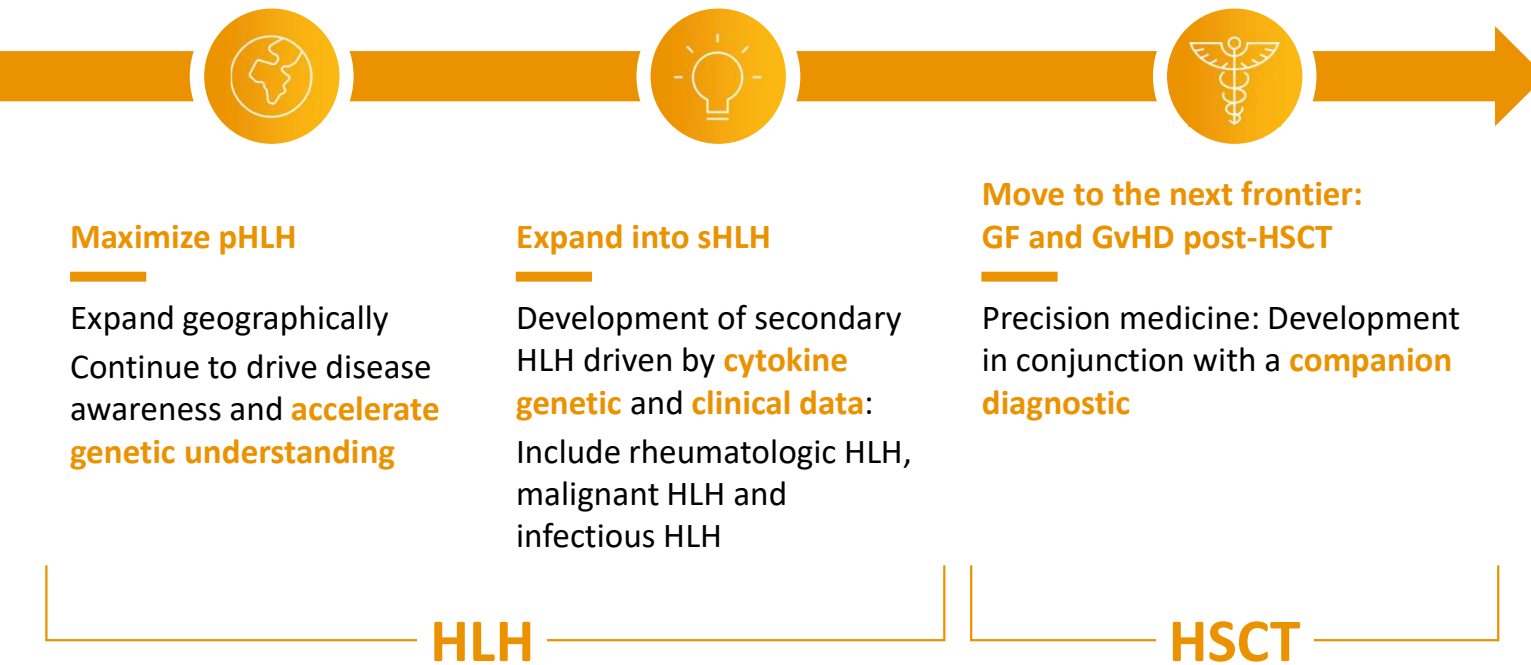
**Overall response** in previously treated patients was **significantly higher than the prespecified null hypothesis** (p=0.02)

## NI-0501-05 Study: survival at 12m<sup>2</sup>




At last observation, 20/27 (74%) patients were alive with an **estimated probability of survival of 73.4% (95% CI 52.2–86.4) at 12 months**

# We are expanding emapalumab in HLH and beyond into diseases of high unmet need

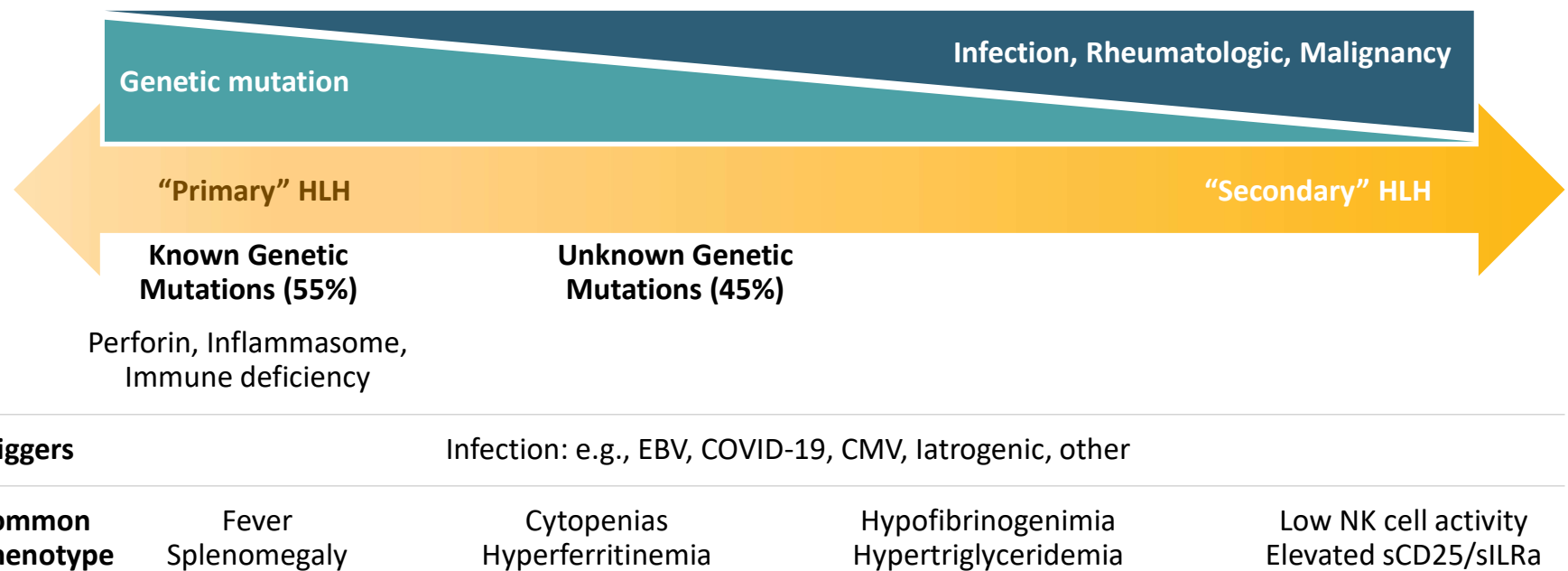


## Expected launch

2021-2022	pHLH	
2023	sHLH	
2024	GvHD	

# Many cases of HLH lie on a spectrum between sHLH and pHLH

We are gaining a deeper understanding of the impact of **unknown genetic mutations** and **infectious triggers** in the **pathogenesis of HLH**



# Emapalumab could be a breakthrough treatment for rheumatologic HLH



## Disease Background:

- Severe, potentially fatal condition associated with excessive activation of macrophages and T cells leading to an overwhelming inflammatory reaction<sup>1</sup>



## Current Treatments:

- No approved treatment to prevent or arrest rheumatological HLH (MAS in sJIA<sup>2</sup>) and AOSD



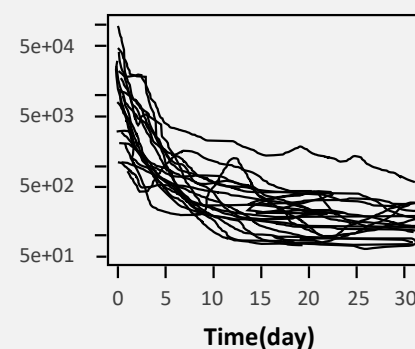
## Differentiation:

- First IFN-targeted therapy for rheumatological HLH

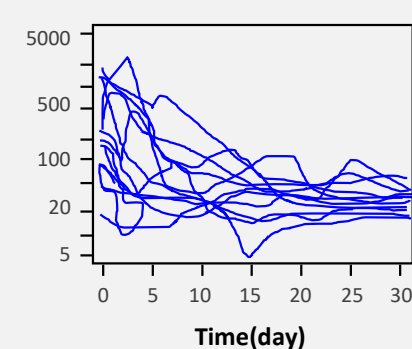
## Study NI-0501-06 MAS in SJIA/AOSD

- Gamifant started on day 0:
  - 14/14 patients had a clinical response
  - Improvement in multiple lab parameters

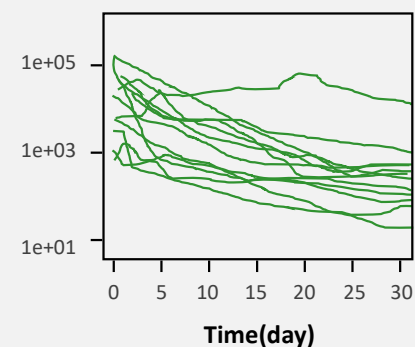
CXCL9 (pg/ml)



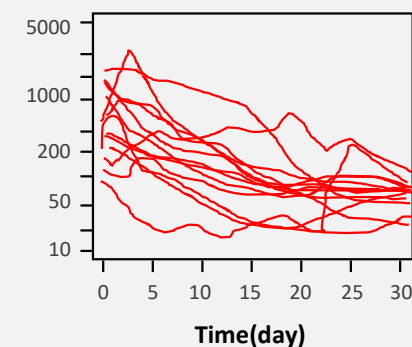
AST (IU/L)



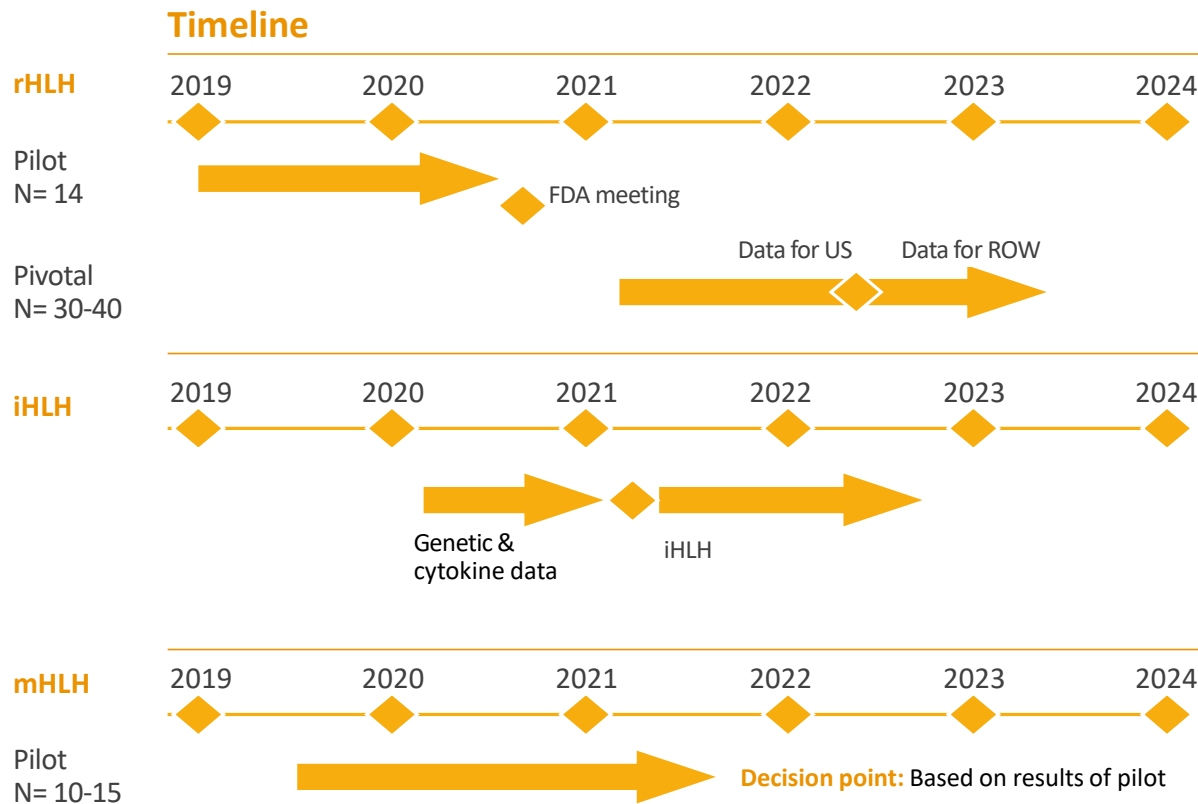
Ferritin (UG/L)



ALT (IU/L)



# We are carrying out an extensive development plan for sHLH



## Key design aspects

**Arms:** Single-arm, open label

**Endpoints:** MAS remission, duration of response

**Arms:** Single-arm, open label, observational run-in phase

**Endpoints:** MAS remission, duration of response

**Genetic data mining/phenotype identification** will guide design and patient selection criteria

**Arms:** Single-arm, open label, adaptive

**Endpoints:** ORR, survival, duration of response



# Development of emapalumab for graft failure to start in Q1 2021



## Disease Background:

- **Primary GF:** lack of engraftment of donor cells following Hematopoietic stem cell transplantation (HSCT); high mortality
- **Secondary GF:** loss of graft after initial engraftment



## Current Treatments:

- Repeat graft



## Differentiation:

- First IFN-targeted therapy for immune-related graft failure



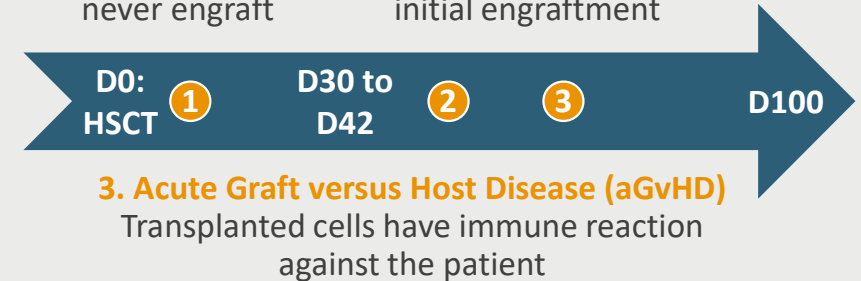
Three possible complications following HSCT could be treated with emapalumab

### 1. Primary GF (pGF)

Transplanted cells never engraft

### 2. Secondary GF (sGF)

Loss of graft after initial engraftment



# Collaboration with bioMérieux to develop a Companion Diagnostic

## Research collaboration for a CXCL9 companion diagnostic assay for Gamifant for GvHD

**VIDAS™<sup>1</sup> CXCL9 for the prevention of graft failure post HSCT** received breakthrough device designation by FDA in May 2020

Fast turnaround and hands off

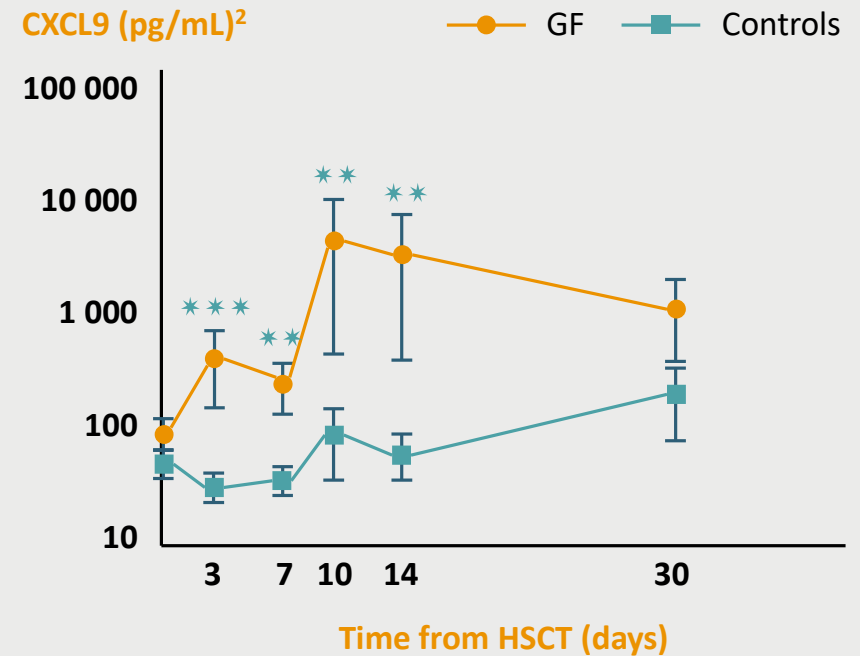
Could predict graft failure following HSCT as well as future indications



1. Vidas™ is a registered trademark of bioMérieux 2. Merli et al., 2019. Haematologica  
Note: CoDx = companion diagnostics; HSCT = Hematopoietic stem cell transplantation

### Increased serum levels of IFN $\gamma$ and CXCL9 are predictors of graft failure

- As early as day 3 post-transplantation, patients developing GF had elevated serum CXCL9
- Serum CXCL9 appears to be an early biomarker for the risk of graft failure



# Enabling development of emapalumab in GvHD to start in 2021



## Disease Background:

- GvHD is a potentially serious complication of allogeneic HSCT
- Donor T cells attack the host which leads to multi-organ damage and can be life-threatening



## Current Treatments:

- Ruxolitinib currently approved

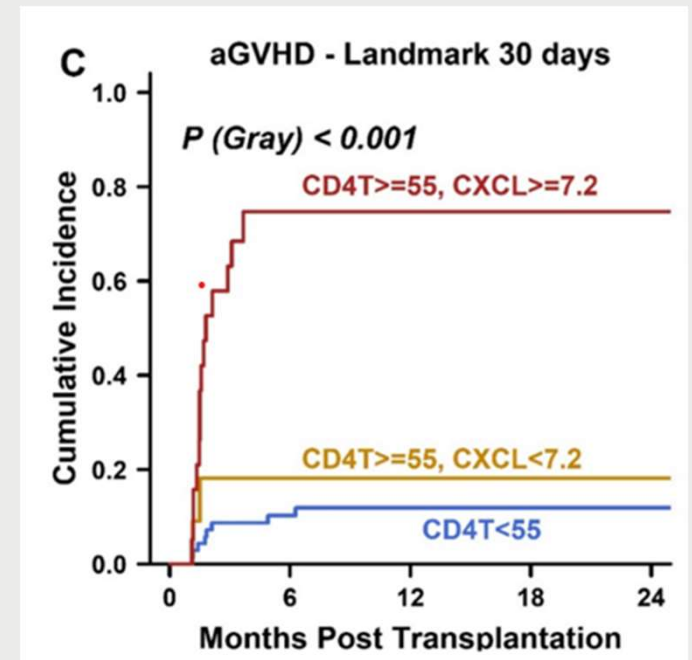


## Differentiation:

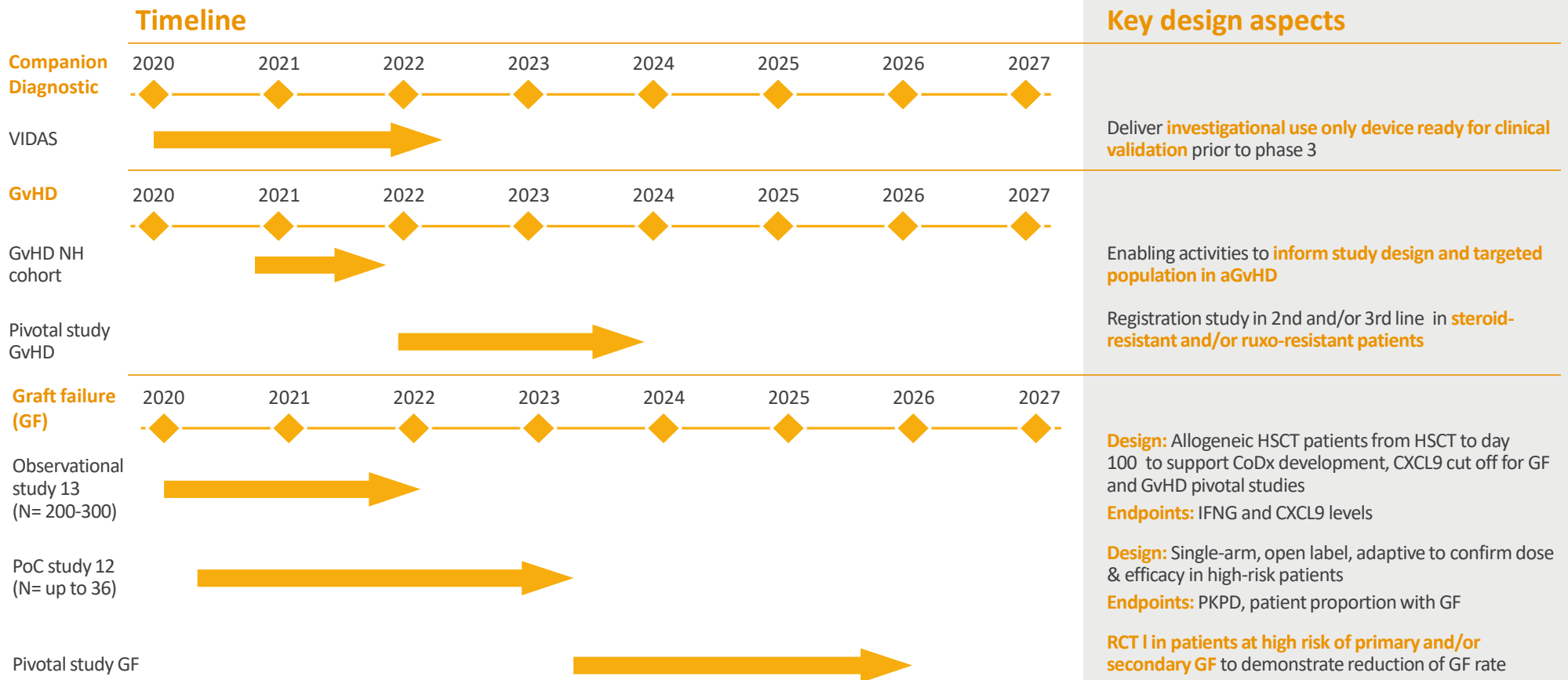
- First IFN-targeted therapy for GvHD resistant to SOC

Source: Merli et al., 2019. Haematologica. Volume 104(11):2314-2323, McCurdy et al., 2020

CXCL9 levels at d28 post transplant are predictive of 1 year cumulative incidence of aGvHD



# Development program for GvHD to start in 2021 with expected launch in 2024



# Anakinra & emapalumab have the potential to address key pathways in COVID-19 CSS<sup>1</sup>

**Immuno-101** POC study of anakinra or emapalumab vs. SOC has been **stopped**

Ongoing clinical trial activity with **anakinra**:

- **18+ ongoing or planned RCT studies** of anakinra in moderate-severe disease
- **10 studies supported by Sobi** across US and EU; 1,000/~2,500 patients recruited



BIVV001

  
Doptelet.  
(avatrombopag) tablets

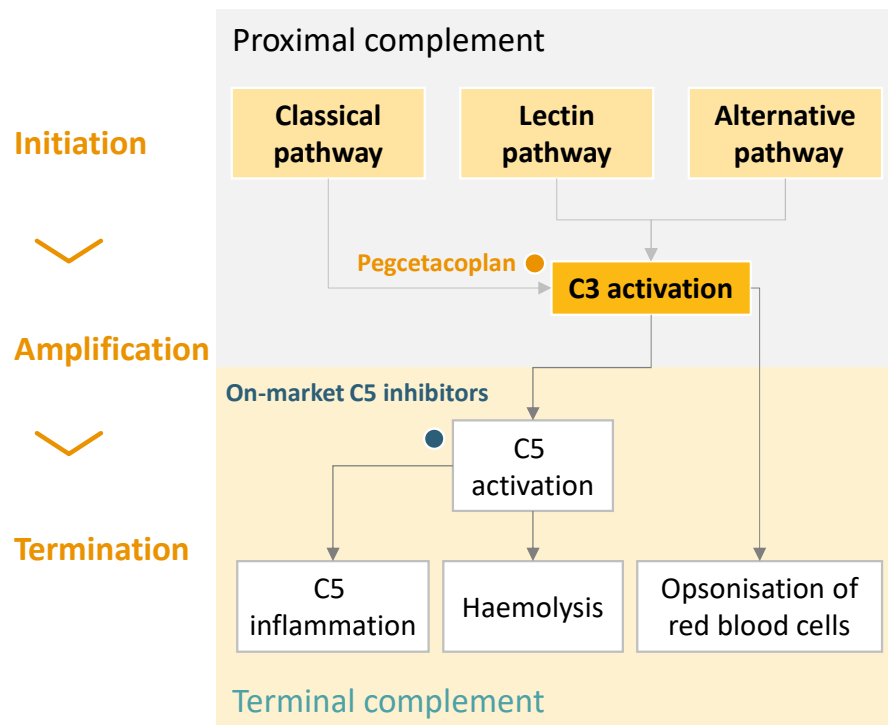
SEL-212

MEDI 8897

  
gamifant®  
emapalumab-tzsq


  
pegcetacoplan

Pegcetacoplan is a targeted C3 therapy – it is therefore modulating a key component of the complement system



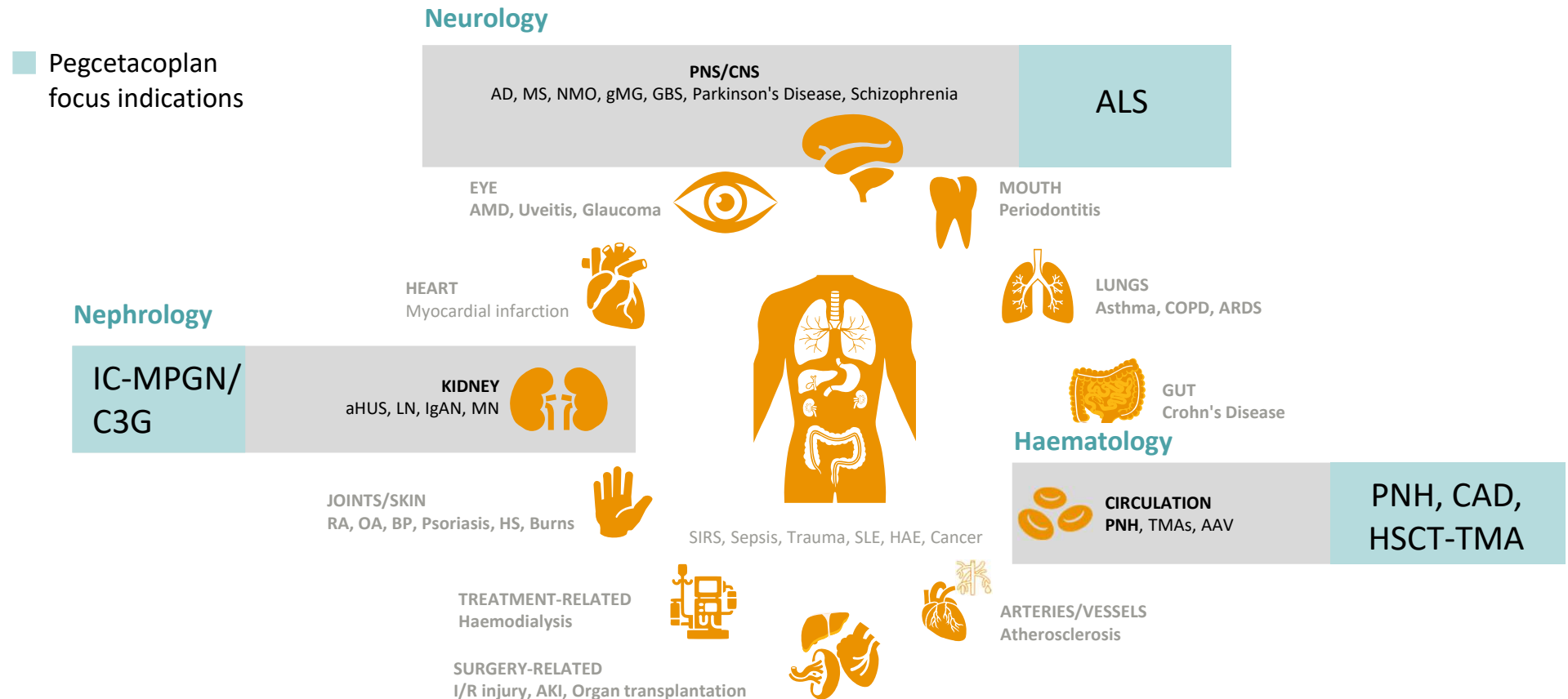
## Mode of Action

- Investigational, targeted C3 therapy designed to regulate excessive complement activation
- Uncontrolled complement activation is involved in the pathology of a broad range of disorders including various autoimmune and immune complement driven diseases

## Designed profile

- Potential to elevate the standard of care in PNH
- Met primary endpoint and safety profile consistent with eculizumab in PEGASUS trial
- Subcutaneous administration

# The complement system underlies many diseases; in addition to PNH, 3 others are part of the initial focus for pegcetacoplan



Source: Modified based on Zelek et al., Compendium of current complement therapeutics, Molecular Immunology 114 (2019) 341–352

# Paroxysmal Nocturnal Haemoglobinuria (PNH): Superior improvement in Hb compared to eculizumab<sup>1</sup>



## Disease Background (PNH):

- Acquired, rare, chronic, life-threatening blood disorder associated with abnormally low hemoglobin levels and transfusion dependence due to hemolysis
- Symptoms include severe fatigue, abdominal pain, difficulty breathing, and hemoglobinuria



## Current Treatments:

- C5 inhibitors

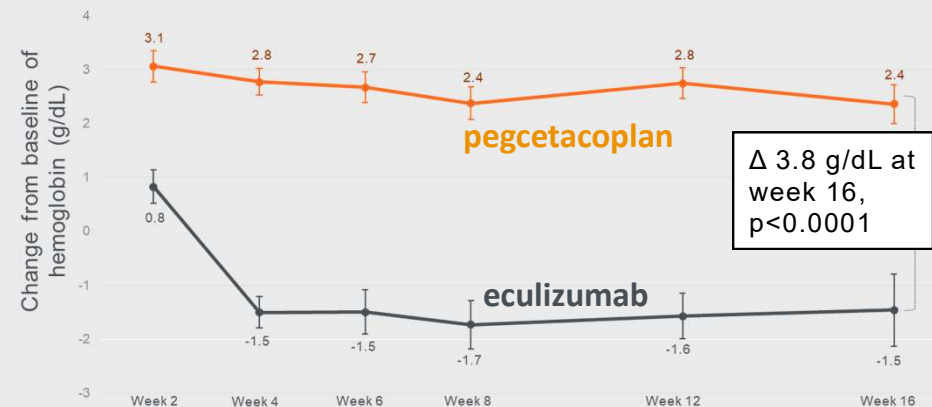


## Differentiation:

- Superiority on improving Hb vs eculizumab due to effects on intra- and extra-vascular haemolysis
- Substantial improvement in other haematological and clinical parameters vs eculizumab

## PEGASUS Study vs eculizumab: Week 16

Change from baseline hemoglobin in patients with a suboptimal response to eculizumab



1. Based on PEGASUS-study: 71% of pegcetacoplan-treated patients achieved LDH normalization vs. 15% of eculizumab-treated patients. LS Mean (+/- SE) plot of change from baseline in hemoglobin using MMRM model over time – randomized controlled period (ITT set)



# Highly targeted treatment in Cold Agglutinin Disease (CAD)



## Disease Background:

- Chronic and severe red blood disorder driven by extravascular hemolysis (IgM)
- Symptoms include anemia, transfusion requirements, and increased risk of thrombotic events like stroke or heart attack



## Current Treatments:

- No therapies approved or indicated to treat CAD



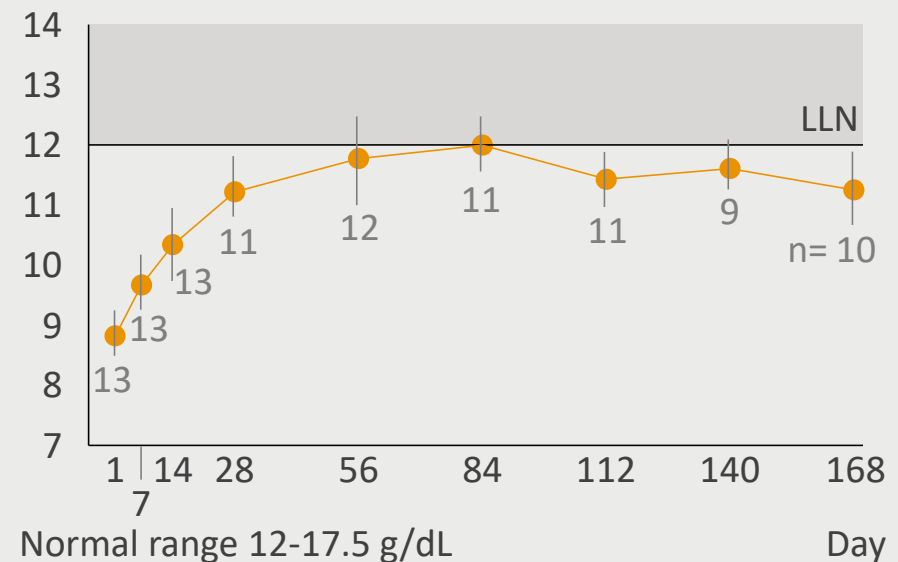
## Differentiation:

- Expected to be first targeted C3 treatment for CAD

## Interim Results: PLAUDIT Study, a phase 2 study n=24

**Rapid, sustained, and durable increase in hemoglobin in response to pegcetacoplan**

CAD hemoglobin, g/dL



# One of the first targeted therapies in HSCT-associated Thrombotic Microangiopathy (TMA)



## Disease Background:

- HSCT-TMA is a rare inflammatory and thrombotic condition characterized by hemolytic anemia, thrombocytopenia, and evidence of multiorgan damage, particularly renal dysfunction<sup>1</sup>
- C3 is believed to play a critical role in TMA based on proinflammatory and procoagulant properties of C3a and C3b<sup>2</sup>



## Current Treatments:

- No approved therapies



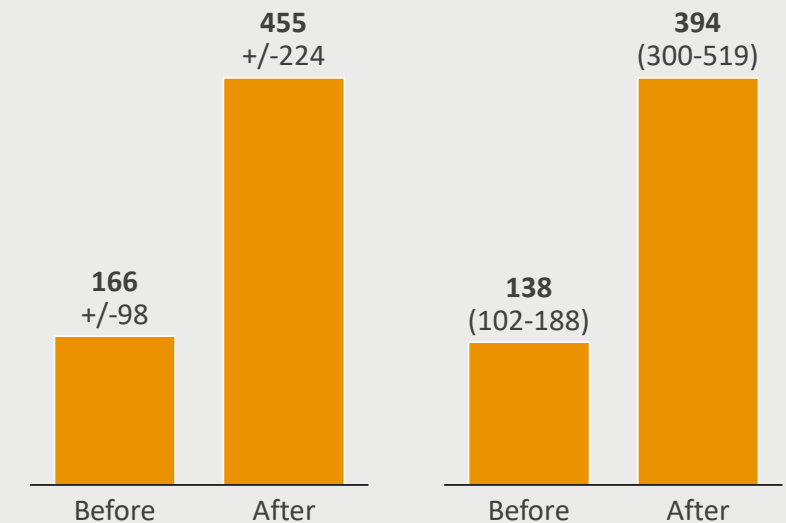
## Differentiation:

- First targeted C3 treatment for HSCT-TMA

C3b (ng/mL)

Mean

Median



Elevated C3b levels in patients developing TMA post-HSCT

Qi et al. 2017

# First line treatment in IC-MPGN and C3 Glomerulopathy<sup>1</sup>



## Disease Background:

- Rare kidney diseases caused by excessive complement activation that can lead to kidney failure
- C3G is associated with a need for recurrent transplant in as many as 85%
- Classical and alternative pathways implicated in IC-MPGN



## Current Treatments:

- No approved therapies



## Differentiation:

- First targeted C3 treatment for C3G

## DISCOVERY Study: Week 48\*

	Baseline Mean (SE)	Week 48 Mean (SE)	Difference
24-hour uPCR, mg/mg	3.48 (0.82)	0.93 (0.27)	(73.3%)

\*In five C3G patients; three patients were excluded from the analysis due to self-reported non-compliance or study drug interruption

# Potentially registrational phase 2 study design laid out for ALS<sup>1</sup>



## Disease Background:

- Neurodegenerative disease that results in progressive muscle weakness and paralysis due to the death of nerve cells in the brain and spinal cord
- High levels of C3 throughout motor system of patients may contribute to neuroinflammation and death of motor neurons



## Current Treatments:

- No approved therapies have been shown to stop or reverse disease progression



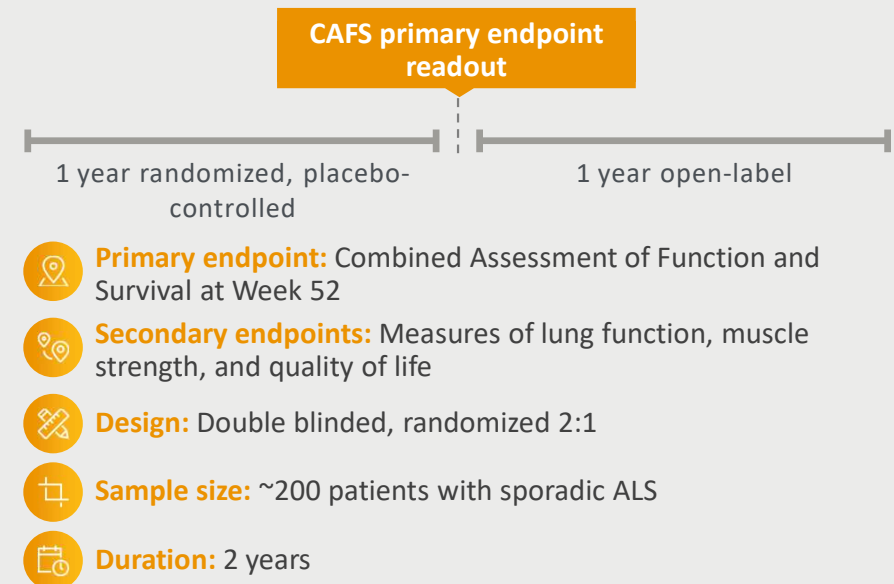
## Differentiation:

- First targeted C3 treatment for ALS

1. Amyotrophic Lateral Sclerosis (ALS)









Source: Arthur K et al., Nat Commun, 2016, Vol 7, article 12408

## Potentially Registrational Phase 2 Study Design

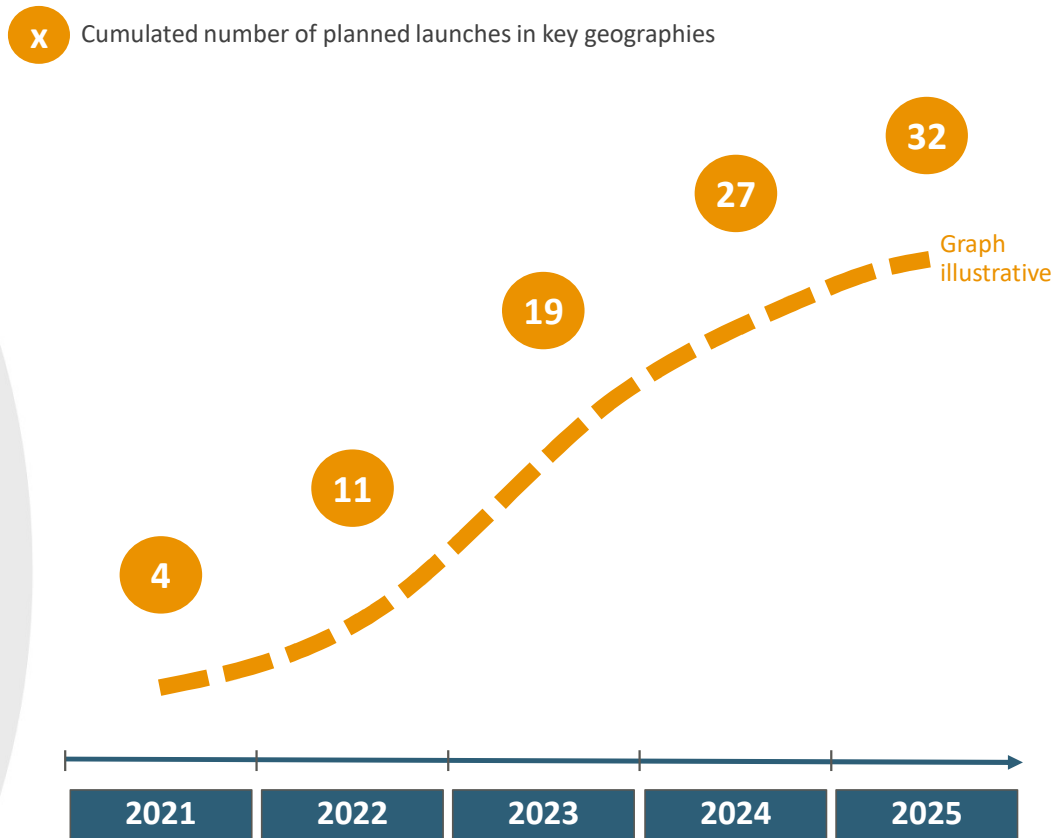


# Our clinical development program is on the way to launch pegcetacoplan in 5 indications by 2024

 Sobi leads development

Category	Disease	Phase 2	Phase 3	Expected launch
Haematology	PNH			2021 
	CAD		 Initiate phase 3 study in 2021	
	HSCT-TMA	 Initiate phase 2 study in 2021		
Nephrology	IC-MPGN / C3G		 Initiate phase 3 study in 2021	
Neurology	ALS			

# Capturing substantial value from our late-stage pipeline



5



Key geographies<sup>1</sup>

32

Launches in key geographies by 2025

## Examples of indications (illustrative)

avatrombopag, ITP

avatrombopag, CLD

pegcetacoplan<sup>2</sup>, PNH

pegcetacoplan<sup>2</sup>, CAD

pegcetacoplan<sup>2</sup>, IC-MPGN / C3G

pegcetacoplan<sup>2</sup>, HSCT-TMA

emapalumab, GvHD

emapalumab, pHLH & sHLH

SEL-212<sup>3</sup>, chronic refractory gout

BIVV001<sup>4</sup>, HA

nirsevimab<sup>5</sup>, RSV prevention

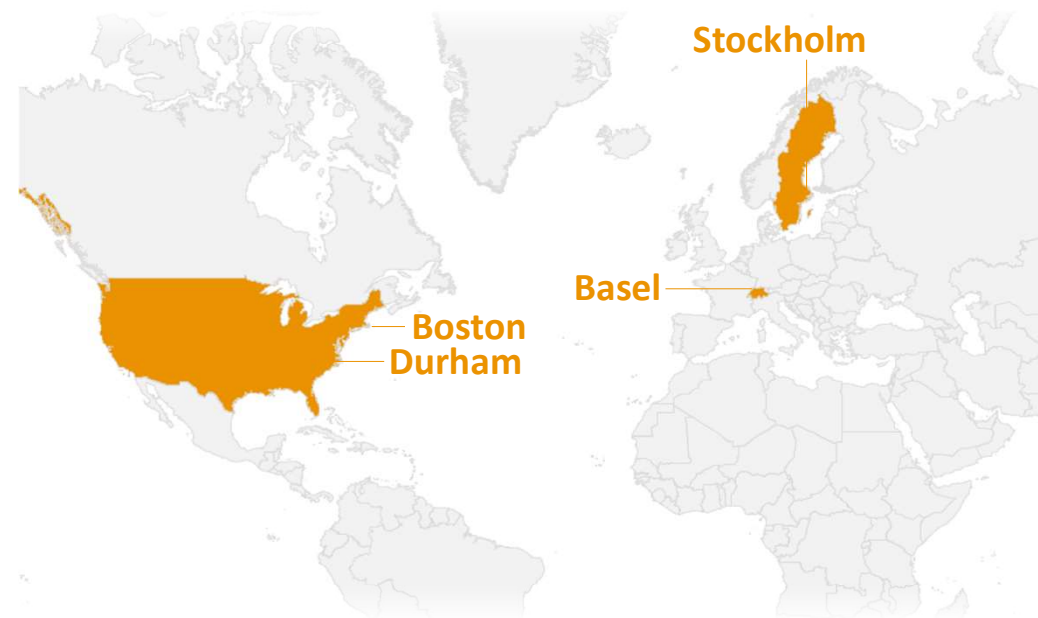
1. US, Europe, China, Japan, Russia 2. In collaboration with Apellis 3. Strategic licensing agreement with Selecta 4. In collaboration with Sanofi 5. Financial interest only, in collaboration with Astra Zeneca

## Building our rare strength in R&D

- A portfolio across a broad range of rare haematologic and immunologic diseases
- Innovative and differentiated medicines
- Asset development in multiple indications and utilising leading enabling technology
- Deep experience with collaboration and partnership
- Sobi leadership in areas of expertise:
  - *emapalumab* in *sHLH*, *GF*, *GVHD* (*HSCT*)
  - *pegcetocoplan* in *CAD* and *TMA* (*HSCT*)
  - *anakinra* in *COVID19*

### 4 Centers of excellence with ~250 team members

- deepening experience of haematology and immunology





# Internationalisation Strategy



Norbert Oppitz



# The rare disease market represents compelling opportunities outside Europe and US

## Key facts

**7,000+**

More than **7,000 designated rare diseases** exist



**~85%**

85% are serious / **life-threatening**



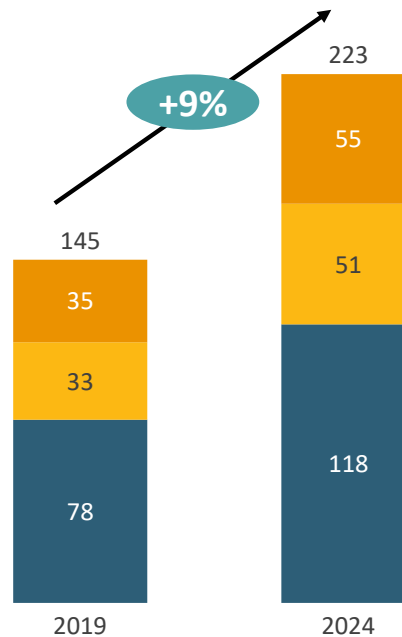
**500**

Only approximately 500 **approved drugs** to date



## Rare disease market, USD B

International Europe US CAGR



**Strong double-digit market growth** for rare diseases **outside** current Sobi core **territories**

**>250 million people affected** by rare diseases excluding US/EU, thereof 60% children

**Sobi committed to reach 80% of affected patients** with Sobi rare disease products

Our Mission 2025 goal is to go global and make our products available to twice as many patients as today

## 2017-2020



**Becoming a regional leader in rare disease**

Establish **US** as a **second pillar** next to Europe

Started to further internationalise, e.g. **Middle East**

## Mission 2025





**Global leader in rare disease**


**Presence established** in key markets **China, Japan, Russia and Australia**

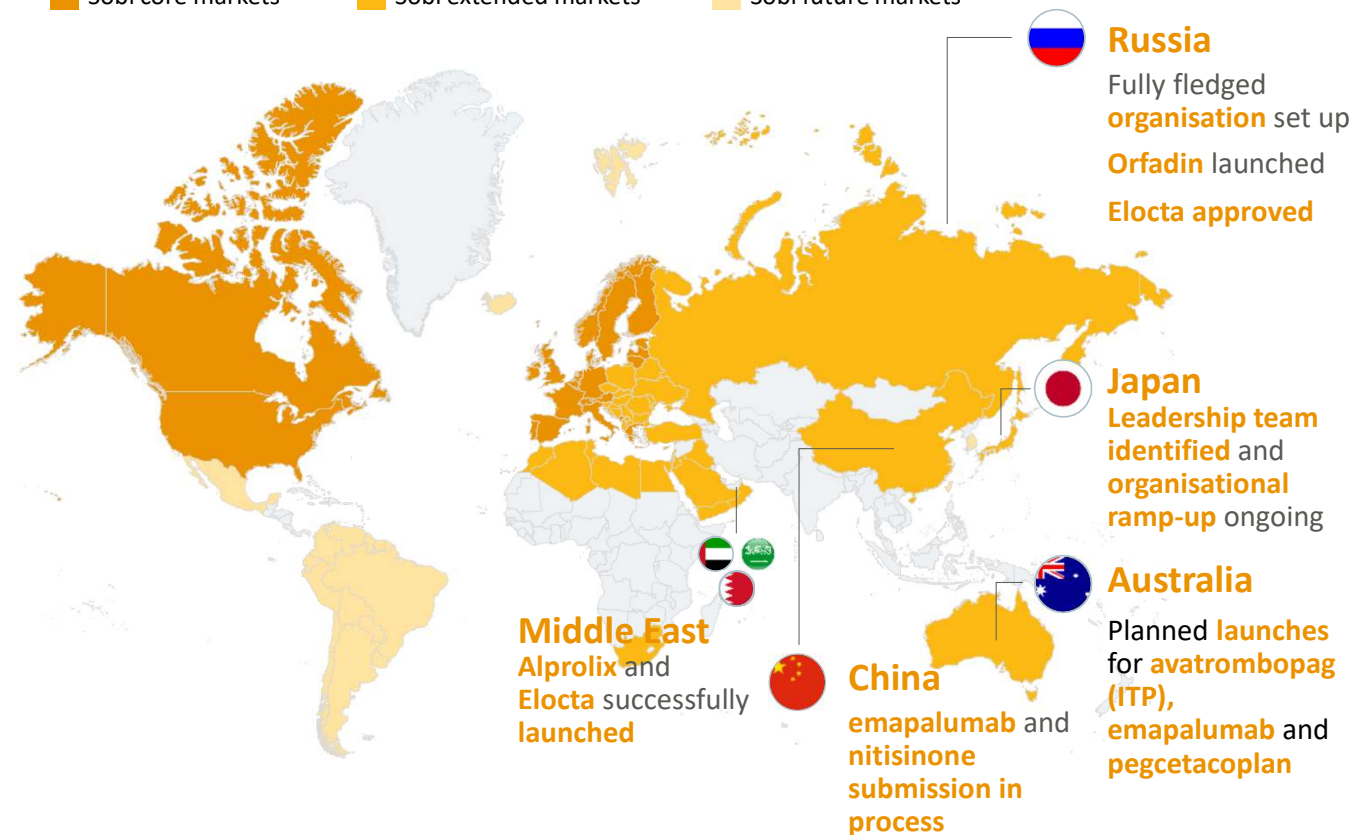
**Partnerships** to **serve underserved regions**

# We have already expanded our market presence outside Europe and the US

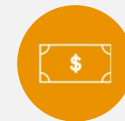
 Sobi core markets

 Sobi extended markets

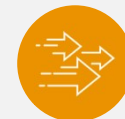
 Sobi future markets



Sobi has already **established** presence in **Middle East, Russia** and **China**

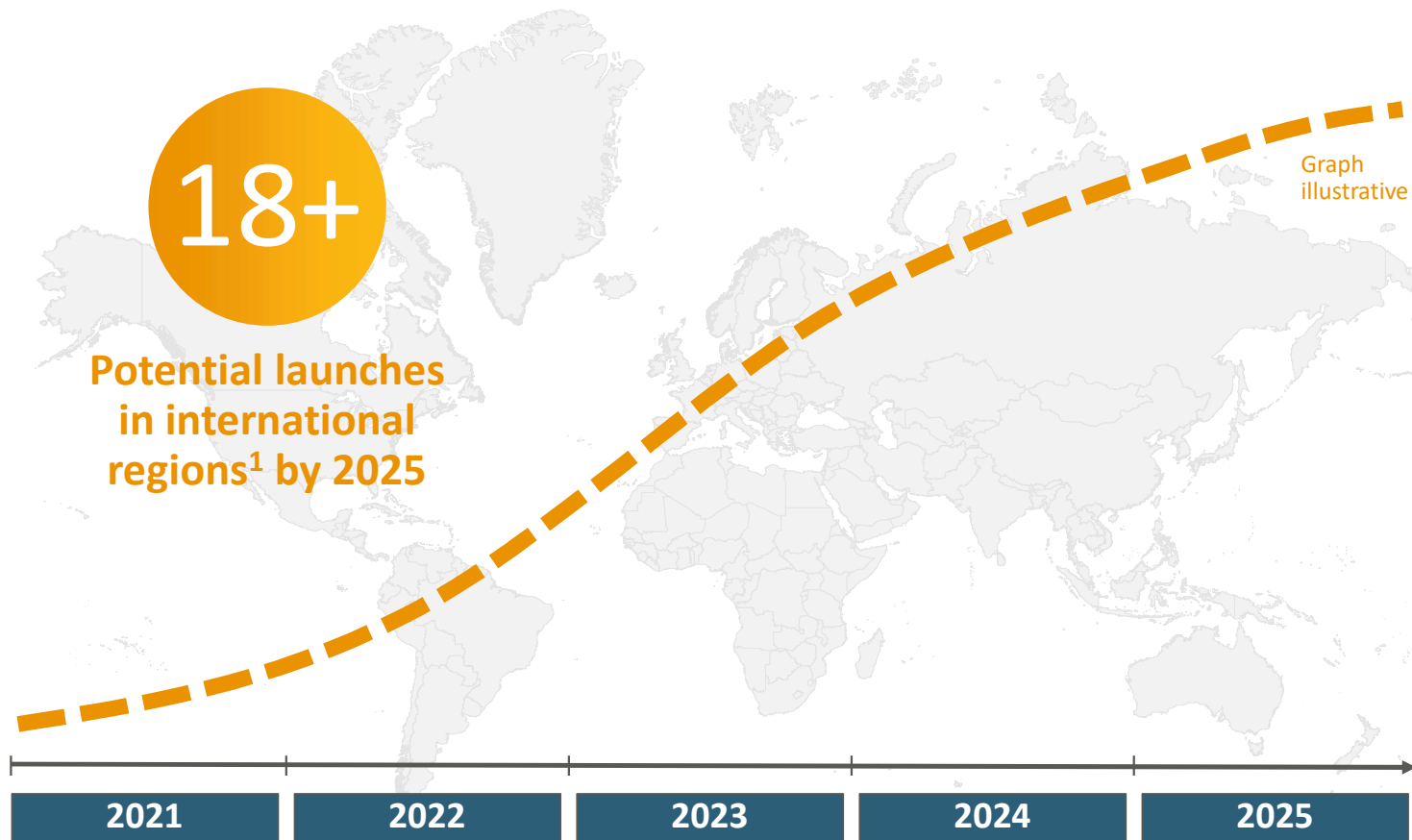


**Current sales of SEK ~800M** outside its **core** markets (Europe and US)



**Second wave** now focuses on **Japan, Australia, South-East Asia** and **Latin America**

# International will ramp up value with a high cadence of launches



## Examples of indications (illustrative)

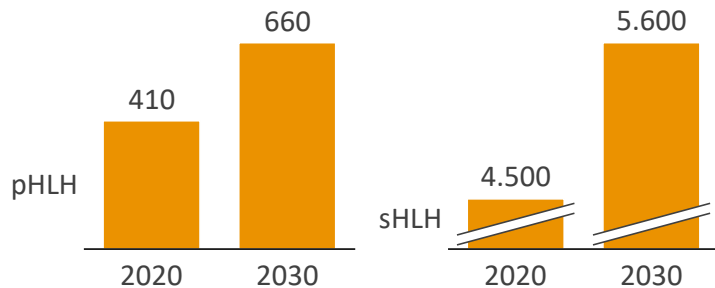
- eloctate, HA
- nitisinone, HT-1
- emapalumab, pHLH
- emapalumab, sHLH
- emapalumab, GvHD
- avatrombopag, ITP
- avatrombopag, CLD
- pegcetacoplan<sup>2</sup>, PNH
- pegcetacoplan<sup>2</sup>, CAD
- pegcetacoplan<sup>2</sup>, C3G
- SEL-212<sup>3</sup>, chronic refractory gout

1. Regions outside NA and Europe 2. In collaboration with Apellis 3. Strategic licensing agreement with Selecta

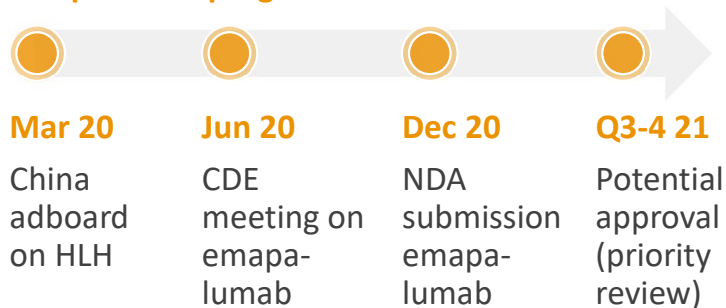


# Example: China – we are fast-tracking to enable patients to access emapalumab and nitisinone in 2022

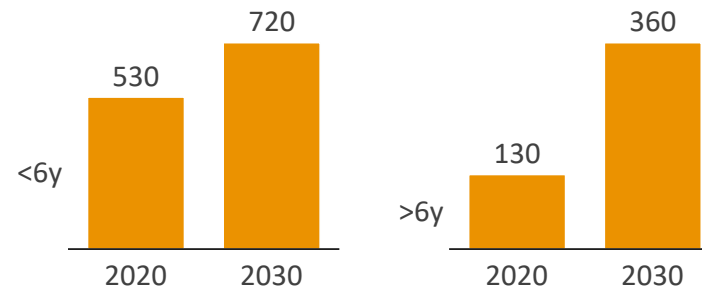
## HLH patients in China



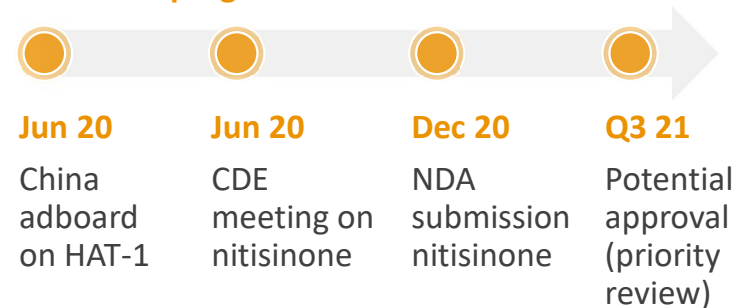
## emapalumab progress



## HT-1 patients in China



## nitisinone progress



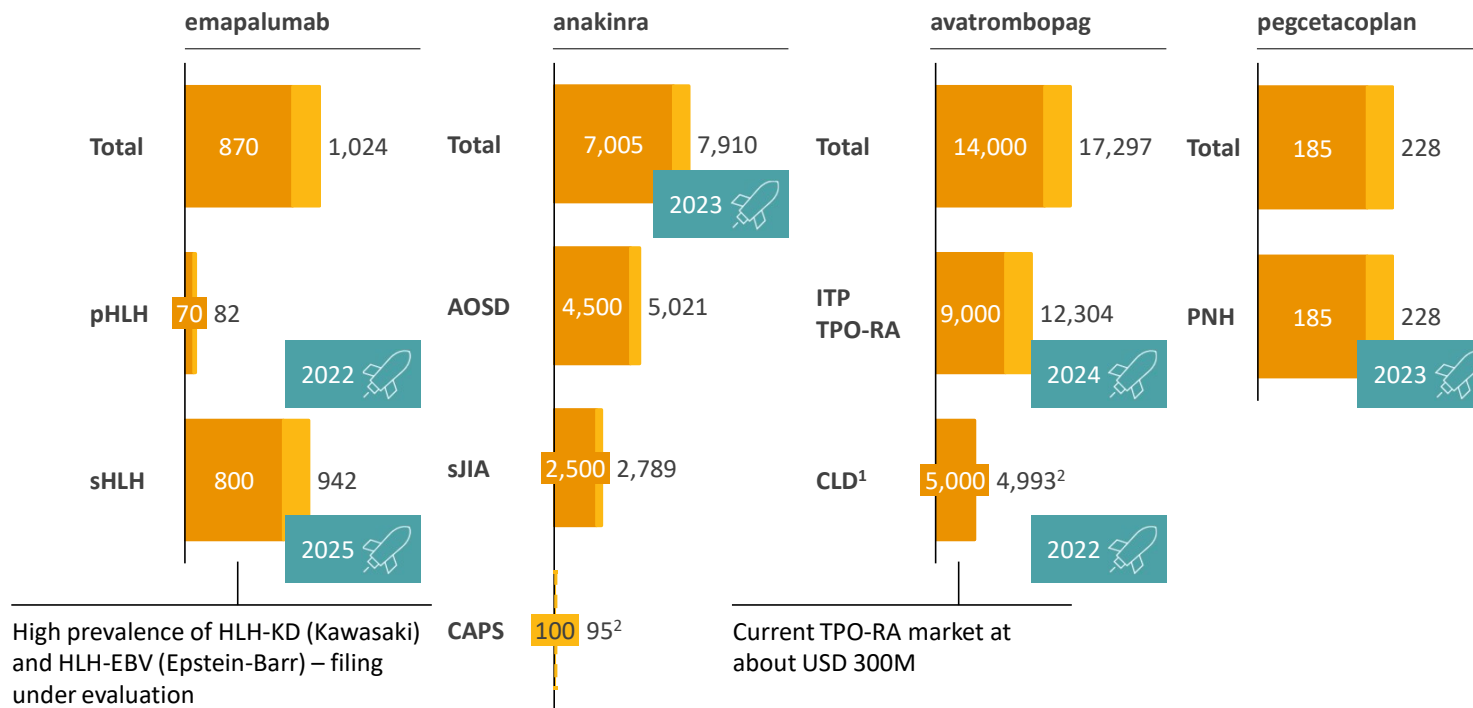
- Legal entity established
- GM with 20+ years of experience
- Medical support established
- Supply chain designed
- Regulatory expertise onboarded
- Launch of anakinra in CAPS expected 2023



# Example: Japan – en route to introduce emapalumab, anakinra, avatrombopag and pegcetacoplan

## Patient pools by indication

2019 2030 Launch year



1. CLD patients receiving surgery 2. Decrease in line with population expected

Source: Scientific research, journals, government publications, patient surveys, practice guidelines, publications from associations, expert interviews, claims data



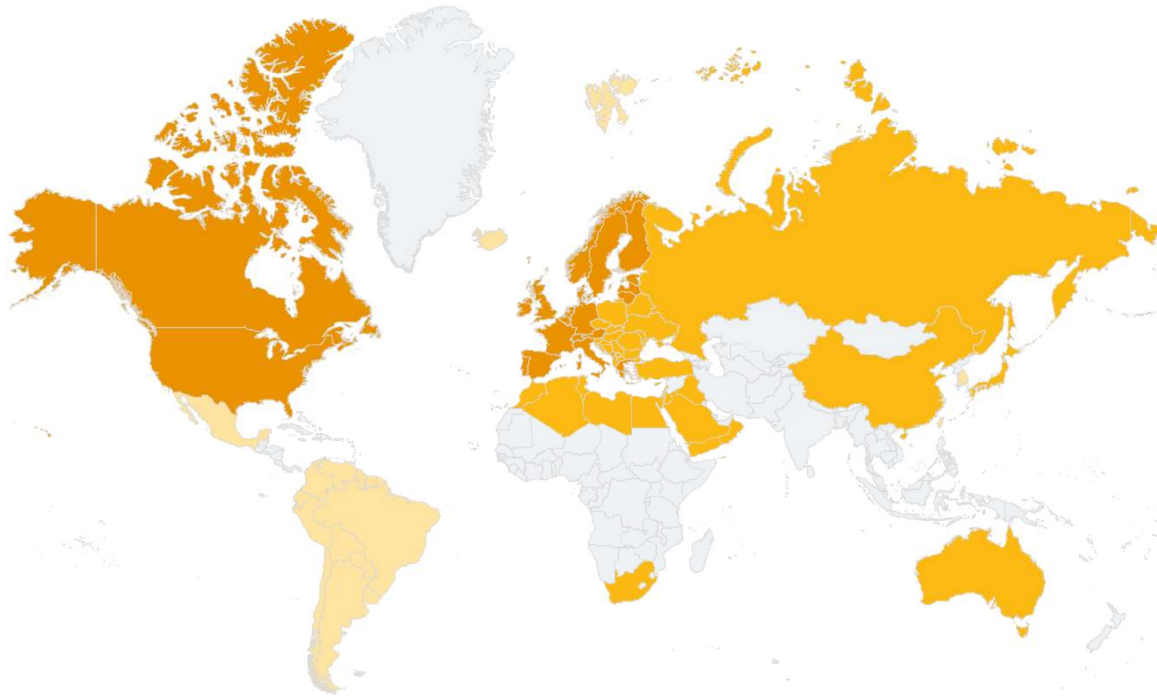
Well-established markets already



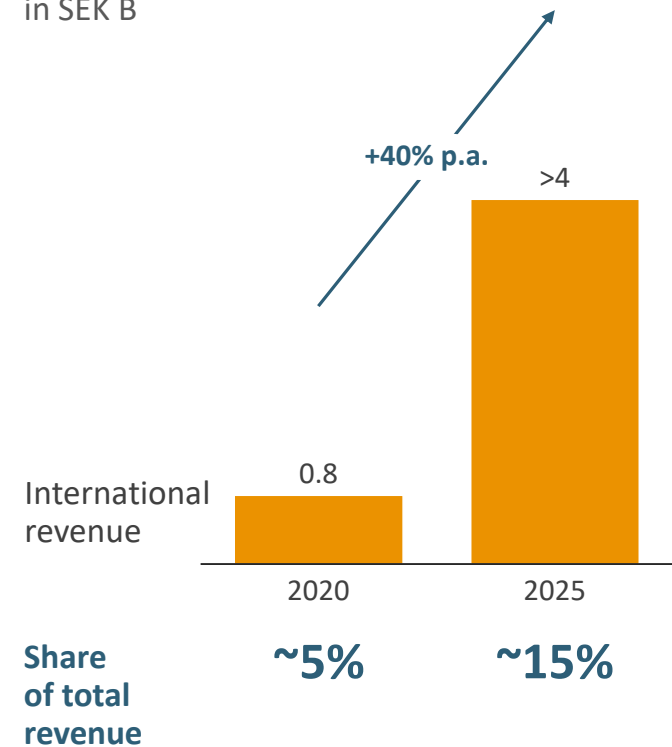
Build experienced leadership team and scaled-up organisation

# By 2025, International is expected to contribute 15% of Sobi's revenue

■ Sobi core markets 
 ■ Sobi extended markets 
 ■ Sobi future markets




Revenue  
in SEK B





# Financial update

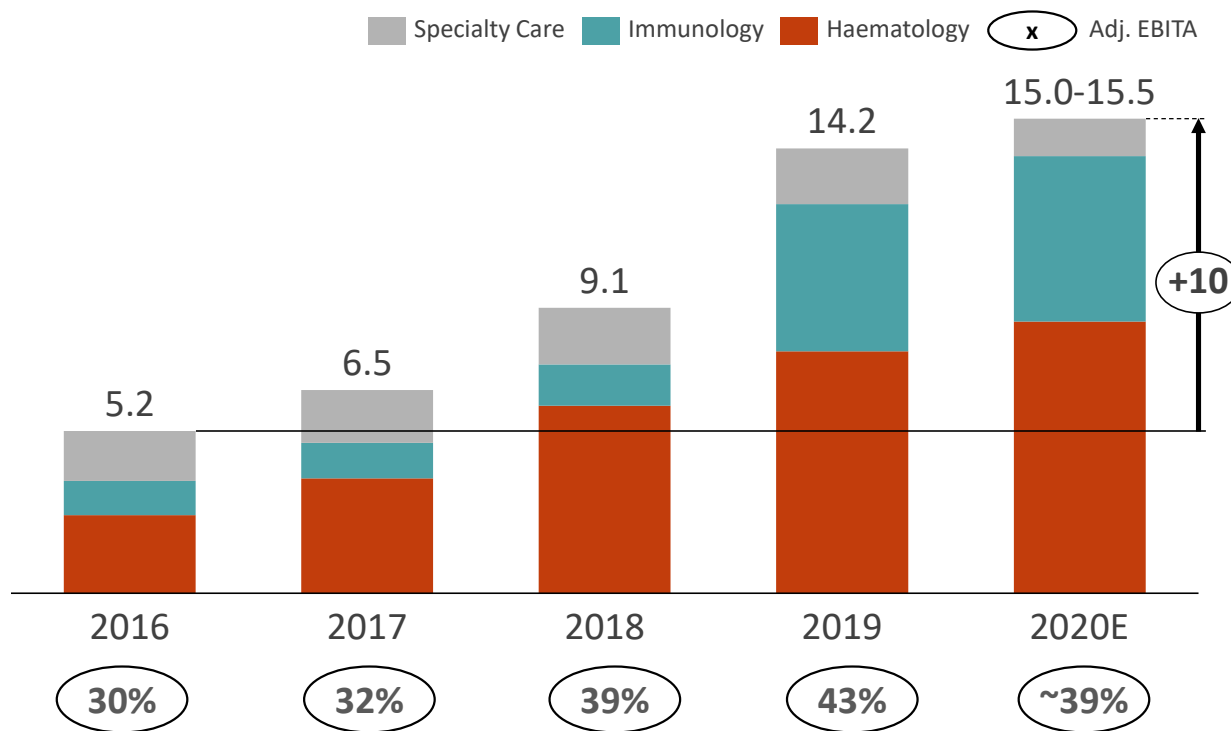


**Henrik Stenqvist**  
CFO



# Operational performance in 2016 – 2020 has generated strong revenue, EBITA and cash flow

## Total Revenue, SEK B



2020E based on mid-point guidance provided by Sobi in Q3 2020 report

### Haematology

Achieved continued growth in Haemophilia  
Realised successful launch of Doptelet

### Immunology

Impact from Synagis acquisition and  
successful Gamifant launch  
Realised growth in Kineret

### Specialty Care

Declining revenues due to partner portfolio  
terminations  
Orfadin decline due to generics

### EBITA


Maintained stable ~40% margins over the last  
3 years

### Cash flow

Continued strong cash generation

# Sobi is in a new stage as a company

## Mission 2025



Global leader  
in rare disease



Competitive situation within **Haemophilia**



We now have a significant **pipeline of late-stage assets** to be brought to approval



Commercial success will be driven by **realizing the potential of launches on a global scale**



We will continue to make **strategic M&A**

## Bringing assets to approval and realising commercial potential on a global scale

### R&D spend – pipeline of late-stage assets to be brought to approval

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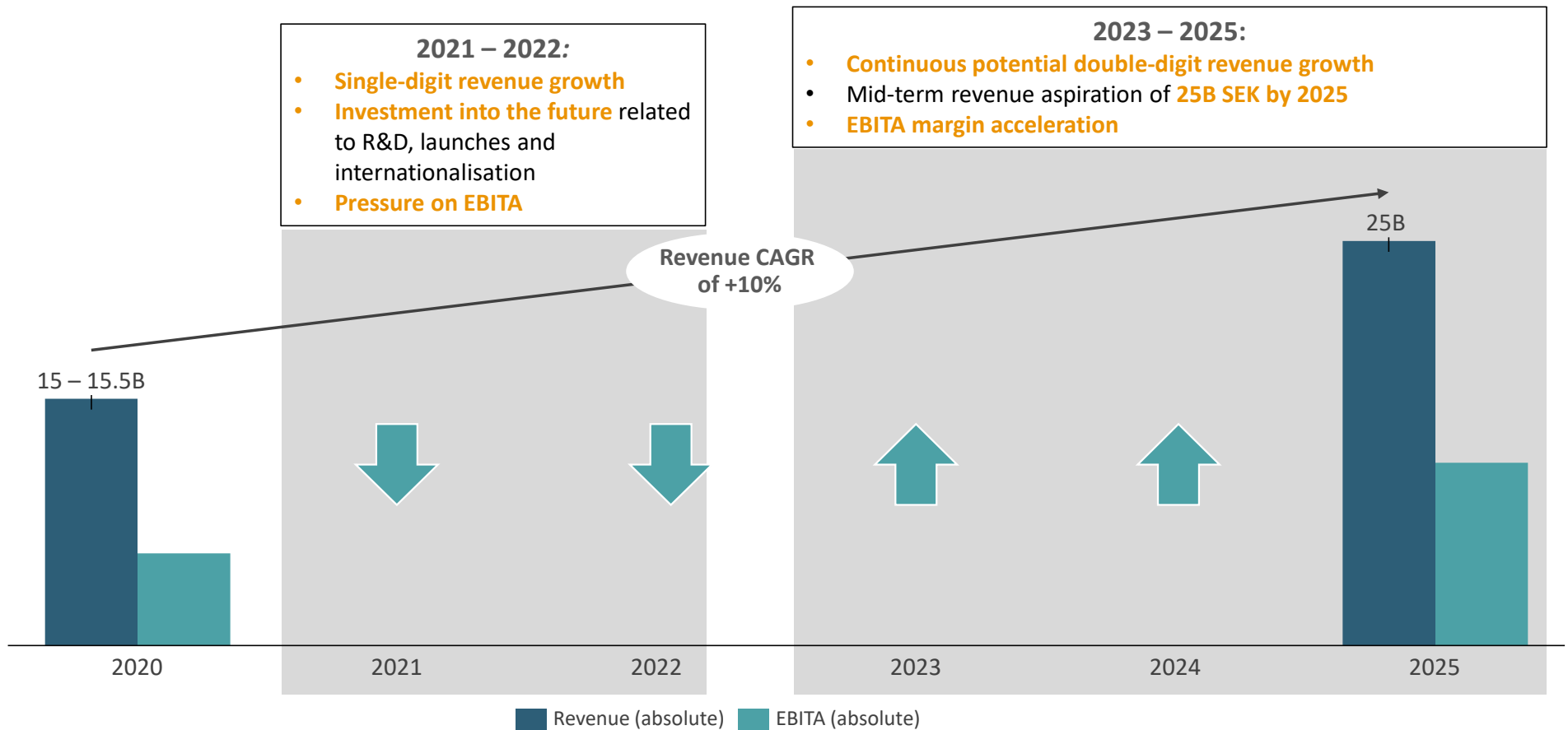
- Moving forward in 2021-2022, **will increase to 13-15% of sales** driven by investments in:
  - **SEL-212**
  - **Pegcetacoplan** across several indications
  - **Emapalumab** indication expansion into GF and sHLH

### SG&A spend – realising the potential of launches on a global scale

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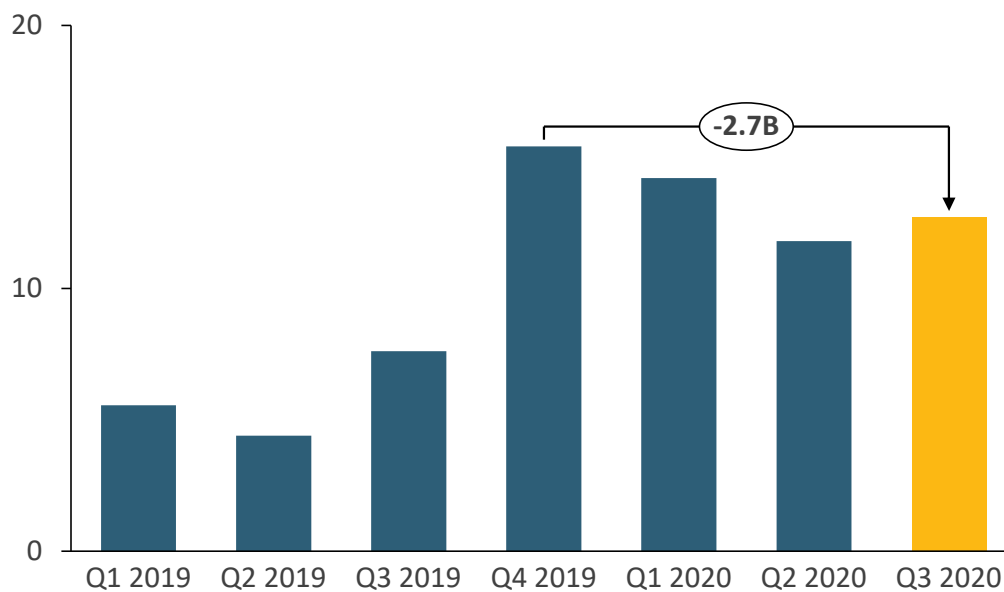
- Continued investments in **Doptelet** and **Gamifant**
- Launch of **SEL-212**, **pegcetacoplan** and **BIVV-001**
- Further investments in **infrastructure in international markets**

# Growth acceleration from 2023 onwards



# A continued strong cash flow will support growth through M&A

Net debt, SEK B



Continued **strong cash generation** with seasonality driven by Synagis

**Net debt / EBITDA** will likely be **below 3** in short-term

**Ability to lever up** to 3-4x range

Acqui-  
sitions



SEL-212

# Focus M+A in strategic areas – *derisk where possible*

## Example actions to de-risk

**Pegceta-  
coplan**

Limited upfront payment; future payments contingent on R&D and commercial success

**SEL-212**

Limited upfront payment; future payments contingent on R&D and commercial success



3 indications, bulk of purchase value from CLD and ITP

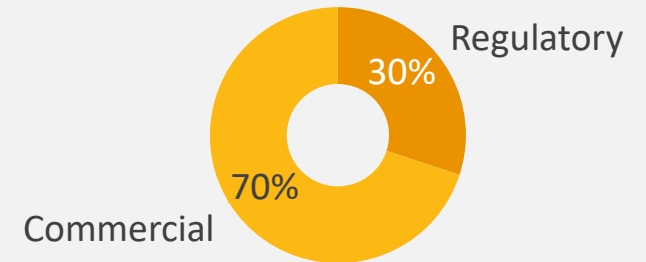


Financial stake in follow-on MEDI8897

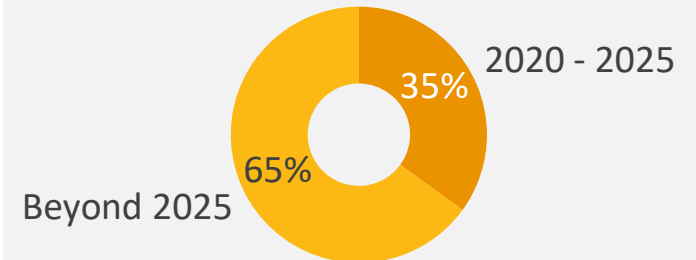


Included FDA priority review voucher with high re-sale value de-risked by multiple potential indications

## Majority of obligations relate to commercial milestones



## Majority of obligations estimated due after 2025





Wrap-up and Q&A



**Guido Oelkers**  
CEO

# Conclusion



**Proven track record** - since 2016 we have created a strong foundation with regard to revenue, EBITA and cash flow, whilst building the organisation and our pipeline

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**Next phase requires investment** into development, pre-launch and launches of our pipeline to **propel mid- to long-term growth**

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**Our ambition** is to reach **SEK 25B revenues in 2025**

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**Further M+A will be explored**