

A dark teal world map is centered in the background of the slide. The map shows the outlines of continents and oceans in a lighter shade of teal.

Investor R&D Briefing

December 10, 2015

Forward looking statements

The materials in this presentation speak only as of the date of these materials, and include forward looking statements about CSL Limited and its related bodies corporate (CSL) financial results and estimates, business prospects and products in research, all of which involve substantial risks and uncertainties, many of which are outside the control of, and are unknown to, CSL. You can identify these forward looking statements by the fact that they use words such as “anticipate,” “estimate,” “expect,” “project,” “intend,” “plan,” “believe,” “target,” “may,” “assume,” and other words and terms of similar meaning in connection with any discussion of future operating or financial performance. Factors that could cause actual results to differ materially include: the success of research and development activities, decisions by regulatory authorities regarding approval of our products as well as their decisions regarding label claims; competitive developments affecting our products; the ability to successfully market new and existing products; difficulties or delays in manufacturing; trade buying patterns and fluctuations in interest and currency exchange rates; legislation or regulations that affect product production, distribution, pricing, reimbursement or access; litigation or government investigations, and CSL’s ability to protect its patents and other intellectual property. The statements being made in this presentation do not constitute an offer to sell, or solicitation of an offer to buy, any securities of CSL.

No representation, warranty or assurance (express or implied) is given or made in relation to any forward looking statement by any person (including CSL). In particular, no representation, warranty or assurance (express or implied) is given in relation to any underlying assumption or that any forward looking statement will be achieved. Actual future events may vary materially from the forward looking statements and the assumptions on which the forward looking statements are based.

Subject to any continuing obligations under applicable law or any relevant listing rules of the Australian Securities Exchange, CSL disclaims any obligation or undertaking to disseminate any updates or revisions to any forward looking statements in these materials to reflect any change in expectations in relation to any forward looking statements or any change in events, conditions or circumstances on which any such statement is based. Nothing in these materials shall under any circumstances create an implication that there has been no change in the affairs of CSL since the date of these materials.

Trademarks

Except where otherwise noted, brand names designated by a TM or [®] throughout this presentation are trademarks either owned by and/or licensed to CSL.

- **Welcome**
- **Introduction & Highlights**
- **Research & Early Development**
- **Immunoglobulins & Specialty Products**
 - **Clinical Development**
 - **Commercial Opportunities**
- **Q&A**

Break

- **Coagulation/Haemophilia**
 - **Clinical Development**
 - **Commercial Opportunities**
- **Breakthrough Medicines**
 - **CSL112 Clinical Development**
- **Influenza Vaccines R&D**
- **Summary**
- **Q&A**

Mark Dehring
Andrew Cuthbertson
Andrew Nash

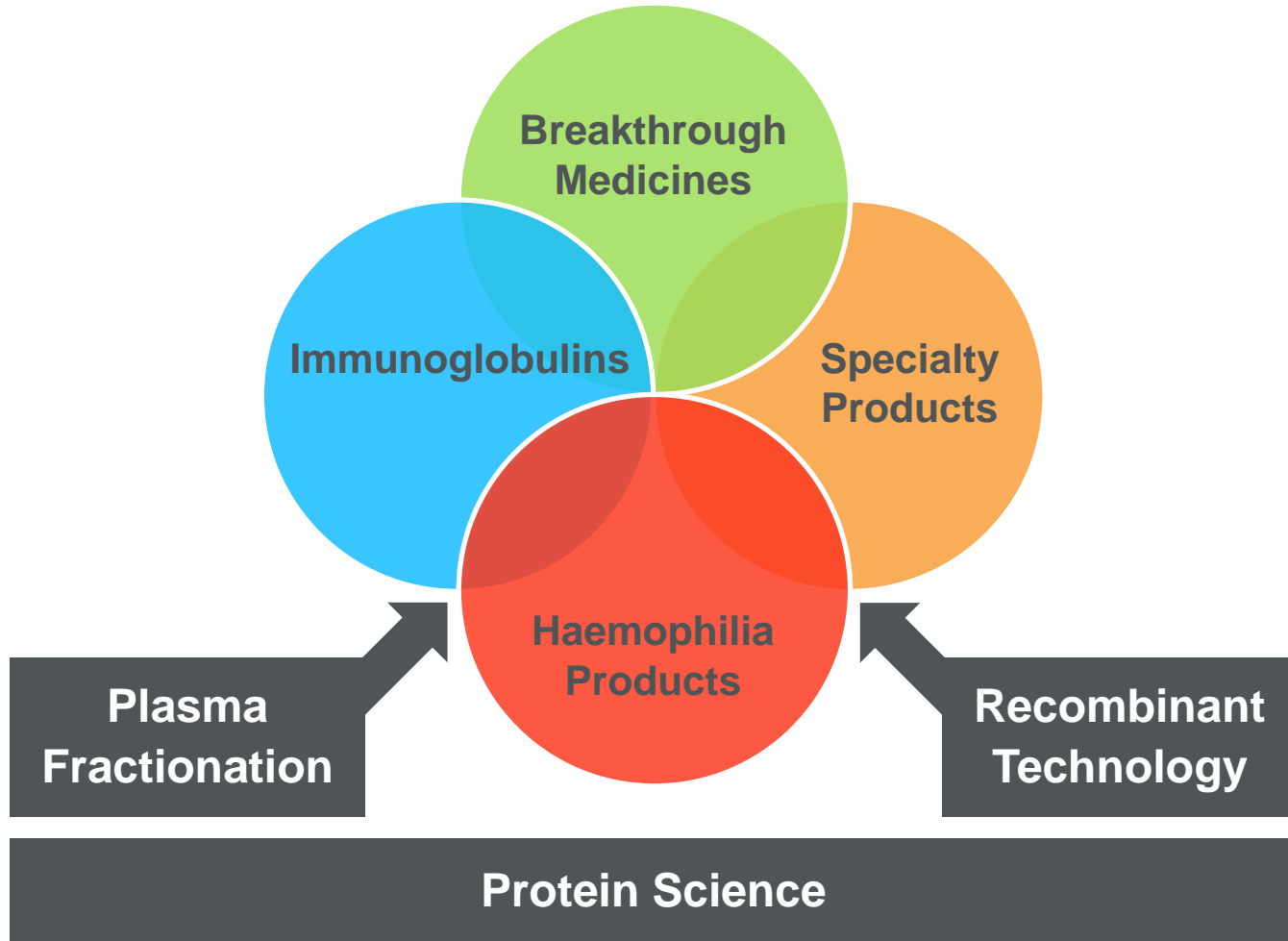
Charmaine Gittleson
Bob Repella

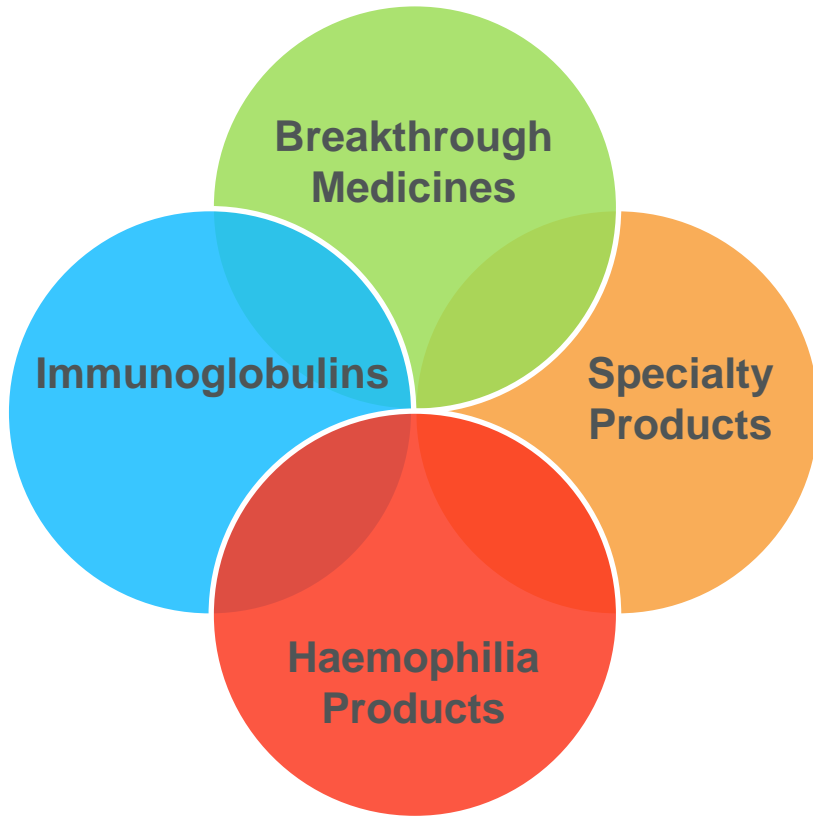
Charmaine Gittleson
Bob Repella

Charmaine Gittleson
Andrew Cuthbertson

A dark teal world map is centered in the background of the slide. The map shows the outlines of continents and oceans in a lighter shade of teal.

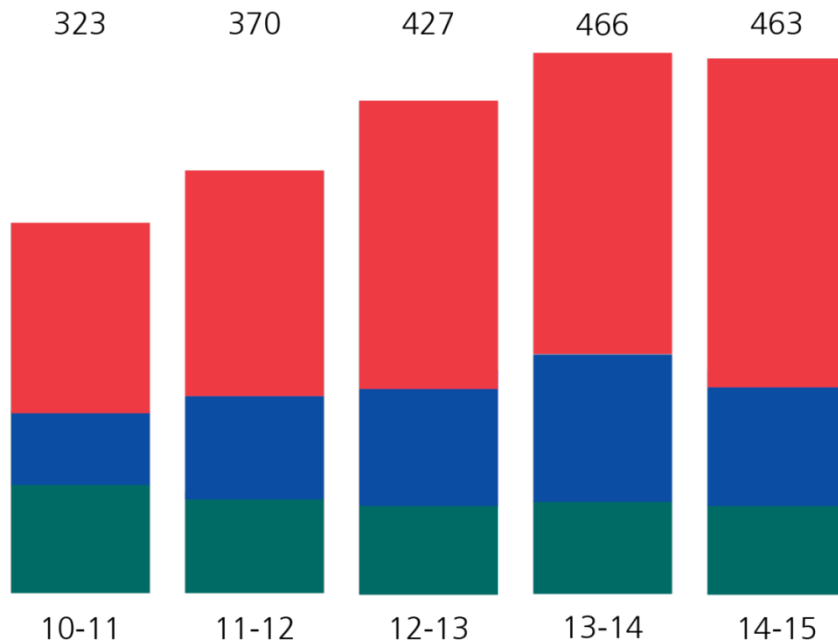
Introduction and Highlights





- Maintain commitment to extracting maximum value from existing assets and supporting and improving current products
- Develop new protein-based therapies for treating serious illnesses focusing on products that align with our technical and commercial capabilities

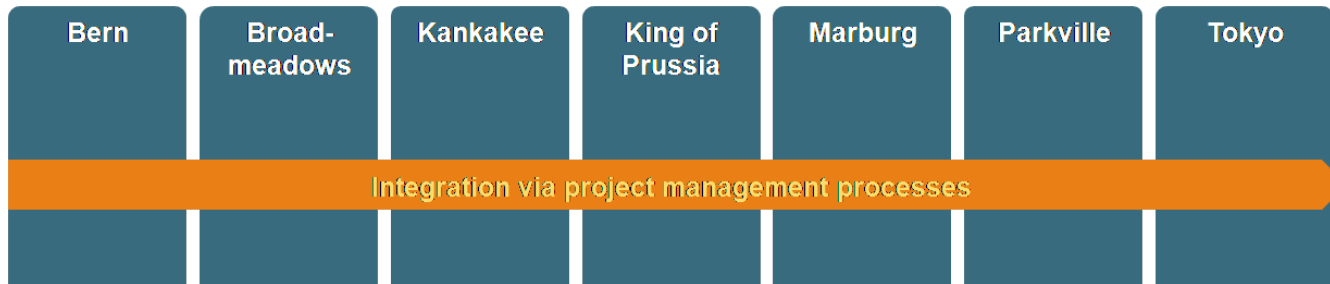
R&D Investment* (US\$ millions)



- **New Product Development** activities focus on innovative new therapies for life-threatening diseases.
- **Market Development** strategies seek to bring therapies to new markets and new indications.
- **Life Cycle Development** ensures continuous improvement of existing products.

*FY14 / FY15 YoY growth 6% at constant currency

Leveraging Global Capabilities



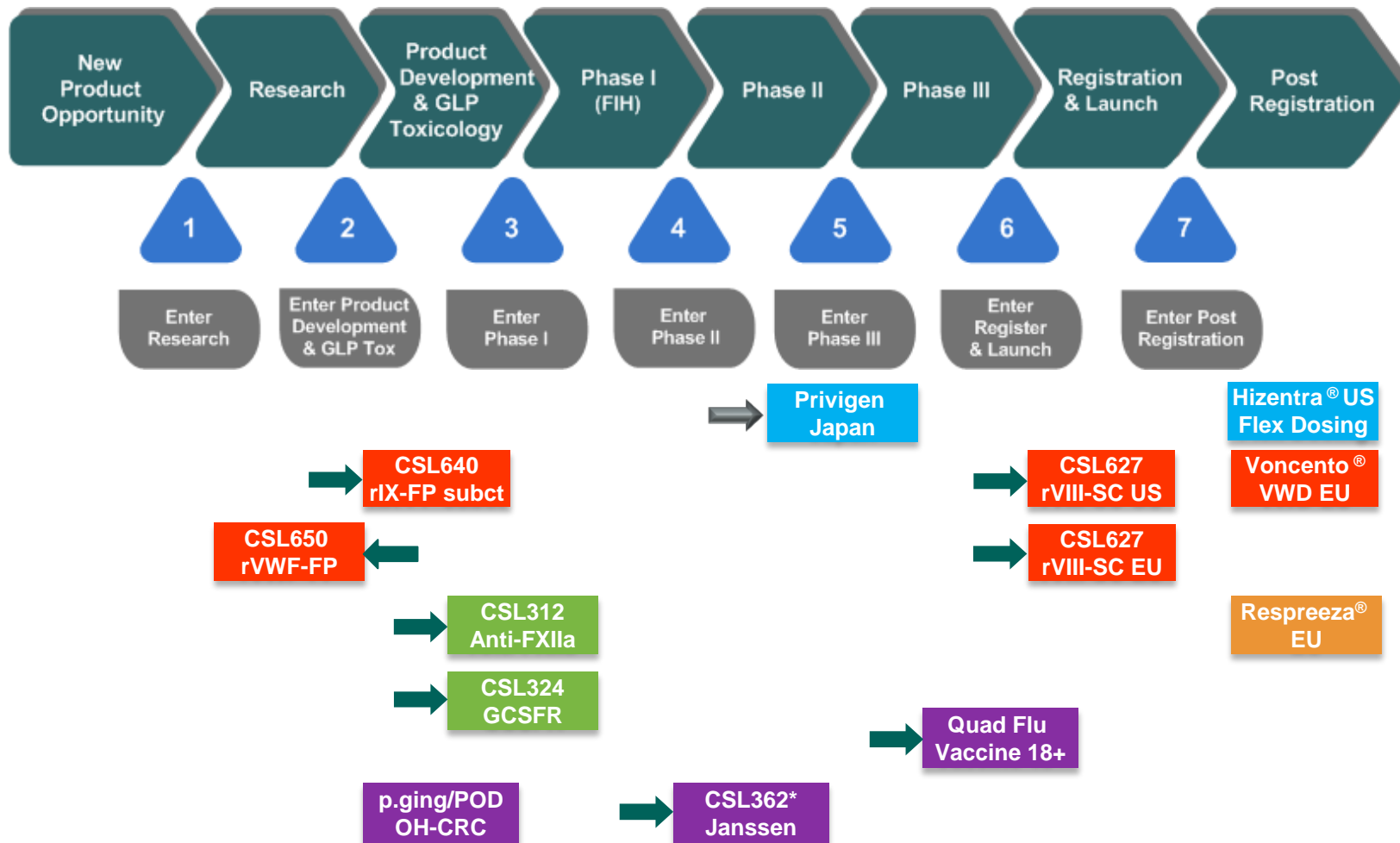
	Research	Pre-clinical	Phase I	Phase II	Phase III	Registration	Commercial/ Phase IV
Life Cycle Management#							Immunoglobulins Haemophilia Specialty Products Influenza Vaccine
Market Development		Fibrinogen New Indications PCC New Indications		Beriplex® NOACs Daiichi*	Hizentra® CIDP Beriplex® Japan CSL830 C1-INH subcut Fibrinogen Aortic EU	Zemaira® EU	Hizentra® Japan Privigen® CIDP Hizentra® biweekly Voncento® EU Kcentra™ US Bleeding /Surgery
New Product Development	Novel Plasma Proteins Rec Coagulation Factors Partnered Vaccine Programs* P. gingivalis/POD OH-CRC/Sanofi* Discovery Projects	CSL650 rVWF-FP Partnered Vaccine Programs* FXIIa Antagonist CSL324 G-CSFR CSL346 VEGFB CSL334 IL-13R	CSL689 rVIIa-FP Congen Def Partnered Vaccine Programs* CSL362 IL-3R* Janssen	CSL689 rVIIa-FP Inhibitors CSL112 reconstituted HDL CAM3001 GM-CSFR –AZ*	CSL627 rVIII-SC Quadrivalent Flu Vaccine	CSL654 rIX-FP	
Core Capabilities:	Immunoglobulins	Haemophilia	Specialty Products	Breakthrough Medicines	Vaccines & IP		

*Partnered Projects

#LCM includes direct post marketing commitments as well as pathogen safety, capacity expansions, yield improvements, new packages and sizes for all registered products



Progress through Stage Gates in 2015



	Research	Pre-clinical	Phase I	Phase II	Phase III	Registration	Commercial/ Phase IV
Life Cycle Management#							Immunoglobulins Haemophilia Specialty Products Influenza Vaccine
Market Development		C1-inh New Indications Fibrinogen New Indications PCC New Indications			Hizentra® CIDP Privigen® Japan Beriplex® Japan CSL830 C1-INH subcut		Kcentra™ US Bleeding /Surgery Respreza® EU
New Product Development	Ig Formulations Rec Coagulation Factors Partnered Vaccine Programs* P. gingivalis/POD OH-CRC Discovery Projects	CSL650 rVWF-FP Partnered Vaccine Programs* CSL334 IL-13R* ASLAN CSL312 Anti-FXIIa CSL324 G-CSFR CSL346 VEGFB	CSL689 rVIIa-FP Congen Def Partnered Vaccine Programs*	CSL689 rVIIa-FP Inhibitors CSL362 IL-3R* AML Janssen CSL112 reconstituted HDL CAM3001 GM-CSFR –AZ*		CSL654 rIX-FP CSL627 rVIII-SC	
Core Capabilities:	Immunoglobulins	Haemophilia	Specialty Products	Breakthrough Medicines	Vaccines & IP		

*Partnered Projects

#LCM includes direct post marketing commitments as well as pathogen safety, capacity expansions, yield improvements, new packages and sizes for all registered products



A dark teal world map is centered in the background of the slide. The text "Research & Early Development" is overlaid in white, bold font.

Research & Early Development

- Coordinated global project portfolio

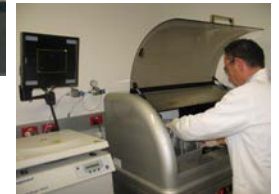
Immunoglobulins

Haemophilia

Specialty
Products

Breakthrough
Medicines

- Hub (Bio21, Parkville) & spoke model
- Research excellence in therapeutic proteins
- Plasma and recombinant manufacturing platforms





- Major focus on patient QoL
- Extract maximum value and performance from existing assets
- Develop new protein-based therapies and strategies for treating bleeding disorders
 - Congenital
 - Acquired

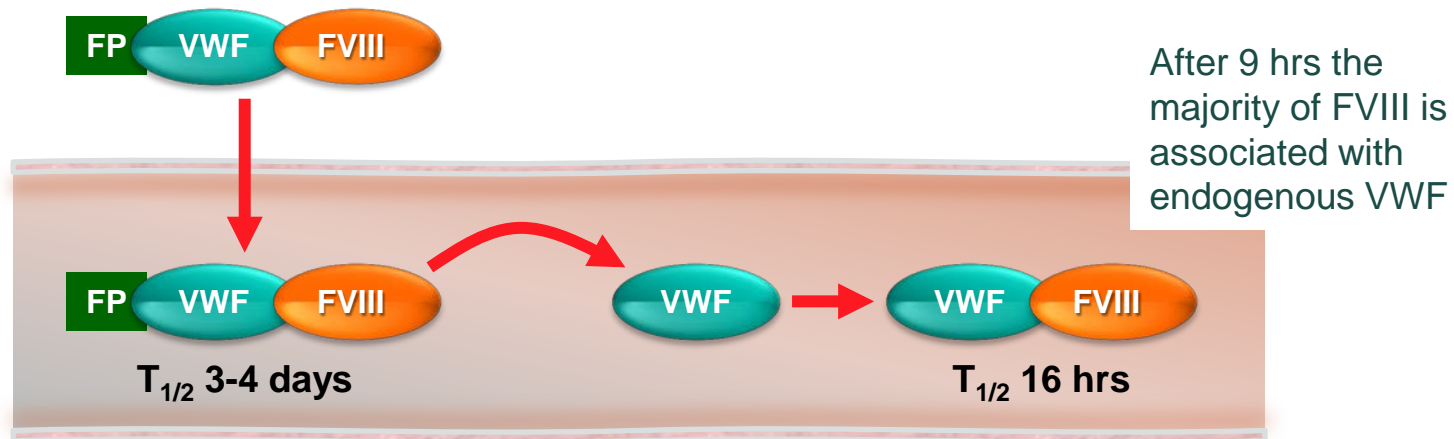
- Improved prophylaxis for haemophilia patients

Product	Features	Phase	Manufacturer	Half-life extension
Eloctate	rFVIII fused to Fc	Market	Biogen Idec	} 1.1 - 1.5 fold*
N8-GP	BDD FVIII O-linked pegyl ⁿ	Ph II/III	Novo Nordisk	
BAX 855	FVIII Lys-linked pegyl ⁿ	Market	Baxter	
BAY 94-9027	BDD FVIII site-specific pegyl ⁿ	Ph I	Bayer	
CSL627 rVIII-SingleChain	Single chain BDD FVIII	Submitted	CSL Behring	
Alprolix	FIX fused to Fc	Market	Biogen Idec	3 fold
CSL654 rIX-FP	FIX fused to albumin with cleavable linker	Submitted	CSL Behring	5 fold
GlycoPEGylated rFIX	FIX N-linked pegyl ⁿ	Ph III	Novo Nordisk	5 fold
CSL689 rVIIa-FP	FVIIa fused to albumin	Ph I	CSL Behring	3-4 fold

- FVIII $T_{1/2}$ extension limited by interaction with VWF

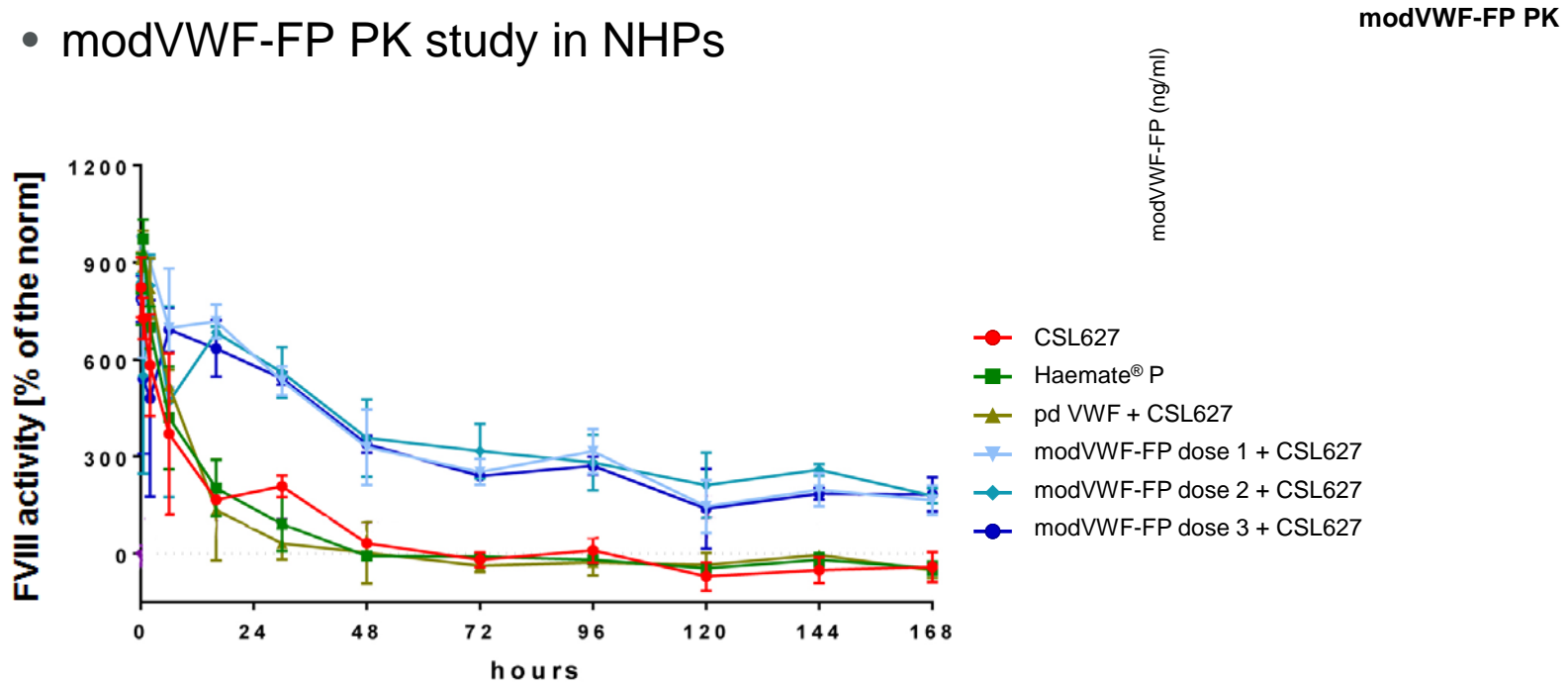
↳ Target VWF $T_{1/2}$

- VWF – Albumin fusion protein (VWF-FP)
- Haemophilia A patients have normal levels of VWF



- Create novel modified VWF-FP to enable:
 - Administration of higher doses without risk of thrombosis
 - Higher affinity association with FVIII
- Candidate product – modVWF-FP + CSL627

- modVWF-FP PK study in NHPs

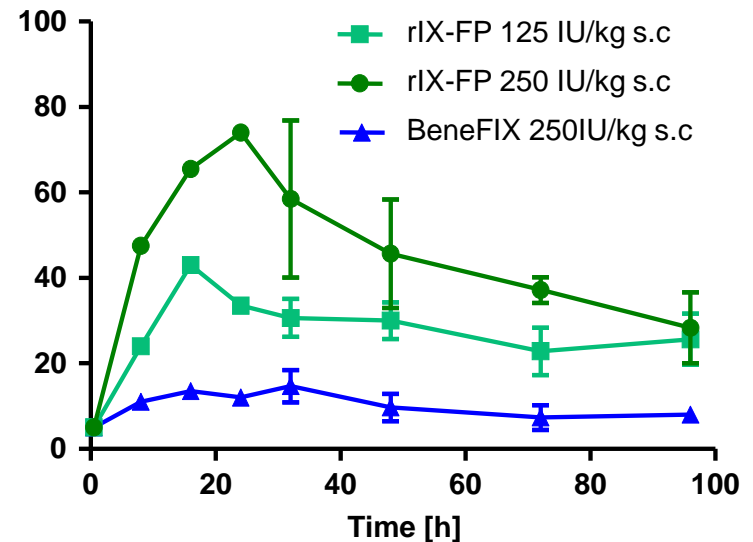
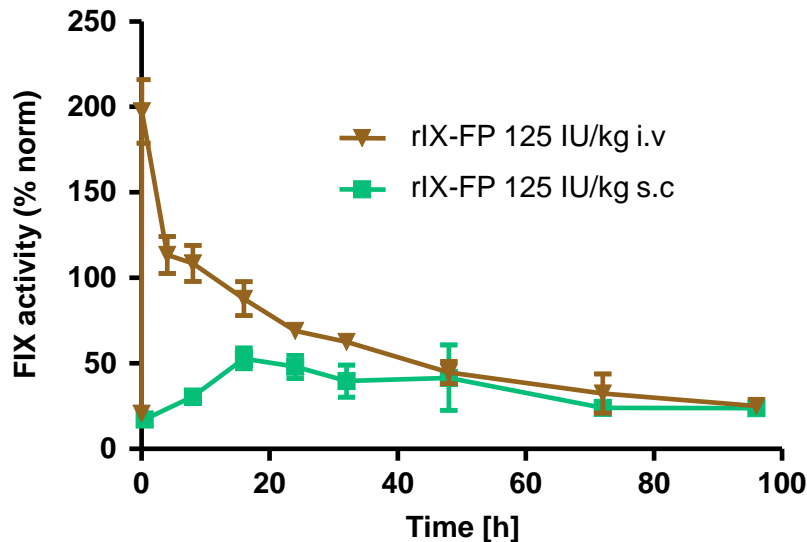


- Prolongation of FVIII exposure by modVWF-FP
- Product development initiated

Enabling more flexible and convenient prophylaxis in haemophilia patients

- New, innovative and unique administration form
- Patients with poor venous access
- Reduction or avoidance of indwelling catheters & associated complications
- Patients with fear for injections / needles
- Maintain consistent trough levels (fewer peaks)

- Subcutaneous delivery of rIX-FP (haemophilia B mice)

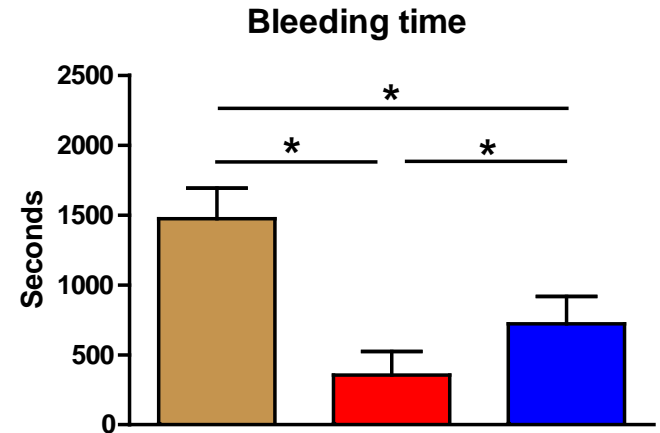
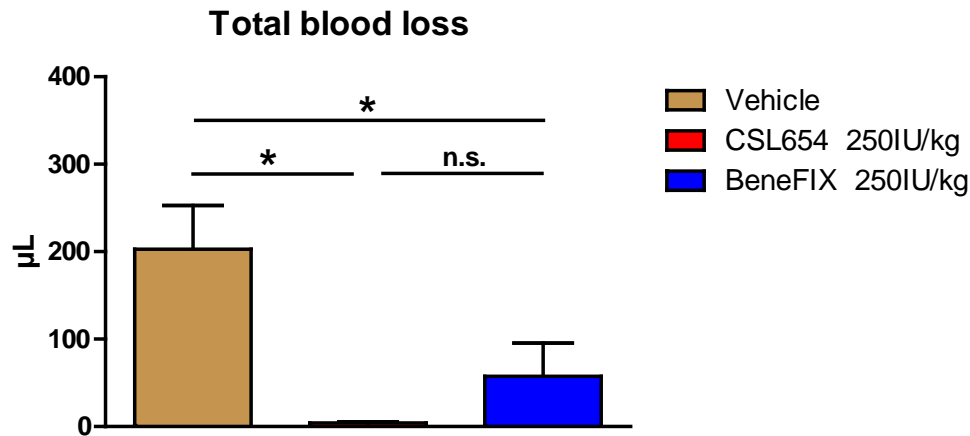


- s.c rIX-FP ~50% bioavailability* in haemophilia B mice
- s.c.rIX-FP ~8-fold higher AUC than BeneFIX**

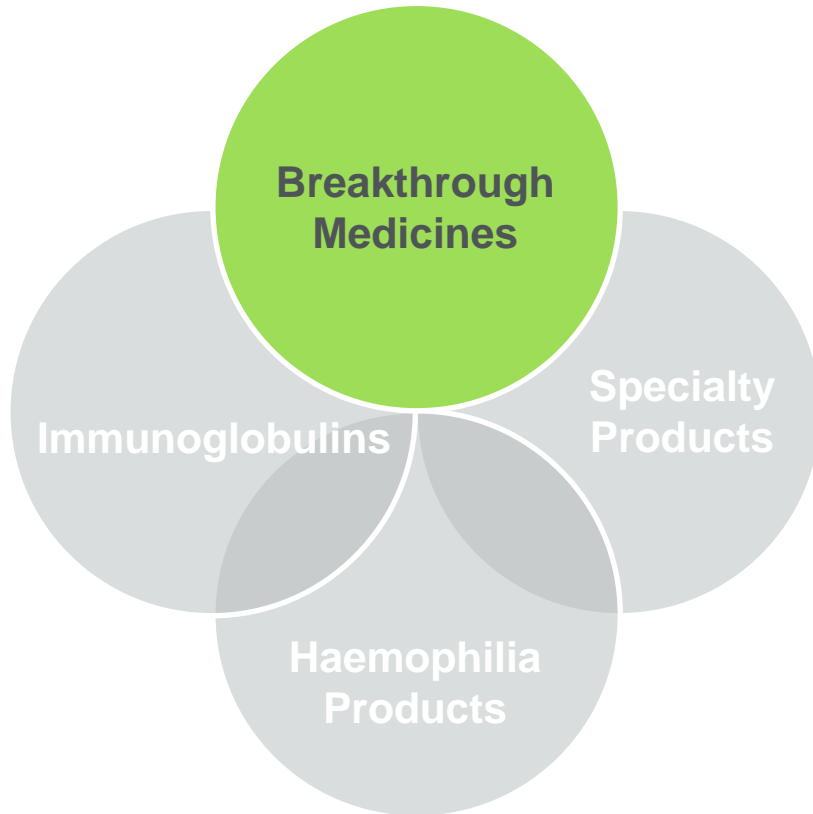
*Bioavailability 13-50% depending on species

**TM of Pfizer. Inc.

- rIX-FP s.c efficacy in haemophilia B mice



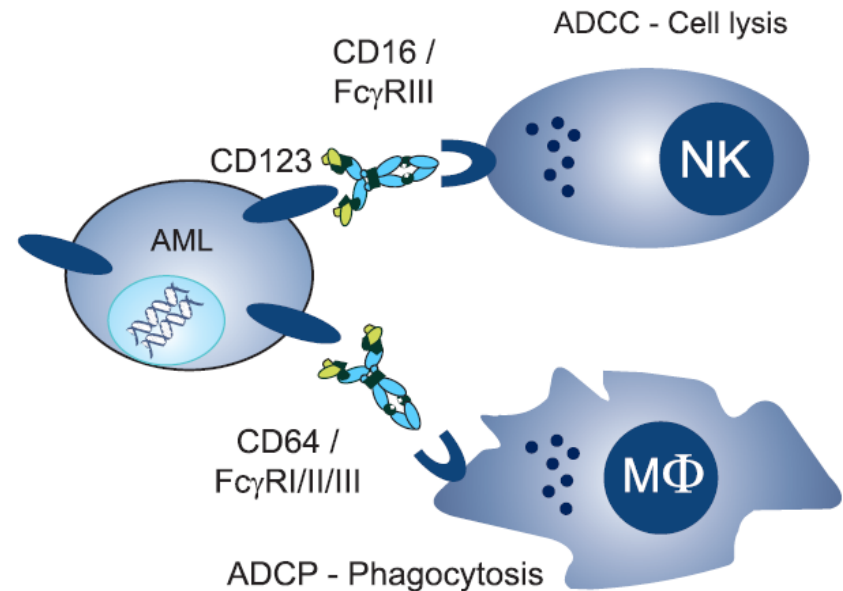
- rIX-FP reduces total blood loss and bleeding time following s.c administration to haemophilia B mice
- Phase 1 to commence mid 2016



- Leveraging clinical and technical insight in developing novel protein-based therapies
 - Significant unmet need
 - Multiple indications
- Key Focus
 - CSL362 (Janssen)
 - CSL324

CSL362 – Acute Myeloid Leukaemia

- Most common acute leukaemia in adults
- Incidence increases with age
- Untreated AML fatal: 3 – 4 months
- Chemotherapy → 50-75% CR
~70% will relapse
- CSL362 MOA – targets CD123 overexpressed on leukaemic cells
 - engineered to recruit immune killer cells
 - inhibits IL-3 activity



CSL362 – Acute Myeloid Leukaemia

- Licence Agreement with Janssen Biotech – June 2013
 - CSL responsible for completing CSL362 AML Phase 1 clinical study

Milestone	Date
Phase 1 Last Patient Last Visit	July 2015

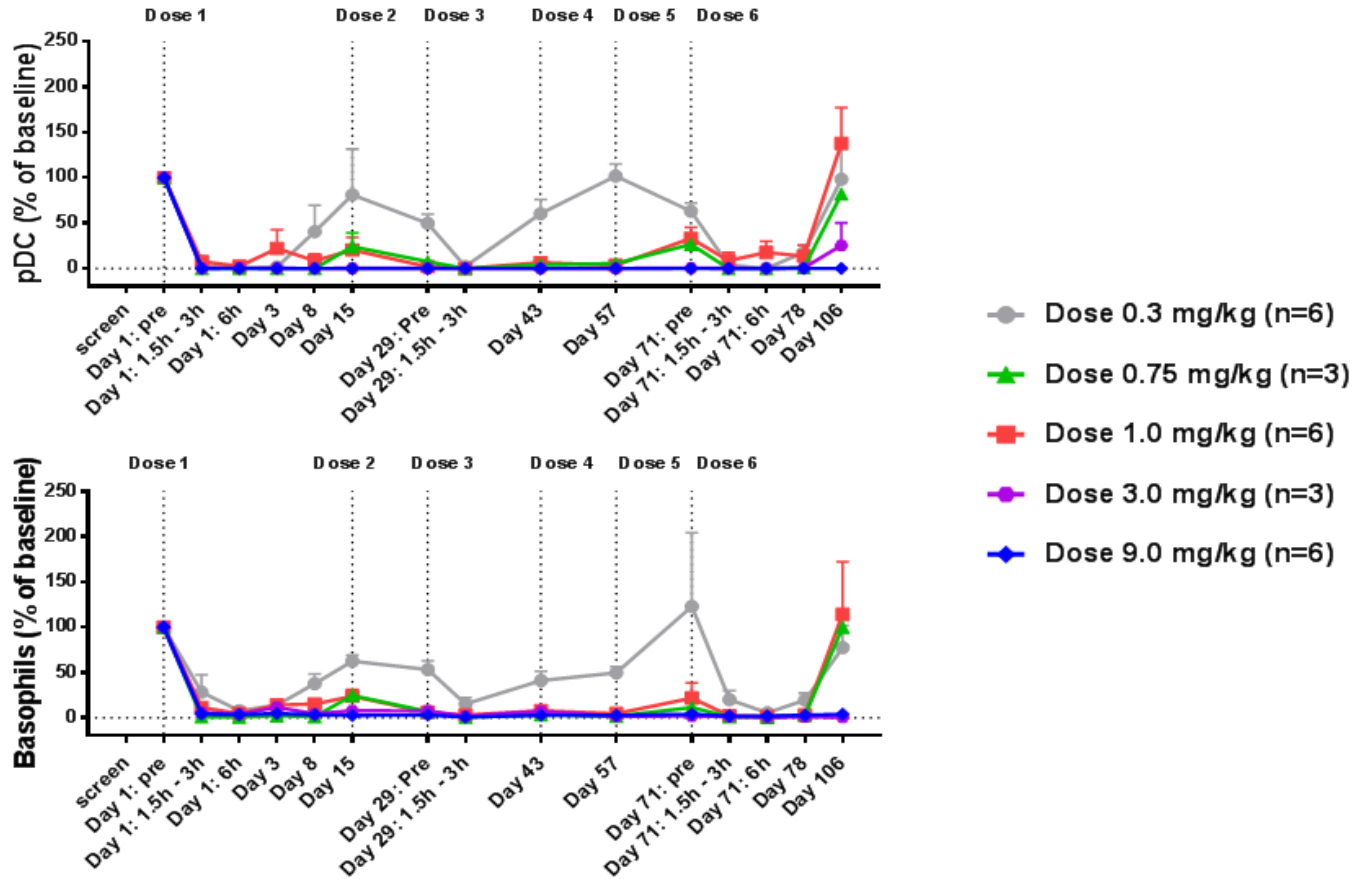
- Janssen responsible for all further oncology development

Milestone	Date
AML Phase 2 First Patient In*	August 2015

*JNJ-56022473

CSL362 – Acute Myeloid Leukaemia

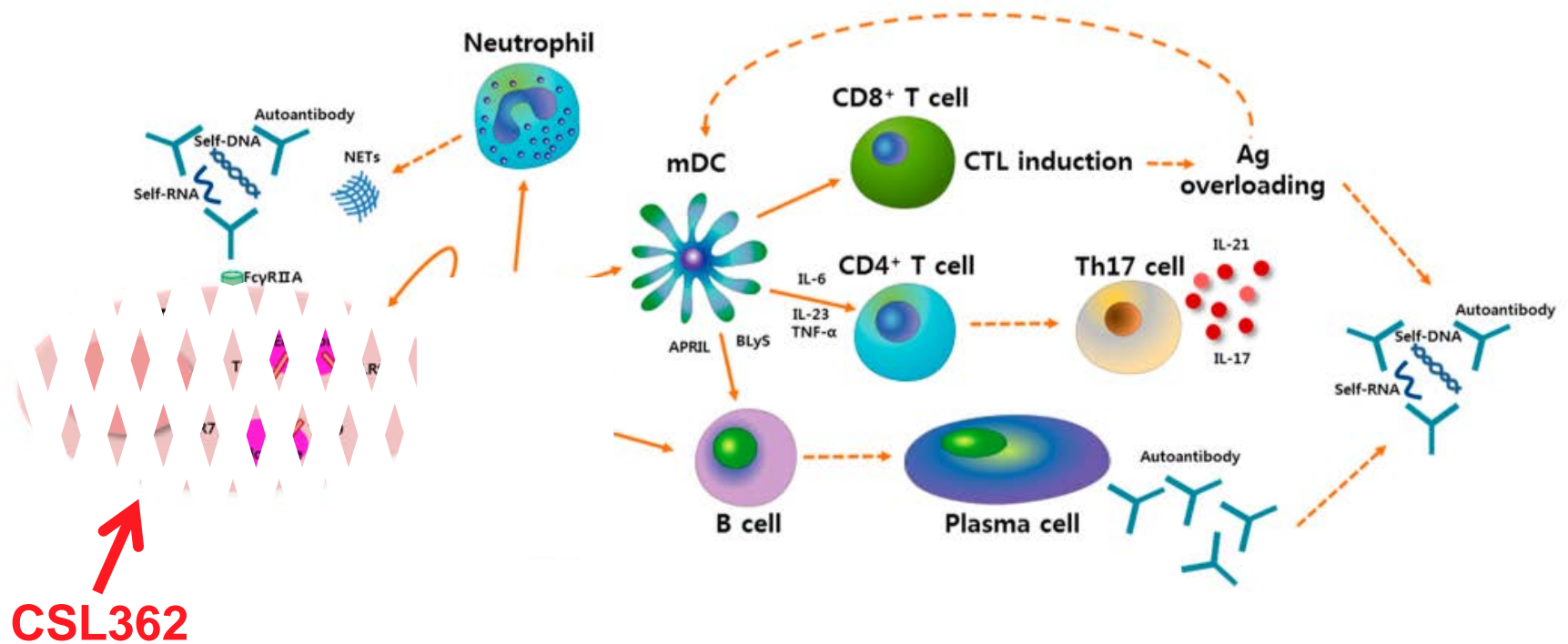
- CSL362 depletes biomarker pDC's and basophils in patients



Conclusions

- Manageable safety profile:
- Pre-medication with steroids required to prevent infusion reactions
- PD effects confirming CD123-targeted ADCC
- Rapid and full depletion of basophils and pDCs
 - Sustained depletion at CSL362 dose levels ≥ 3 mg/kg
- Saturation of CD123 receptor on monocytes at CSL362 dose levels ≥ 3 mg/kg (trough concentration $> 3\mu\text{g/ml}$)
- Conversion of MRD seen in a subset of pts treated with CSL362
- AML Phase 2 study commenced July 15 (Janssen partnership)

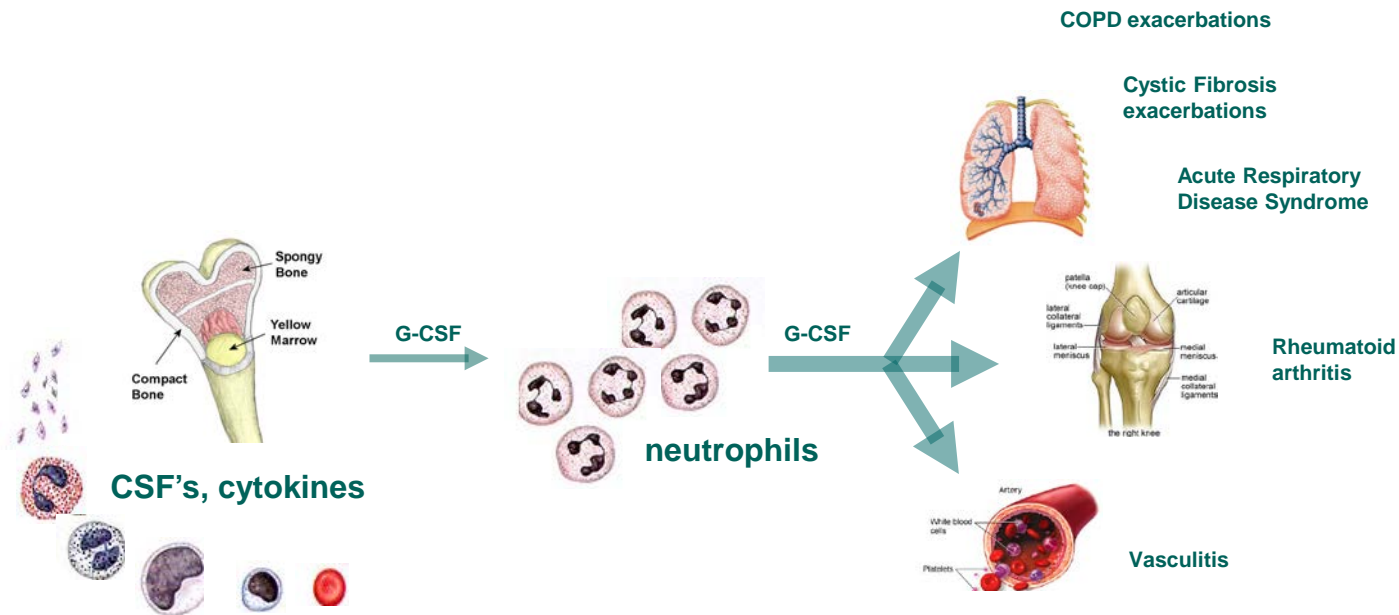
- pDCs contribute to a disease amplification loop in SLE



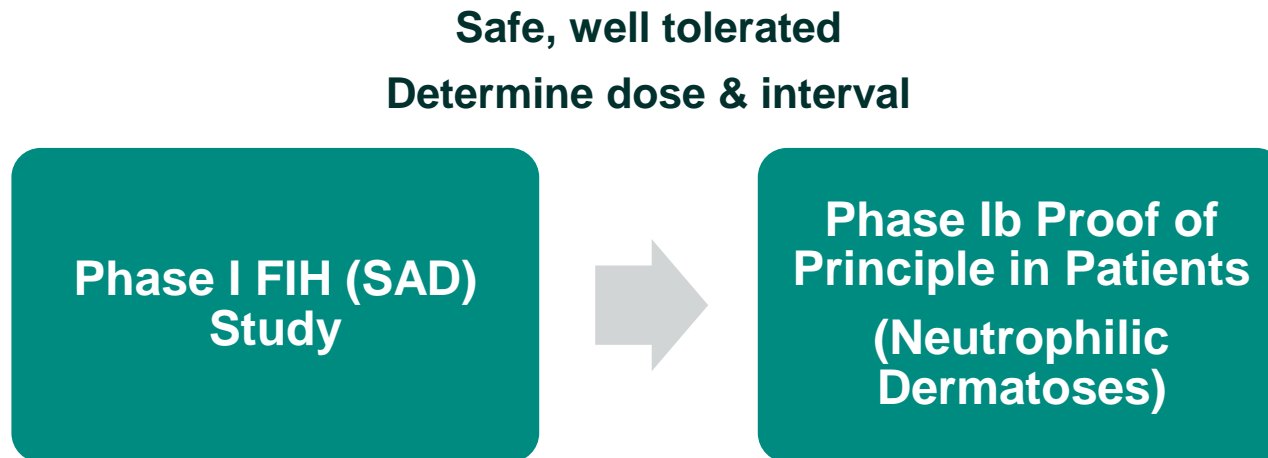
Janssen to commence exploratory study in SLE patients 2H 2016

CSL324 – anti-G-CSFR mAb

- Targeting the **G-CSF receptor** represents a novel approach to the treatment of neutrophil mediated pathologies
- Efficacy in multiple animal models of inflammatory disease



- Early clinical development strategy



- GLP toxicology completed, CSL324 safe and well tolerated
- Phase 1 to commence mid-late 2016

- Portfolio of early stage opportunities consistent with CSL commercial objectives

Immunoglobulins

Haemophilia

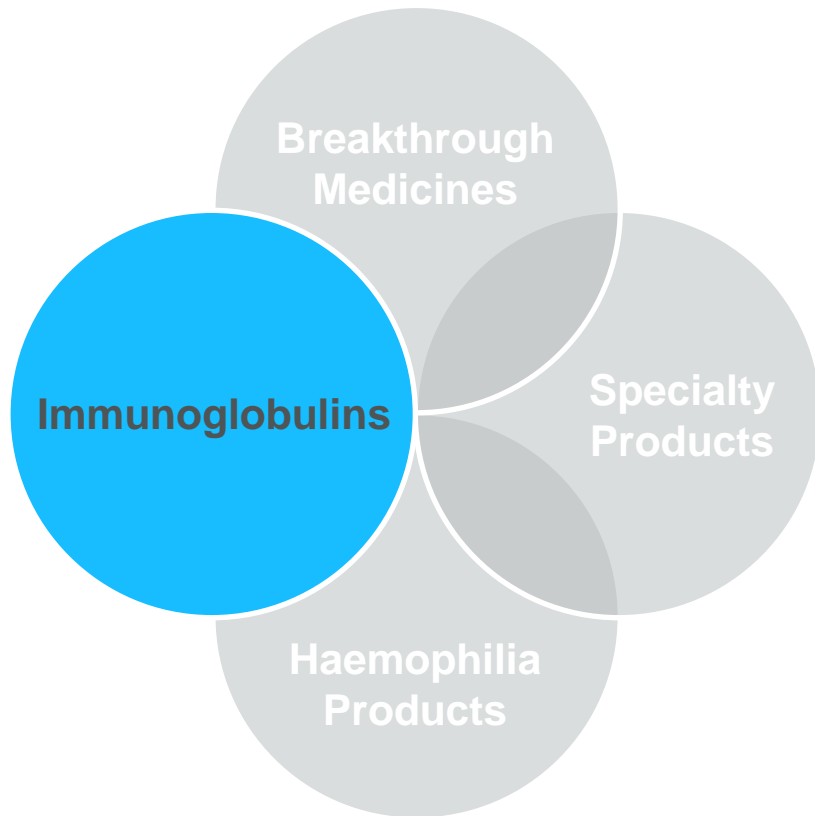
Specialty
Products

Breakthrough
Medicines

- Delivery of high quality candidates for clinical development
 - CSL362 (anti-IL-3R, partnered with Janssen Biotech)
 - CSL324 (anti-G-CSFR)
 - CSL312 (anti-FXIIa)

A dark teal world map is centered in the background of the slide. The continents are visible in a slightly lighter shade of teal.

Immunoglobulins



- Maintaining leadership position through focus on:
 - New Indications
 - Geographic expansion
 - Delivery options
- Key Focus
 - Hizentra[®]
 - Privigen[®]

Privigen[®]

- The first and only 10% liquid intravenous immunoglobulin (IVIg) therapy that is proline stabilized with room temperature storage up to 36 months

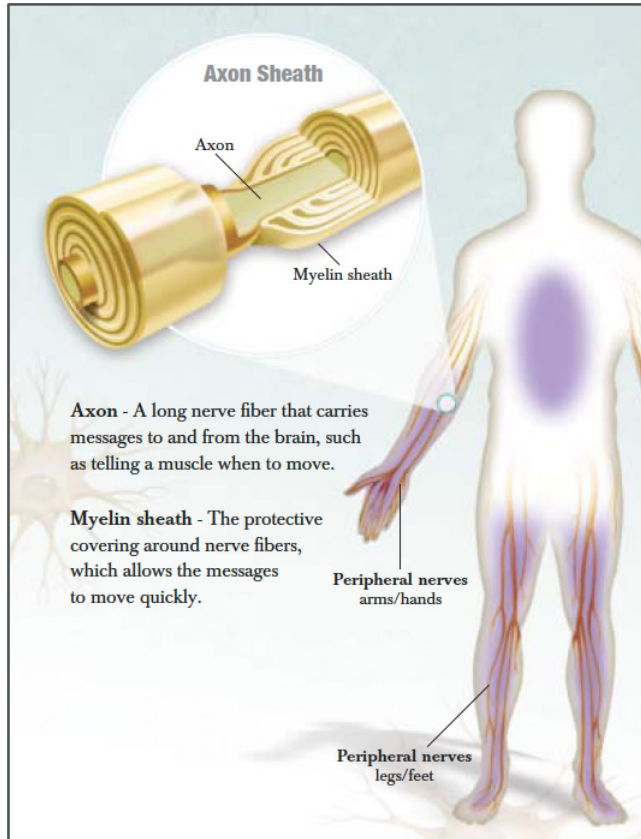


Hizentra[®]

- The first 20% high concentration low volume SCiG for convenient self administration providing steady-state Ig levels and an established long-term safety record with chronic administration



Chronic Inflammatory Demyelinating Polyneuropathy (CIDP)



- Build on Privigen® experience in CIDP
- Introduce SC infusion method
 - Ease of administration
 - Steady state levels, manages wear off effect

Hizentra®

- Pivotal study
 - Largest randomised placebo controlled study in CIDP (16 countries/69 sites)
 - Study screening completed (n=289)
 - 71 patients have completed the primary study
 - Last patient completing Q4 2016
- FDA and EMA submissions 2H 2017
- PMDA submission 2018



- 83% (n=100) patients said medication in its current form was easy to use (120 subject responses at week 9)



- Clinical trial highest dose/volume required – 160mL in avg 80kg patient
 - 4 infusion sites/session/~120 minute infusion time
 - 2 infusion sites/session x 2 days ~60 minute infusion time
- Infusion volume of 50mL/site well tolerated
- Infusion rate of 35 mL/hr tolerated

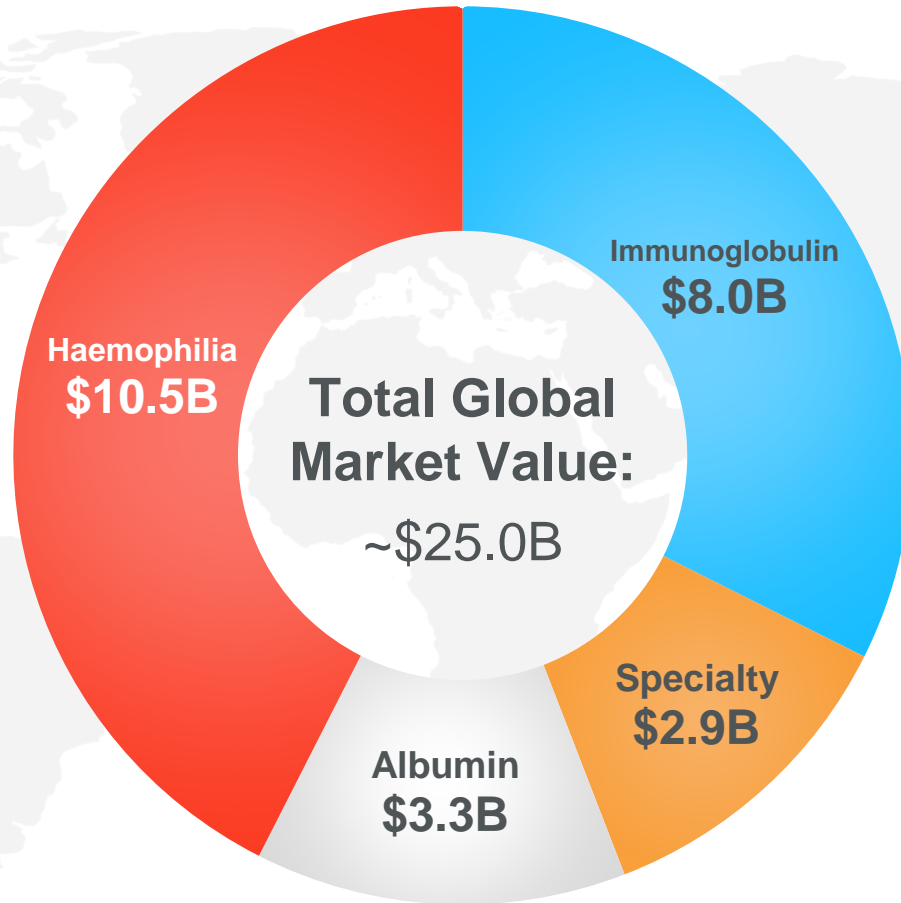


- ~3,500 Primary Immunodeficiency patients in Japan PID network (2014)
- Currently Hizentra® and 5% IVIG available to patients
- CSL will bring first high purity room temperature 10% IVIG product to Japan
- Commence Privigen® PID study Q3/4 2016
 - Agreement on study design reached with PMDA

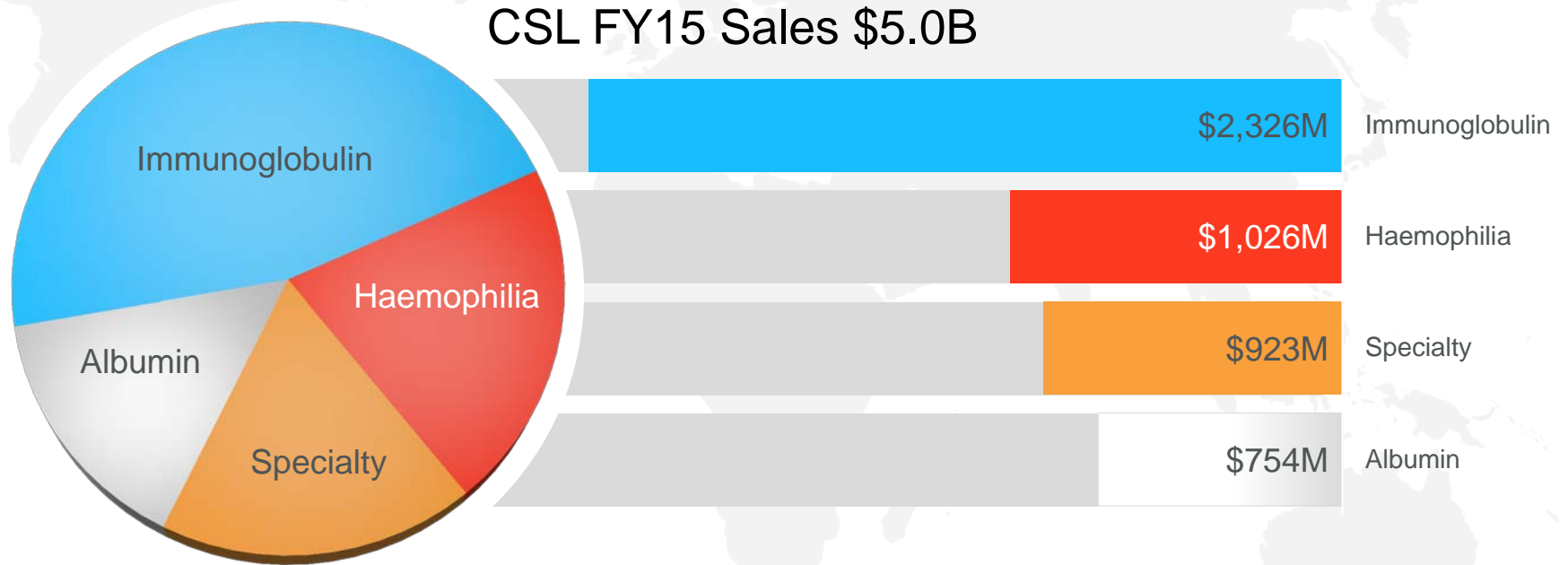


A dark teal world map is centered in the background of the slide. The map shows the outlines of continents and oceans in a lighter shade of teal.

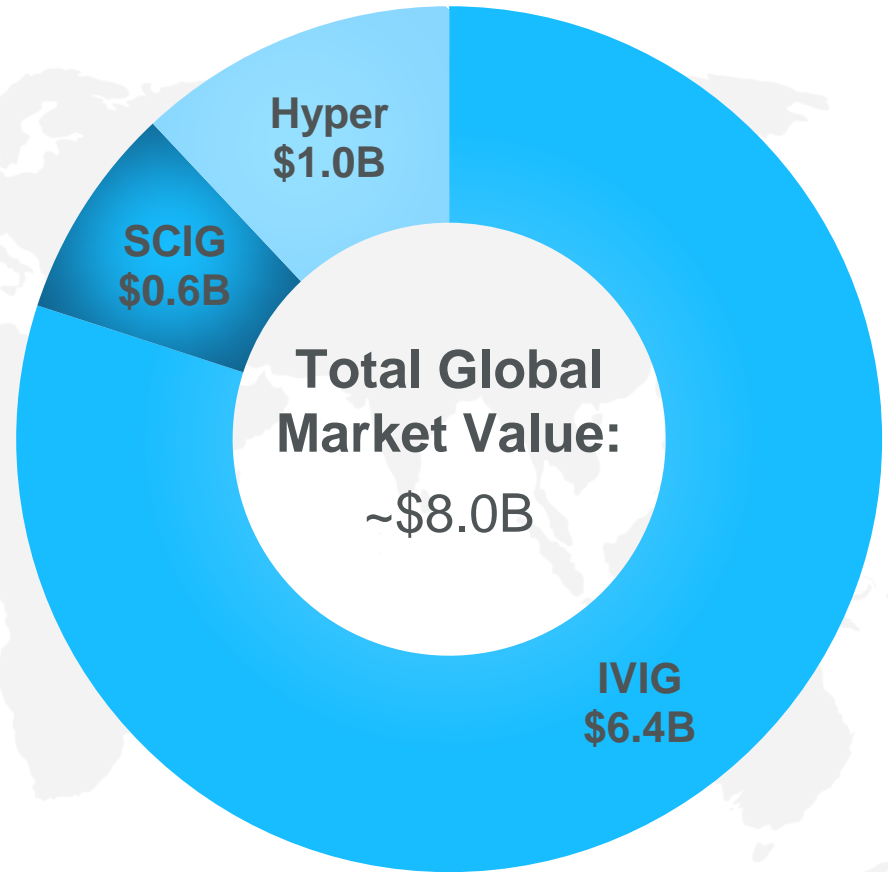
Commercial Opportunities and Activities



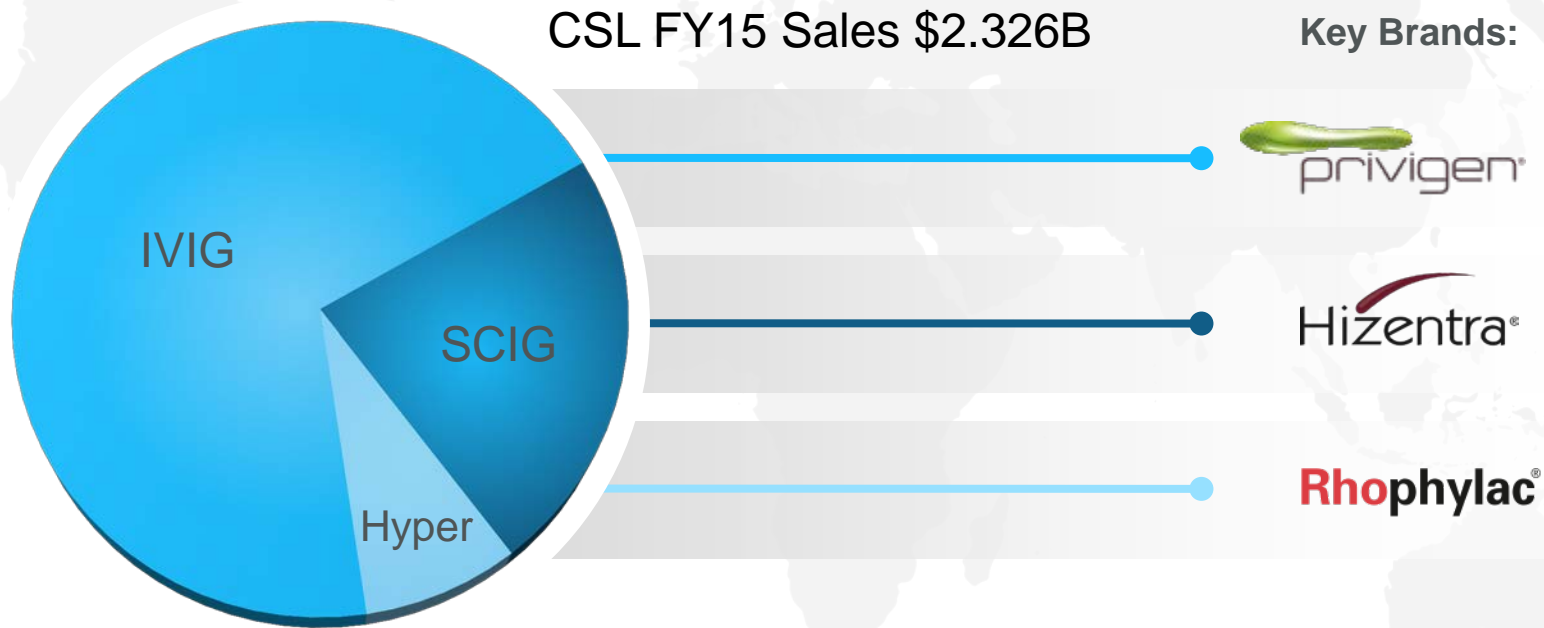
Sources: Company annual reports/financial schedules, MRB global Coagulation Factors Concentrate Market 2014 & 2015, MRB WW Plasma Fractionation Market 2014 interim report, CSL Actuals FY15



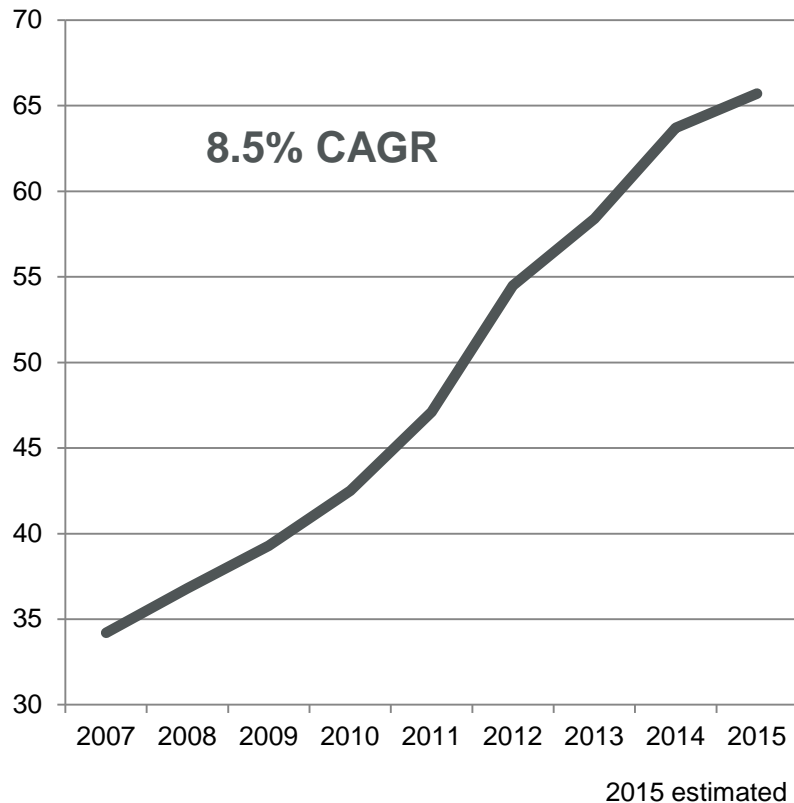
- IVIG continues to hold largest share of market
- Increasing acceptance and growth of SCIG



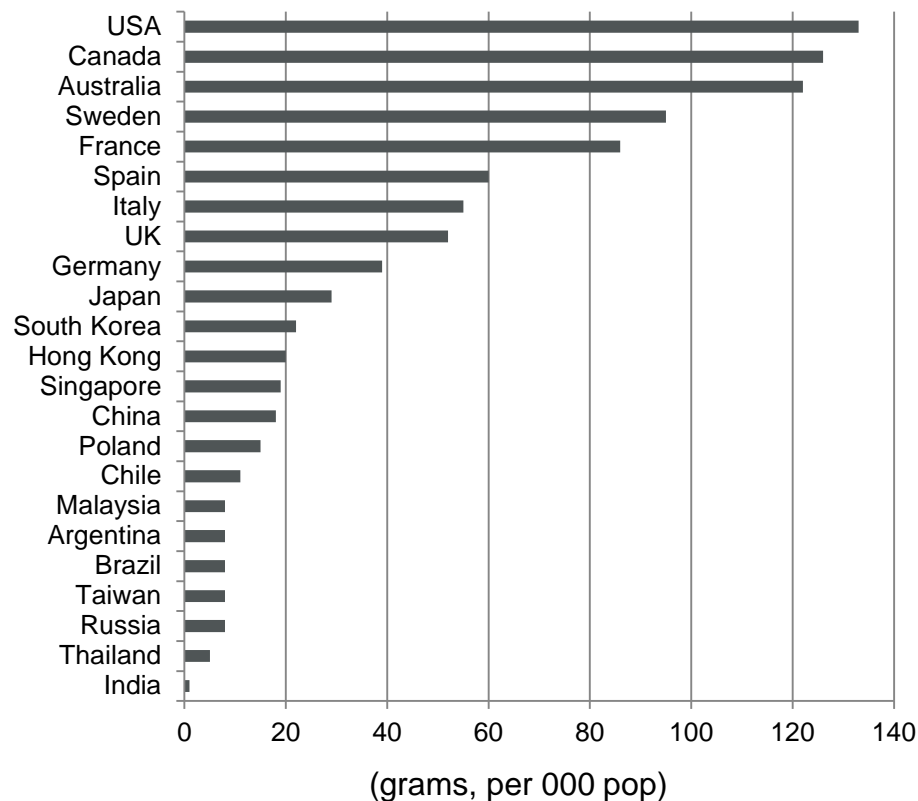
Sources: Company annual reports, Markets and Markets Plasma Fractionation Report 2015, based on 2014 data, CSL Actuals FY15



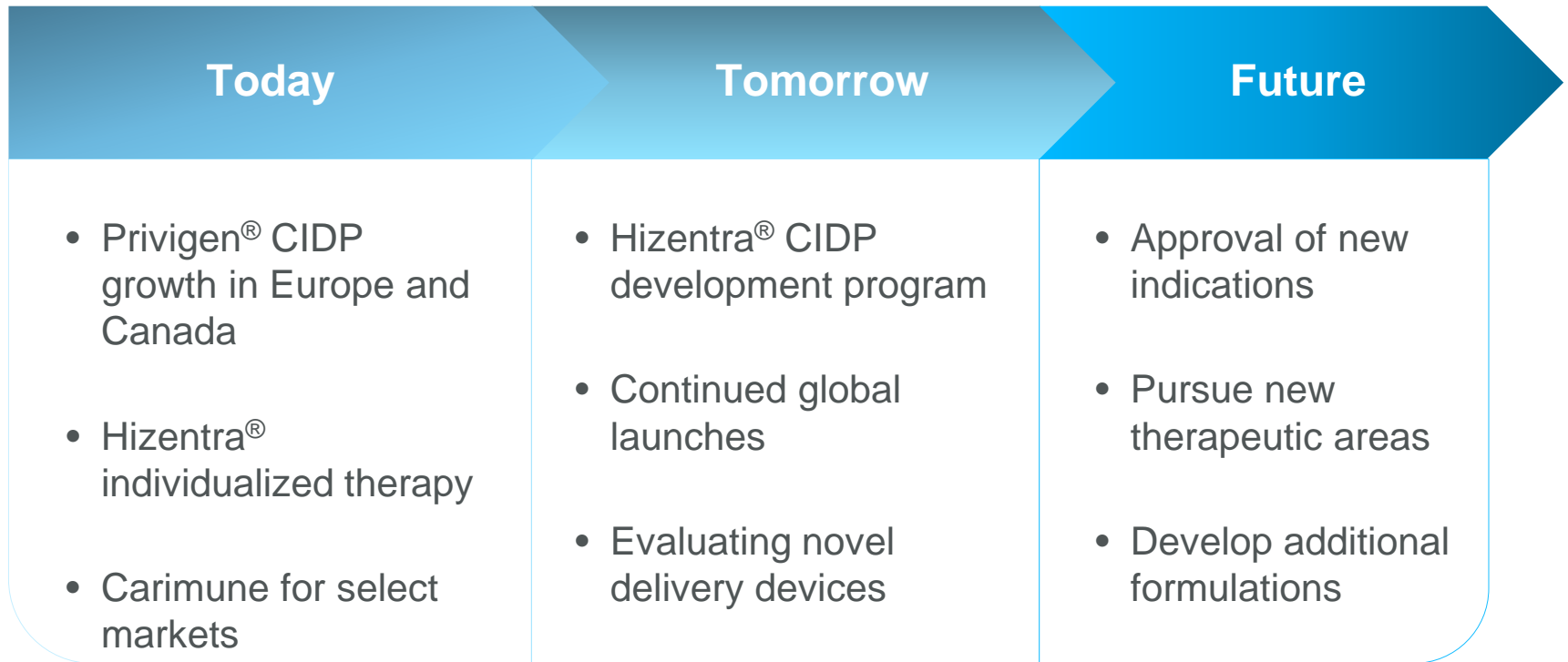
US-PPTA Data (Kg, 000)



Per-Capita IG Use

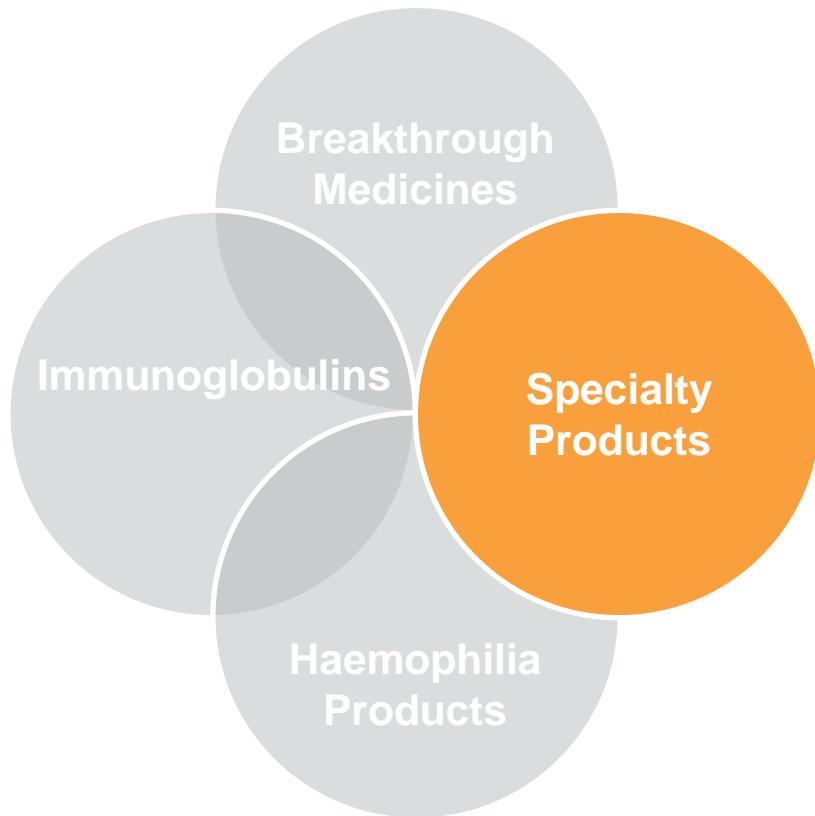


Sources: PPTA. Note: PPTA reported incomplete data for 2011. MRB 2011



A dark teal world map is centered in the background of the slide. The text "Specialty Products" is overlaid in white, bold font in the center of the map.

Specialty Products



- Leveraging high quality broad product portfolio through:
 - New markets
 - Novel indications
 - Novel modes of administration
- Key Focus
 - Beriplex[®]/Kcentra[®]
 - Berinert[®], CSL830
 - Zemaira[®]/Respreeza[®]

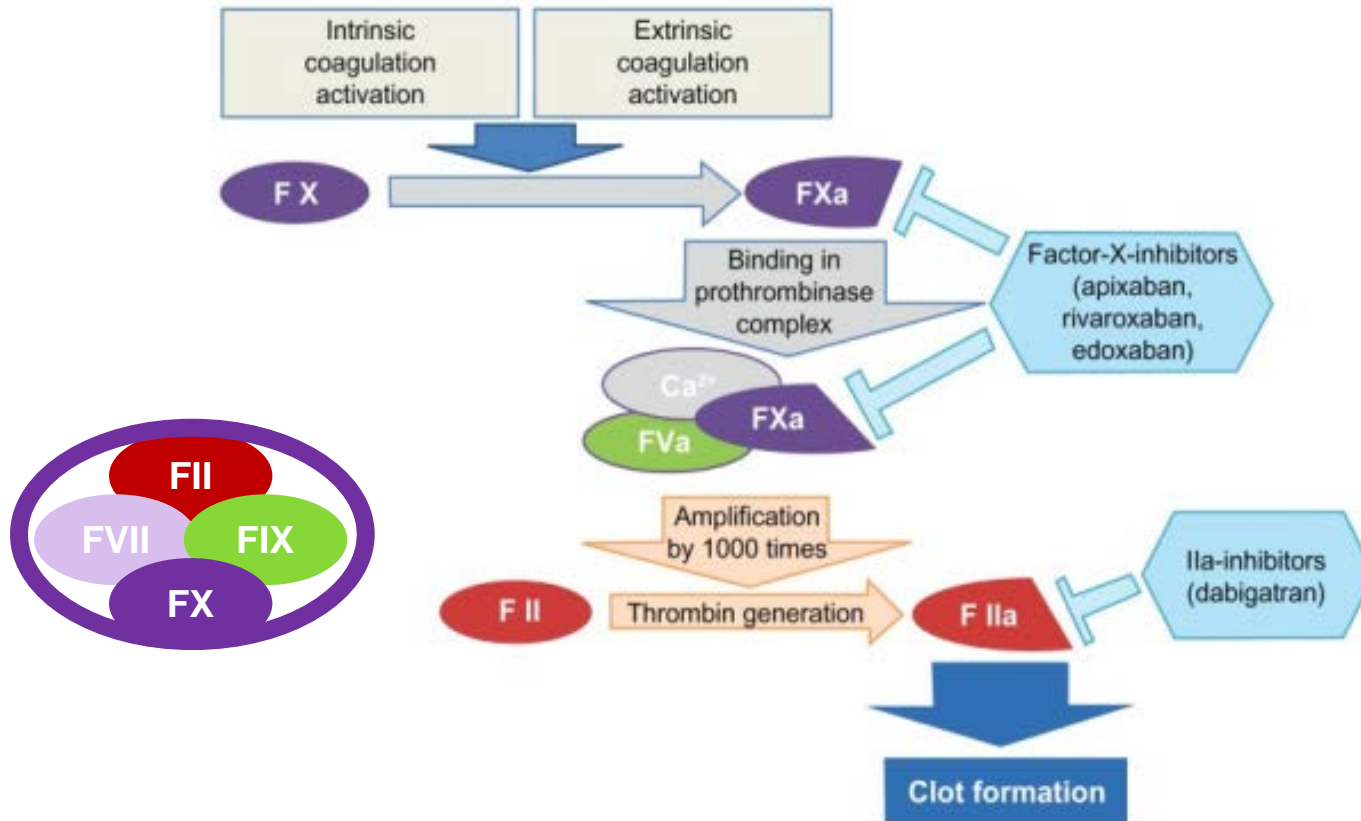
- Prothrombin Complex Concentrate = PCC (4FPCC)
 - Vitamin K-dependent coagulation factors (FII, FVII, FIX, FX)
- Indicated as an agent to reverse the effects of vitamin K antagonists (e.g. Warfarin) for:
 - Bleeding related to over-anticoagulation
 - Patients needing urgent surgery
- Expanding into new geographies
- Explore utility in treating patients bleeding with receiving Novel Oral Anticoagulants (NOACs) – Factor Xa and Factor IIa inhibitors

Kcentra[®]
Beriplex[®] P/N

- Clinical study evaluating vitamin K antagonist reversal in acute bleeding and for surgery
 - Open label study almost completed
 - Demonstrated effective INR reversal at 30 minutes
 - No safety concerns
 - PMDA submission Q2 2016
- Availability of Beriplex[®] will address a high unmet medical need specifically highlighted by Japan Ministry of Health and Welfare

Beriplex[®] P/N

Coagulation Cascade and Mechanisms of Anti-coagulation



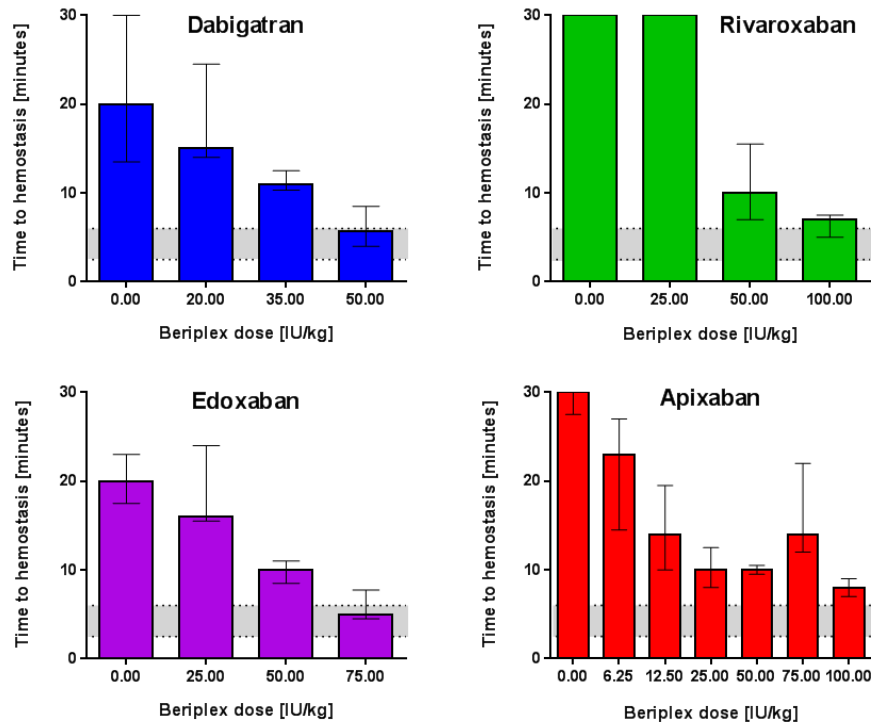
Reversal of Anti-coagulation Effect in a Bleeding Patient

- Antidotes being developed to reverse the anti-coagulation activity of Factor Xa or IIa inhibitors
 - Studies demonstrate normalisation of clotting tests
 - Bleeding studies not yet available
- 4FPCCs in healthy volunteers also reverse prothrombin time prolongation
 - 50IU/kg Beriplex[®] dose reversed the anticoagulant effect of edoxaban¹

Can bleeding be stopped or controlled to allow for urgent medical or surgical care?

References: 1. Circulation. 2014;CIRCULATIONAHA.114.013445 published online before print November 17 2014

4FPCC in the Control of Bleeding – Animal Data



Data represent medial plus interquartile range. Shaded area represents sham treated control range.

References: Pragst et al. JTH 2012; 10(9): 1841-48. Herzog et al. Thromb Res 2014; 134(3):729-36. Dickneite and Hoffman 2014; 111(2):189-98. Herzog et al. Anaesthesiology 2015; 122(2):387-98. Herzog et al. Thromb Res 135 (2015) 554–560. Herzog et al. Critical Care 205; 19(1):P348.

Kcentra[®] / Beriplex[®] in Treatment of Acute Major Bleeding Related to FIIa or FXa Inhibitor Use

- USA and international expert groups recommend inclusion of PCC in guidelines as agent to reverse anticoagulant effect of NOACs^{1,2,3}
- Hospital treatment algorithms increasingly including PCC
- Clinical program under consideration to assess control of severe bleeding

References: 1. Clinical Practice Guide on Anticoagulant Dosing and Management of Anticoagulant-Associated Bleeding Complications in Adults. *American Society of Hematology* 2011. 2. EHRA Practical Guide on the use of new oral anticoagulants in patients with non-valvular atrial fibrillation: executive summary. *European Society of Cardiology* 2013. 3. Management of major bleeding complications and emergency surgery in patients on long-term treatment with direct oral anticoagulants, thrombin or factor-Xa inhibitors: Proposals of the Working Group on Perioperative Haemostasis (GIHP) 2013

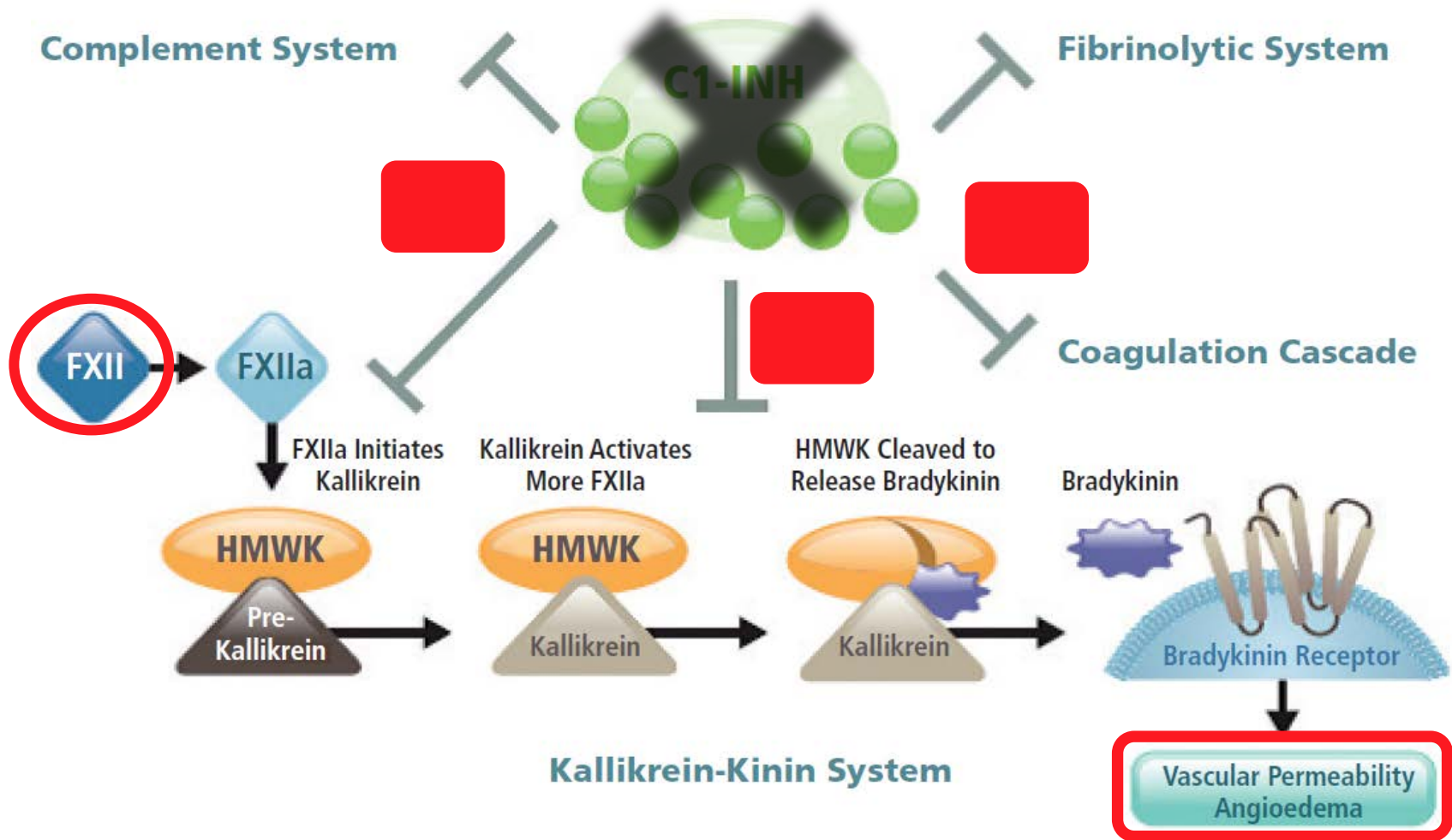
Berinert[®]

- Plasma derived, pasteurised and nanofiltered concentrate of C1 Esterase Inhibitor indicated for the intravenous treatment of acute abdominal laryngeal or facial attacks of Hereditary Angioedema (HAE) in adults and adolescents



CSL830

- Plasma derived, pasteurised and nanofiltered higher concentrated C1 Esterase Inhibitor indicated for the routine prevention of Hereditary Angioedema (HAE) attacks in adult and adolescent patients



HMWK=High molecular weight kininogen.



- HAE is unpredictable
- All body sites are associated with impairment; not just laryngeal attacks
- It impacts people not just during attacks, but also in between attacks
- Attacks are associated with significant anxiety: this anxiety is proportionate to the severity and pain of individual attacks
- Results in missed opportunities in terms of school and career, as well as significant absences from work for both patients and carers

The HAE-Burden of Illness Study in Europe (HAE-BOIS) 2012-4

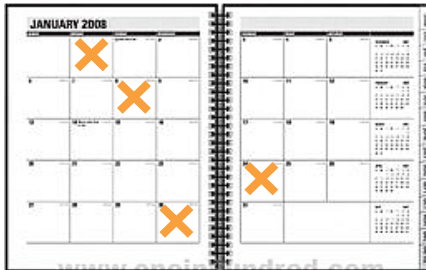
References: Caballero T. *et al. Allergy Asthma Proc.* 2013; Aygören-Pürsün E *et al. ISPOR* 2012; Bygum *et al. Acta Derm Venereol* 2015.

HAE attack frequency does not link with severity

1-24
attacks/year



25-52
attacks/year



53-104
attacks/year



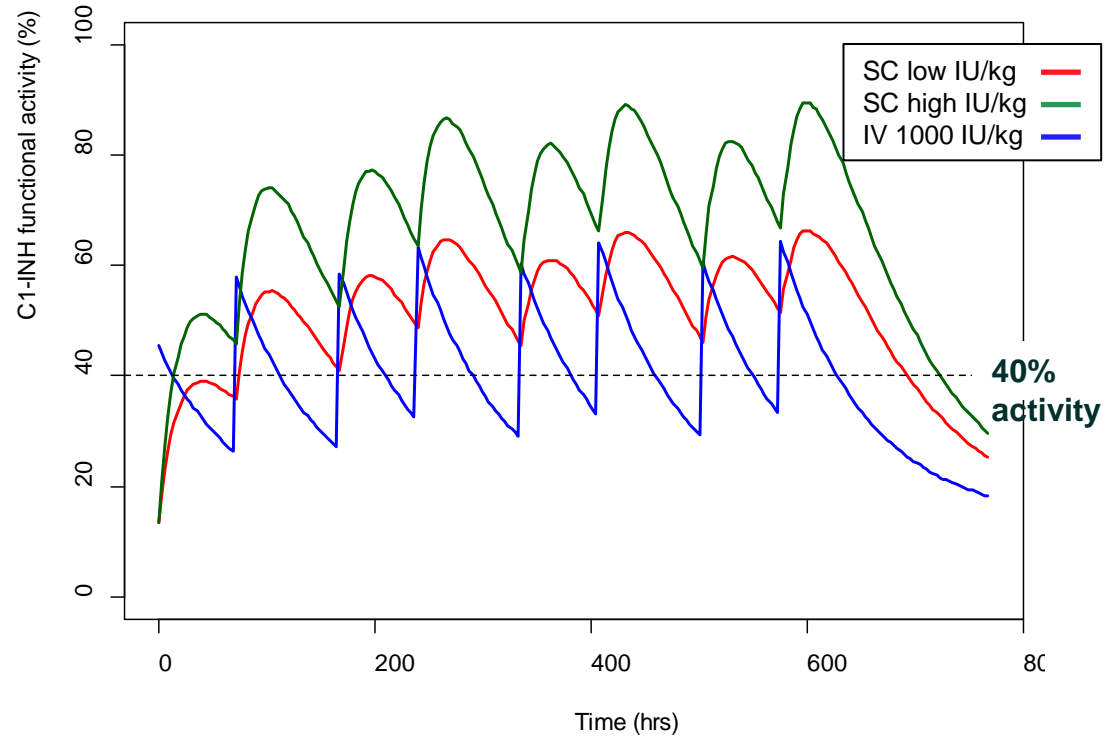
>104
attacks/year



Still has significant
disease burden

Subcutaneous Dosing Maintains Trough above Protective C1-INH Level

- SC trough remains above predictive 40% threshold
- Potential for reduced attack rate



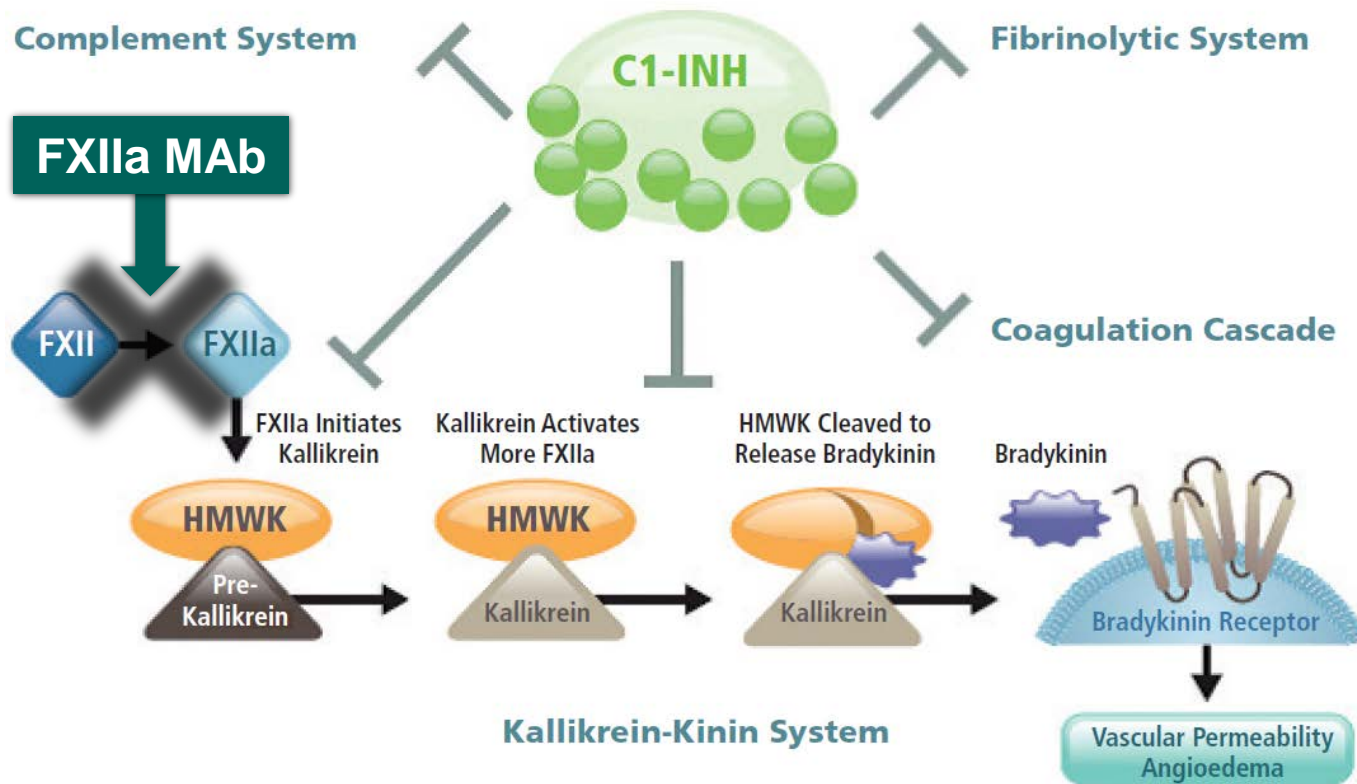
References: Zuraw et al. Allergy 2015; 70: 1319-1328

- Phase III study rapidly completed enrollment (n=90)
- Patients moving into extension study
 - Allowed for individualised dosing
 - Well tolerated
 - No withdrawals for lack of efficacy
- Submission to FDA and EU anticipated 2H 2016

COMPACT

Clinical Studies for Optimal Management in
Preventing Angioedema with low-volume
subcutaneous C1-inhibitor Replacement Therapy

Bringing new technologies to the HAE space CSL312 – Anti XIIa monoclonal antibody



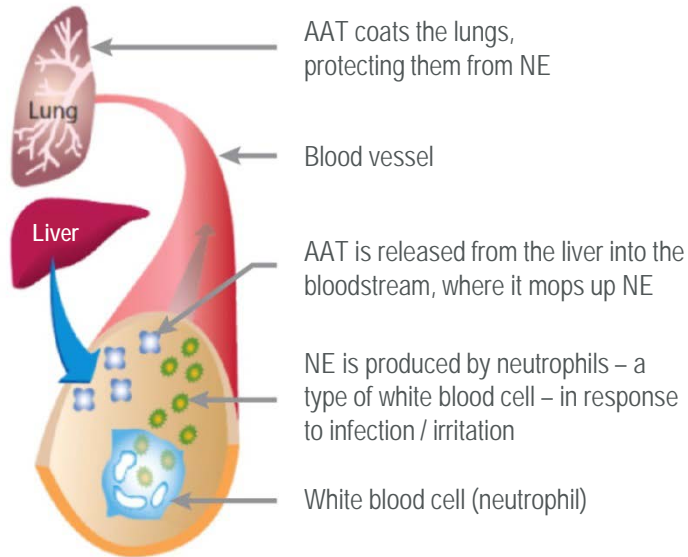
HMWK=High molecular weight kininogen.

- New molecule and target – potential benefit:
 - In refractive patients
 - For HAE types I, II and III as well as ACE inhibitor induced oedema
 - For subcutaneous delivery every 2 to 4 weeks
 - Other indications
- Commence first in man studies 2H 2016

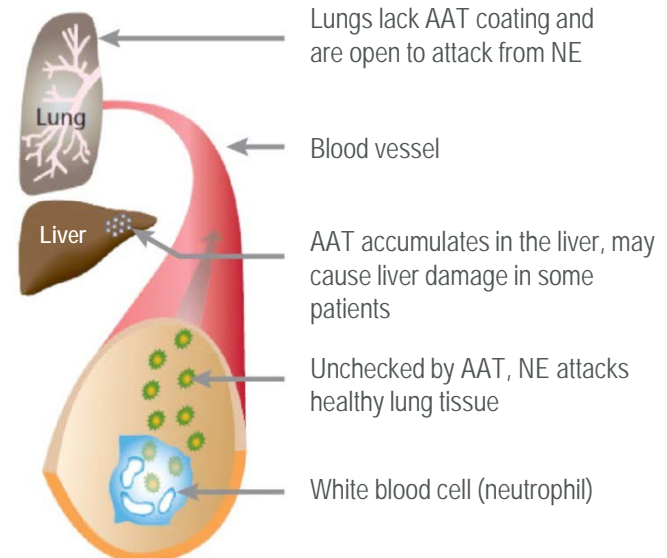
- Respreeza® is a highly purified alpha-1 therapy approved by EMA for maintenance treatment to slow the progression of emphysema in adults with severe alpha-1 antitrypsin deficiency (AATD)
- RAPID trial is largest placebo controlled study in patients with AATD (Chapman KR *et al. Lancet* 2015; 386: 360-368)
- Respreeza® approved by EMA in August 2015



Normal



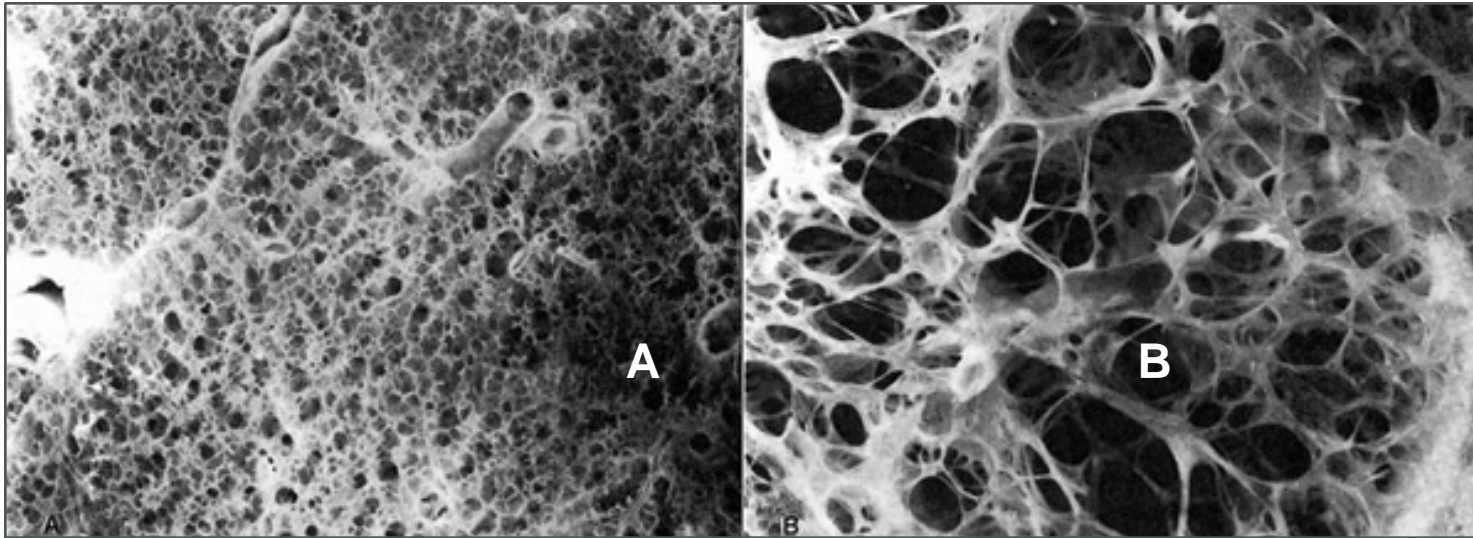
Alpha-1 antitrypsin deficiency (AATD)



References: CSL Behring Data on File. Alpha-1 Antitrypsin Deficiency Counseling Tool 2008

AATD Leads to Lung Tissue Deterioration

Images from high-resolution computerised tomography scanning



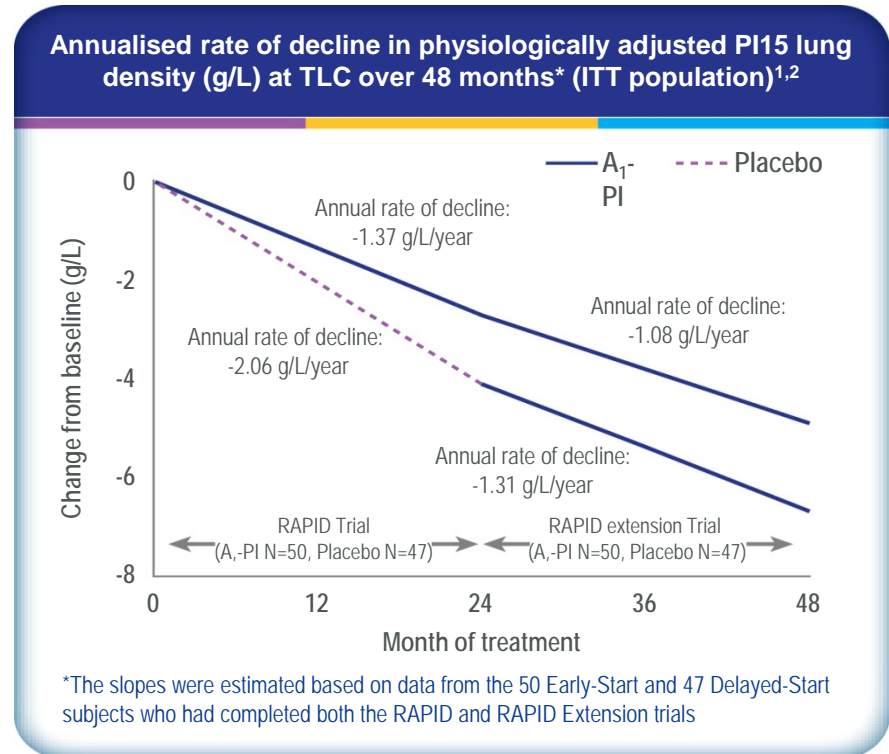
normal lung (left; A)

severe emphysema (right; B)

References: <http://www.ctsnet.org/portals/thoracic/newtechnology/article-4>

RAPID Program – Respreeza[®] Slowed Rate of Lung Density Decline from Baseline

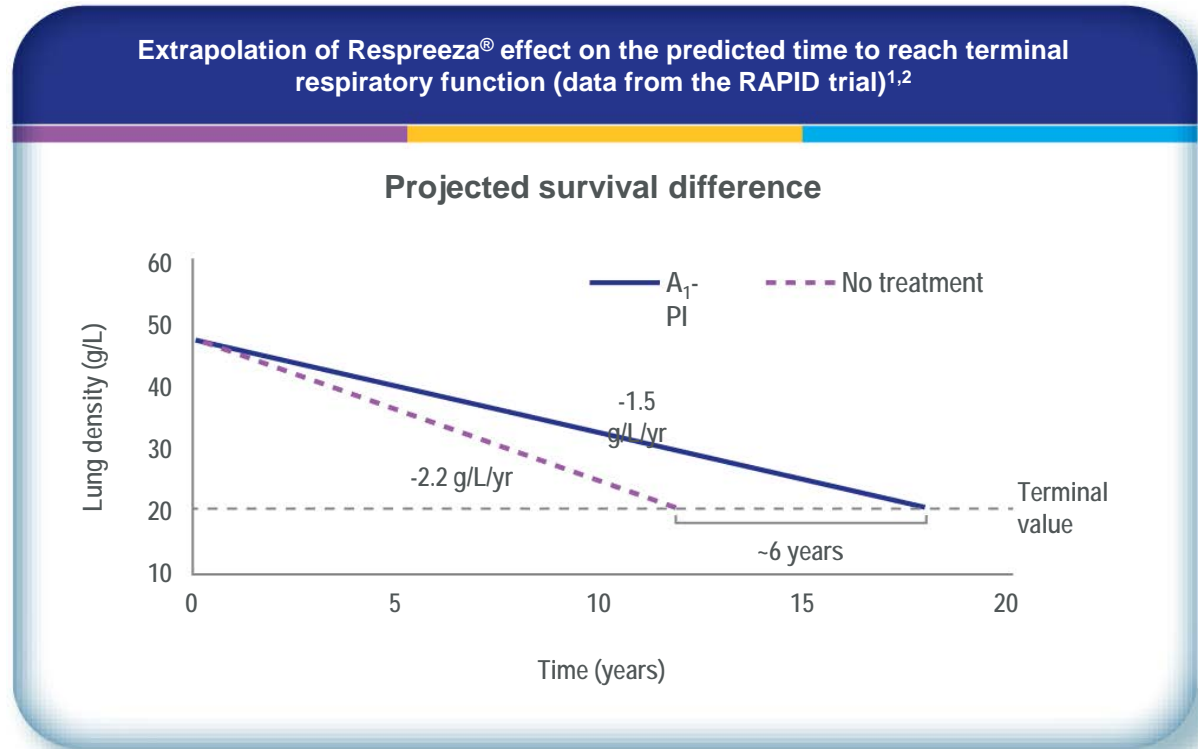
- Difference in annual decline from baseline to Month 24 favours Early-Start
- Lost lung density in the Delayed-Start group could not be regained
- Early-Start group maintained a therapeutic benefit for 4 years



References: 1. Chapman, KR *et al. Lancet* 2015; 386: 360-368. 2. CSL Behring. Data on File. Dec 2013 Interim Analysis of Extension Trial

Estimate of Long-Term Clinical Benefit^{1,2}

- RAPID program demonstrates a specific treatment has been shown to delay the progression of and modify disease in patients with severe AATD

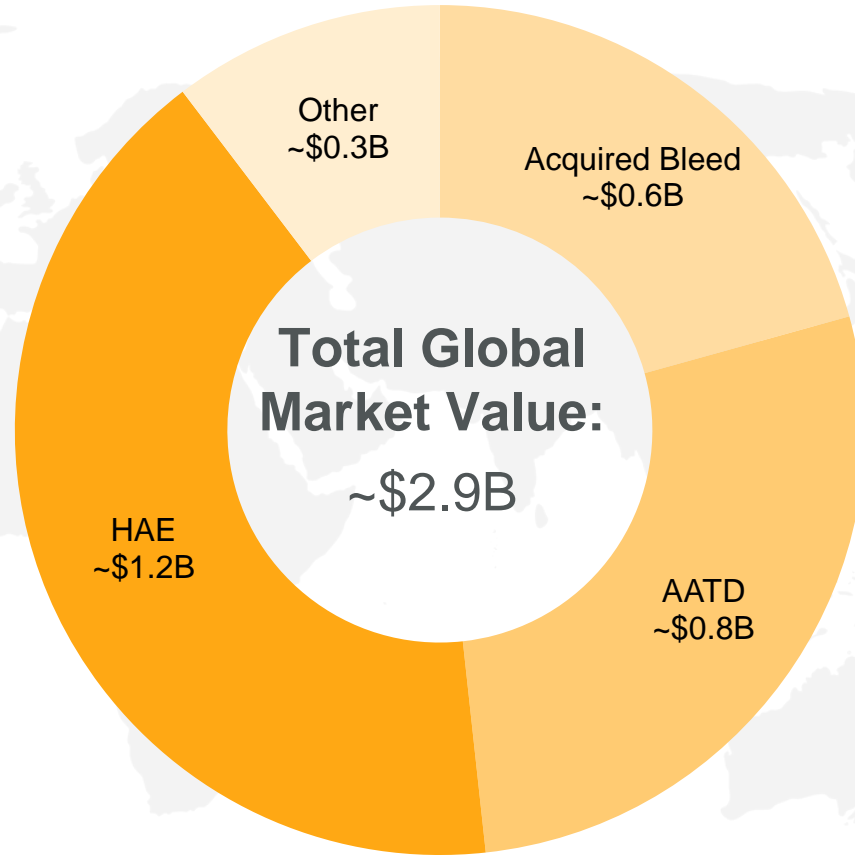


Extrapolation based on: 1. Chapman, KR *et al. Lancet* 2015; 386: 360-368. 2. CSL Behring. Data on File. RAPID Trial Clinical Study Report. November 2013

A dark teal background featuring a faint, light-colored world map. The map shows the continents of North America, South America, Europe, Africa, Asia, and Australia. The text is centered over the map.

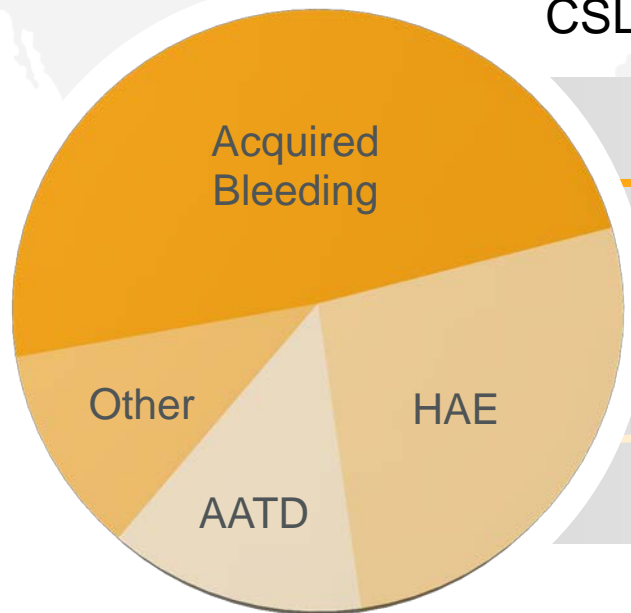
Commercial Opportunities and Activities

- Orphan/rare diseases
- Unmet medical need
- Often under or misdiagnosed
- Awareness and education
- Significant patient value



Sources: Company annual reports/financial schedules, based on 2014 data, MRB WW Plasma Fractionation Market 2014 interim report, CSL Actuals FY15

- Increase demand
- Geographical expansion
- Appropriate diagnosis



CSL FY15 Sales \$923M

Key Brands:

Kcentra[®]
Beriplex[®] P/N
RiaSTAP[®]

BERINERT[®]

Zemaira[®]
Respreeza[®]

Warfarin Reversal

- Indicated for patients with acute major bleeds, requiring urgent surgery or invasive procedure
- Data published in Lancet
- Utilised by over 2,000 hospitals in the US
- Broad EU experience and expansion in emerging markets
- Japan clinical development program ongoing

NOAC Reversal

- Evaluating clinical development options
- Potential benefit in patients with significant bleeds
- Institutional guidelines, expert groups and scientific societies
- Animal and human data published in peer-review journals
- Prospective registry data

<i>Berinert</i> [®]	<i>CSL830</i>	<i>CSL312</i>
<ul style="list-style-type: none">• C1-INH for acute treatment• Fast relief of pain and swelling• Short-term prophylaxis in EU• Geographic expansion (Asia, LATAM)	<ul style="list-style-type: none">• C1-INH for prophylaxis• Phase III pivotal study fully enrolled• Subcutaneous delivery• Steady-state blood levels could reduce breakthrough attacks• Eliminates need for patient IV ports• US and EU filing targeted for 2016	<ul style="list-style-type: none">• Fully human, high affinity mAb targeting FXIIa• Activation of FXIIa is key step in complement pathway• Effective in animal models for HAE I, II and III and ACE inhibitor induced oedema• Subcutaneous delivery every 2 to 4 weeks• Phase I 2H 2016

Zemaira®

- Indicated in the US for chronic augmentation and maintenance therapy
- Ongoing education programs to support appropriate diagnosis
- DNA1 test kit to confirm known/unknown variants
- Geographic expansion in Latin America

Respreeza®

- Approved in the EU for hereditary emphysema 3Q2015
- EU API market is ~\$200M USD
- Demonstrated to slow the progression of emphysema
- Rapid data published in the Lancet
- Only highly purified formulation available in EU

A dark teal world map is centered in the background of the slide. The continents are visible in a slightly lighter shade of teal.

Q&A

A dark teal world map is centered in the background of the slide. The word "Break" is written in white, bold, sans-serif font over the map, positioned in the center of the frame.

Break

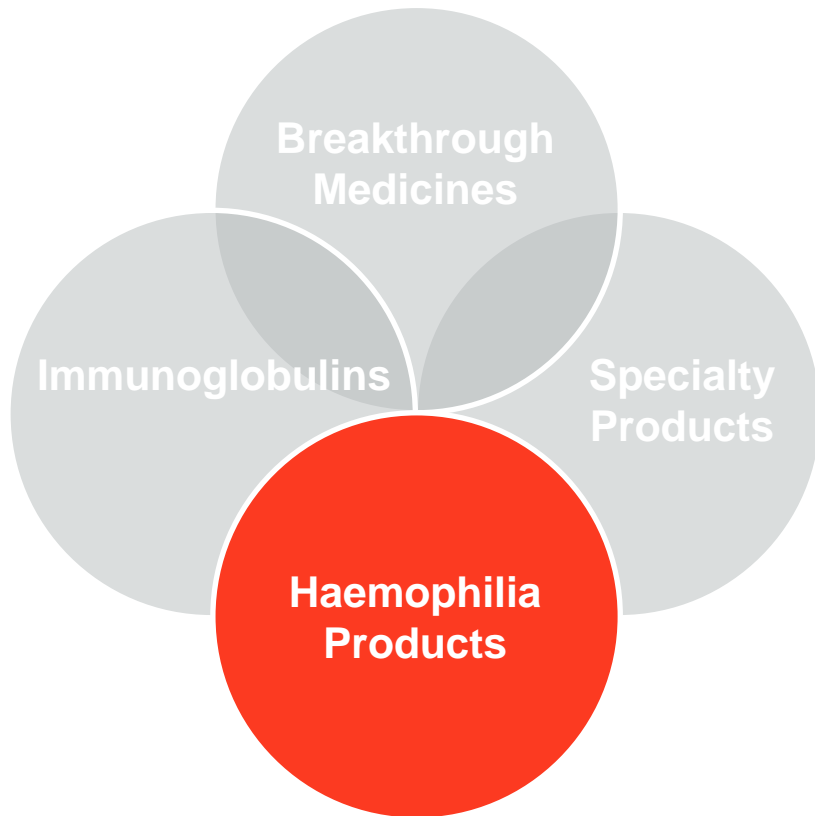
A dark teal world map is centered in the background of the slide. The map shows the outlines of continents and oceans in a lighter shade of teal.

Investor R&D Briefing

December 10, 2015

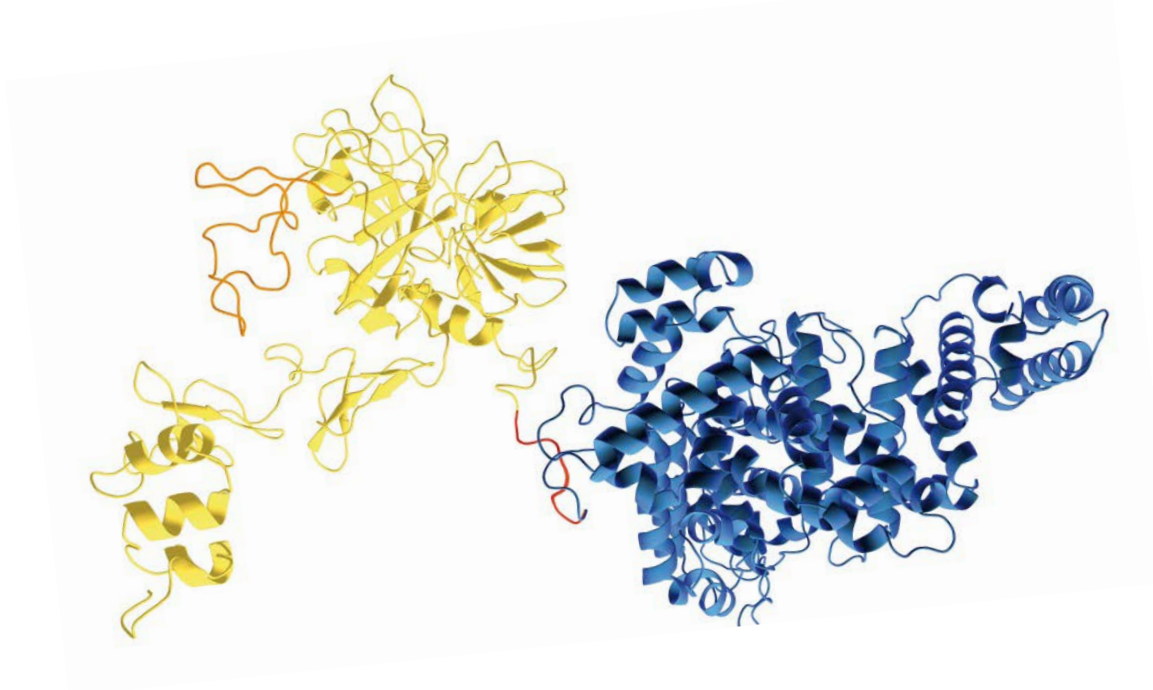
A dark teal world map is centered in the background of the slide. The map shows the outlines of continents and oceans in a lighter shade of teal.

Haemophilia Products



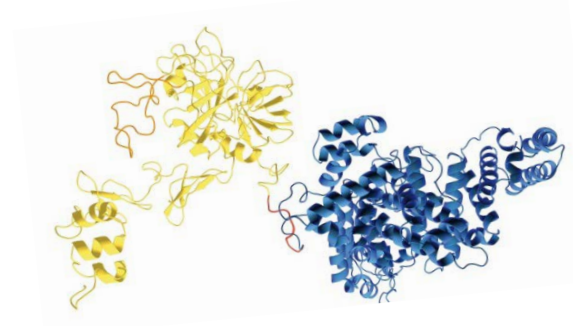
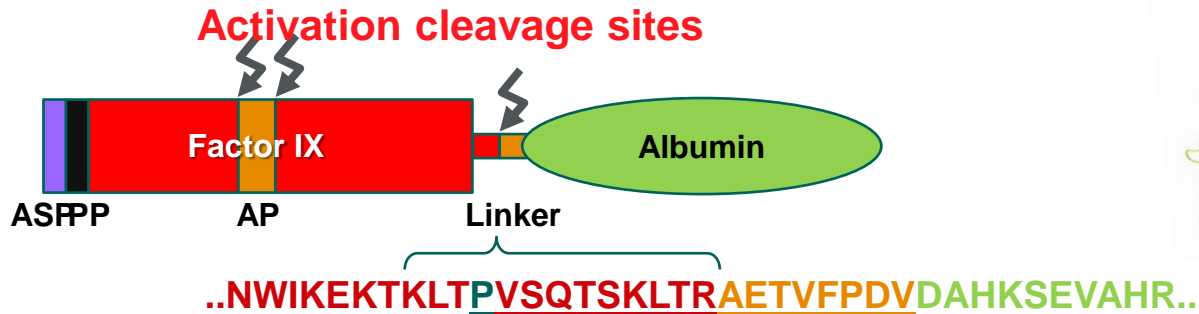
- Supporting and enhancing plasma products and developing novel recombinant portfolio with focus on:
 - Scientific and product innovation
 - Patient benefit
- Key Focus
 - IDELVION™ (rIX-FP)
 - AFSTYLA™ (rVIII-Single Chain)
 - Long acting rVIIa-FP

PROLONG-9FP Clinical Development Program IDELVION™ (rIX-FP)



References: www.clinicaltrials.gov

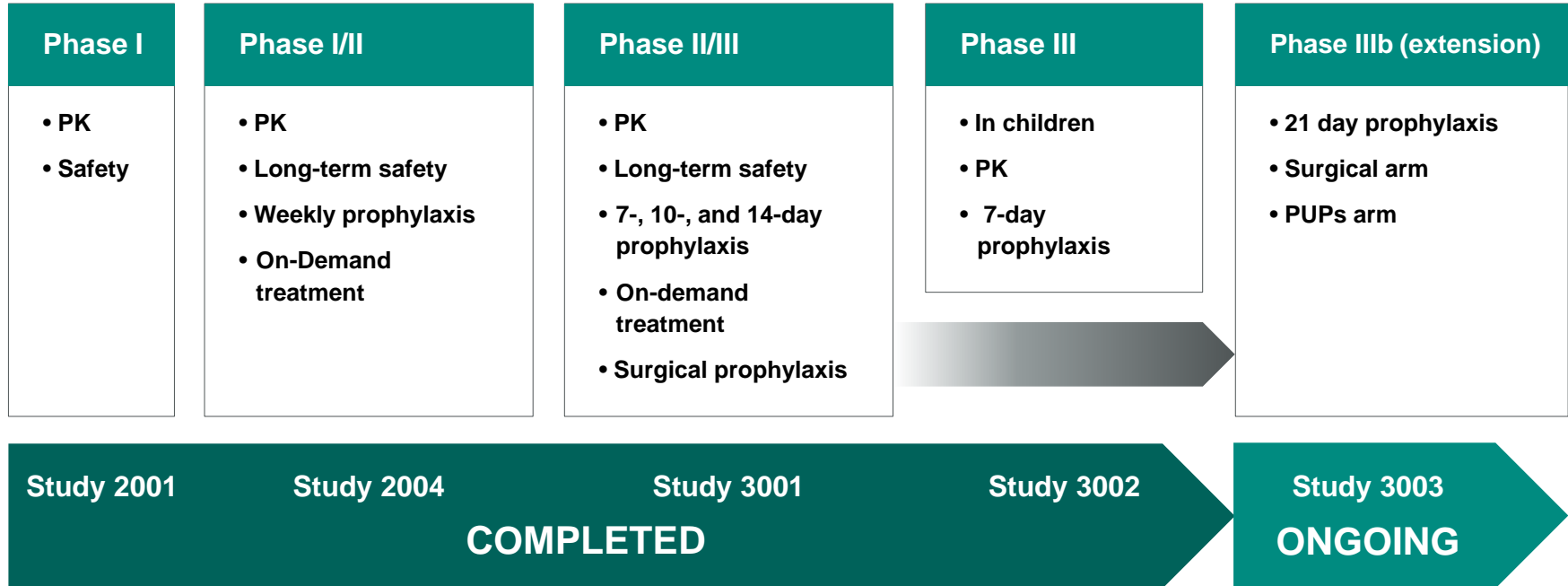
PROLONG **9** FP



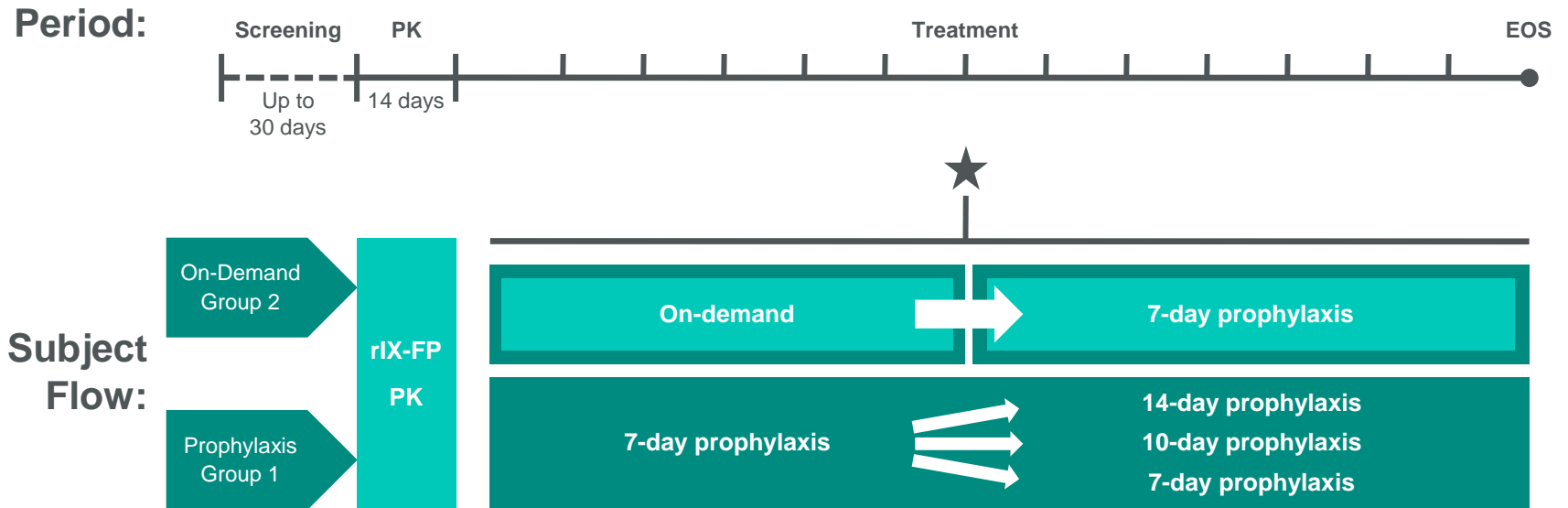
- rIX-FP is
 - A recombinant protein purified from CHO cells
 - Generated by the genetic fusion of recombinant albumin to rFIX

PROLONG-9FP PROGRAM

Prove longer duration of action of rIX-FP addresses existing unmet medical needs by providing less frequent dosing

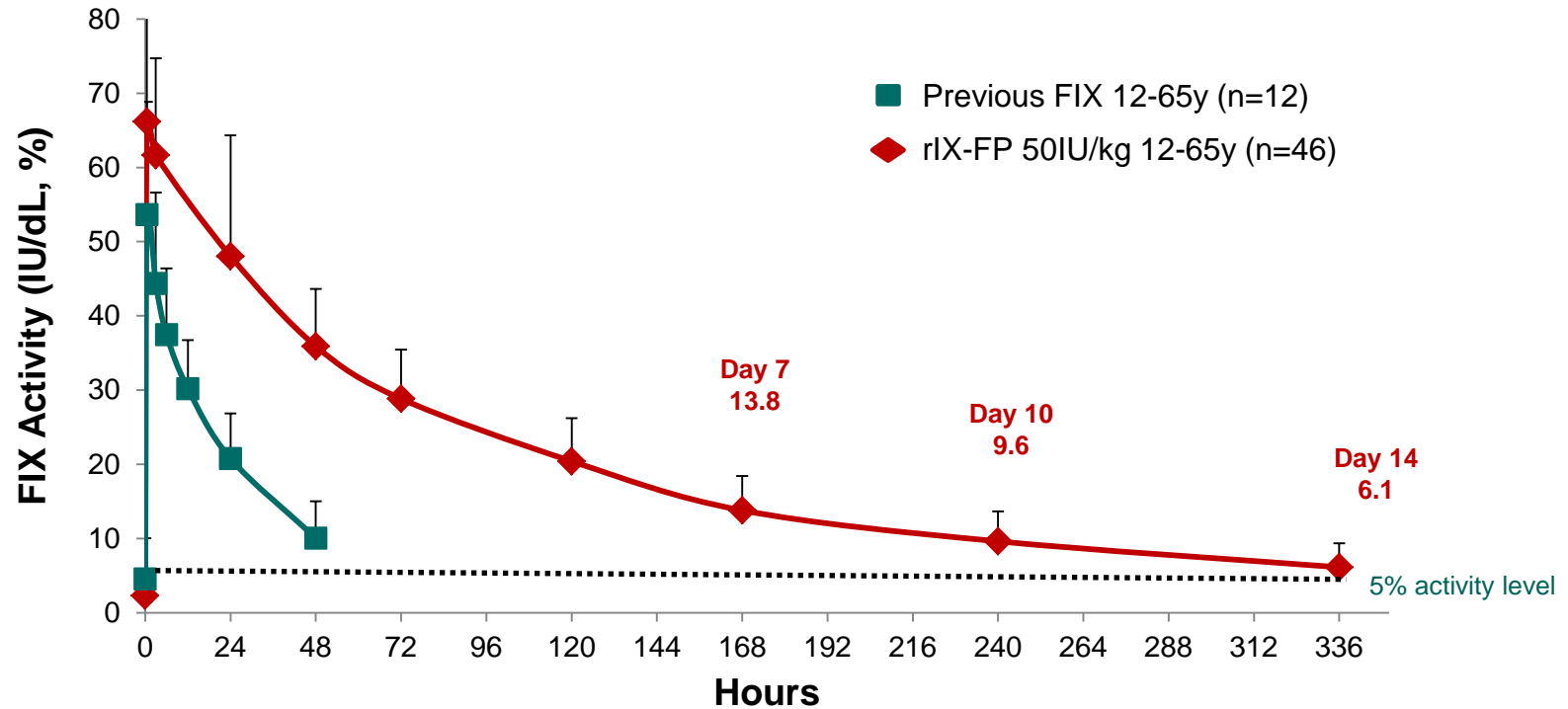


PK – pharmacokinetics; PUP – previously untreated patient



★ PK assessments were repeated in a subset of patients at Week 26; patients who met the switching criteria began a longer treatment interval
EOS – end of study; PK – pharmacokinetics

IDELVION™ shows sustained activity above 5% activity out to 14 days



- Shifts patient from severe $<1\%$ to mild $\geq 5\%$ FIX activity

*WFH Guidelines for the Management of Hemophilia. 2nd Edition. Hemophilia; Epub 6 July 2012


rIX-FP prophylaxis reduced spontaneous and overall bleeding rate

Adult On-Demand vs. Prophylaxis	Within-subject comparison (n=19) rIX-FP		AsBR reduction
	On-demand period ~6 months	Prophylaxis period ~12 months	
AsBR, median (IQR)	15.43 (7.98–17.96)	0.0 (0.00–0.96)	100% (p<0.0001)
Target joint(s), n (%)	10 (53)	0	
Estimated total ABR (95% CI)*	18.22 (15.38-21.58)	1.81 (0.97–3.37)	

*Assuming Poisson distribution

ABR – annualised bleeding rate; AsBR – annualised spontaneous bleeding rate; CI – confidence interval; IQR – interquartile range

rIX-FP Effective in 7 and 14 days regimens in Adults

	Within-subject comparison	
	7-day n=21	14-day n=21
AsBR, median (IQR)	0.0 (0.0, 0.0) 	0.0 (0.0, 1.0)
Median dose (IU/kg)	40 IU/kg	75 IU/kg

AsBR – annualised spontaneous bleeding rate; IQR – interquartile range

Paediatric Reduction of ABR among previously on-demand patients

Subject	Age	AsBR		Total ABR		Weekly rIX-FP dose (IU/kg)
		Prior to study	In study	Prior to study	In study	
1	8y	31	3.5	39	5.9	65 IU/kg
2	7y	34	2.4	42	4.7	65 IU/kg
3	4y	15	0	19	1.2	50 IU/kg

ABR – annualised bleeding rate; AsBR – annualised spontaneous bleeding rate

Low Bleeding Rates During Weekly Prophylaxis Treatment in Children

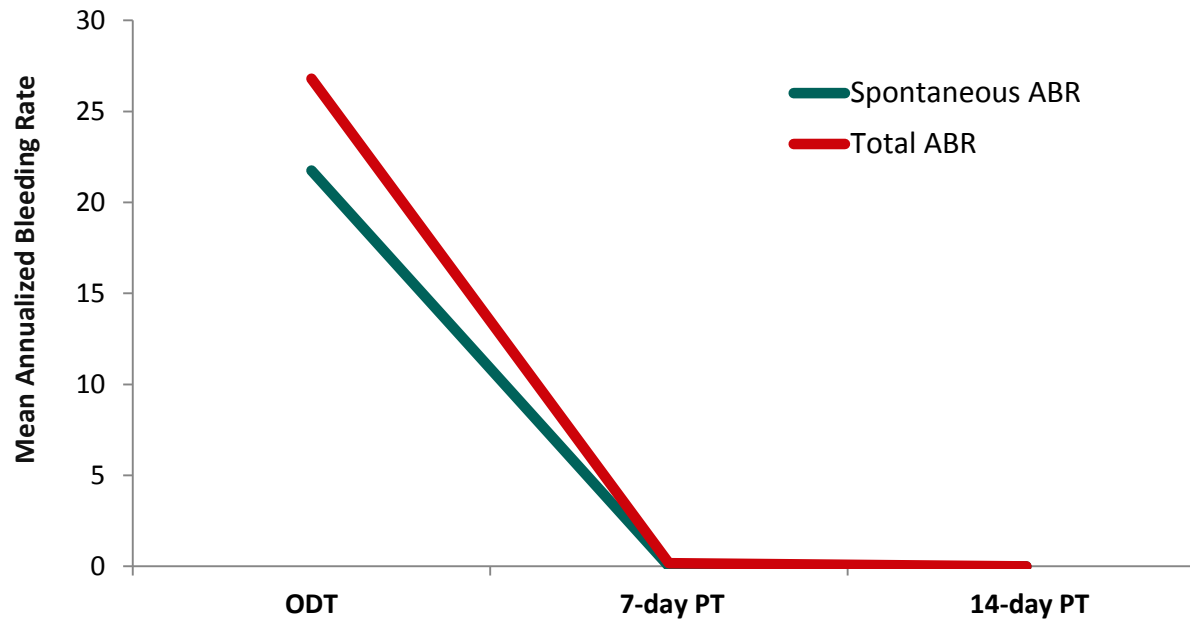


ABR		Age <6 years (n=12)	Age 6-11 years (n=15)
Spontaneous	Median	0.00	0.78
	IQR	0.00, 0.10	0.00, 1.99
Total Joint	Median	0.5	1.13
	IQR	0.00, 1.45	0.00, 2.36
Total	Median	2.6¹	3.4¹
	IQR	2.00, 6.48	0.76, 5.91
Prophylaxis IU/kg	Median	48.7	42.6
	IQR	44.8, 56.2	40.4, 51

References: 1. Data include 3 subjects previously receiving only on-demand treatment; 8 treated nasal bleeds

ABR – annualised bleeding rate; IQR – interquartile range

Patients respond to long-term prophylaxis therapy (4.2 years) in PROLONG-9FP program

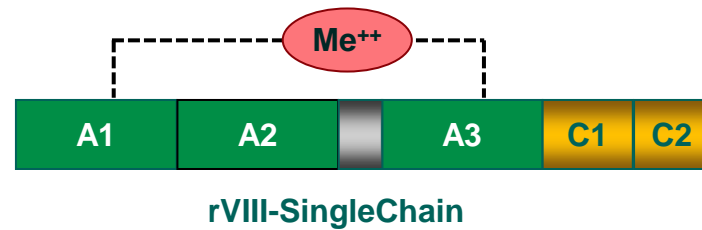
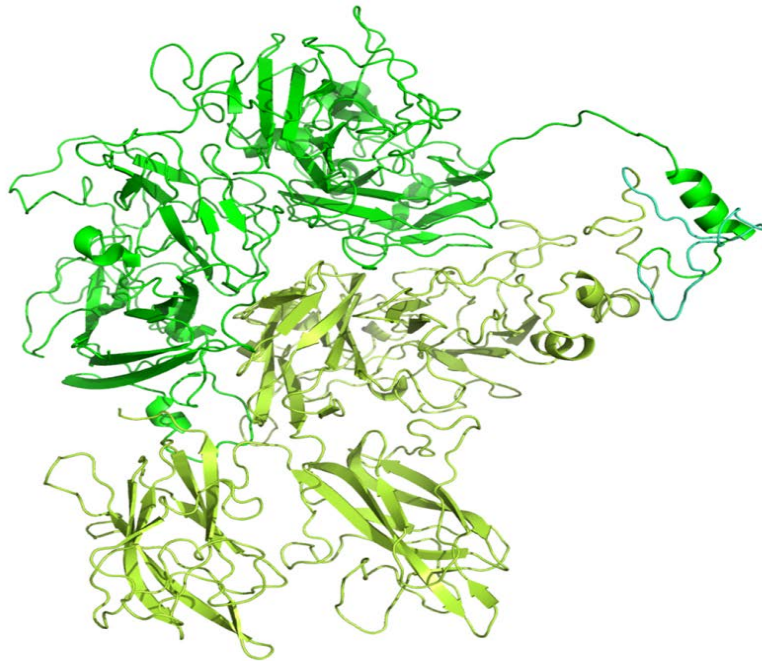


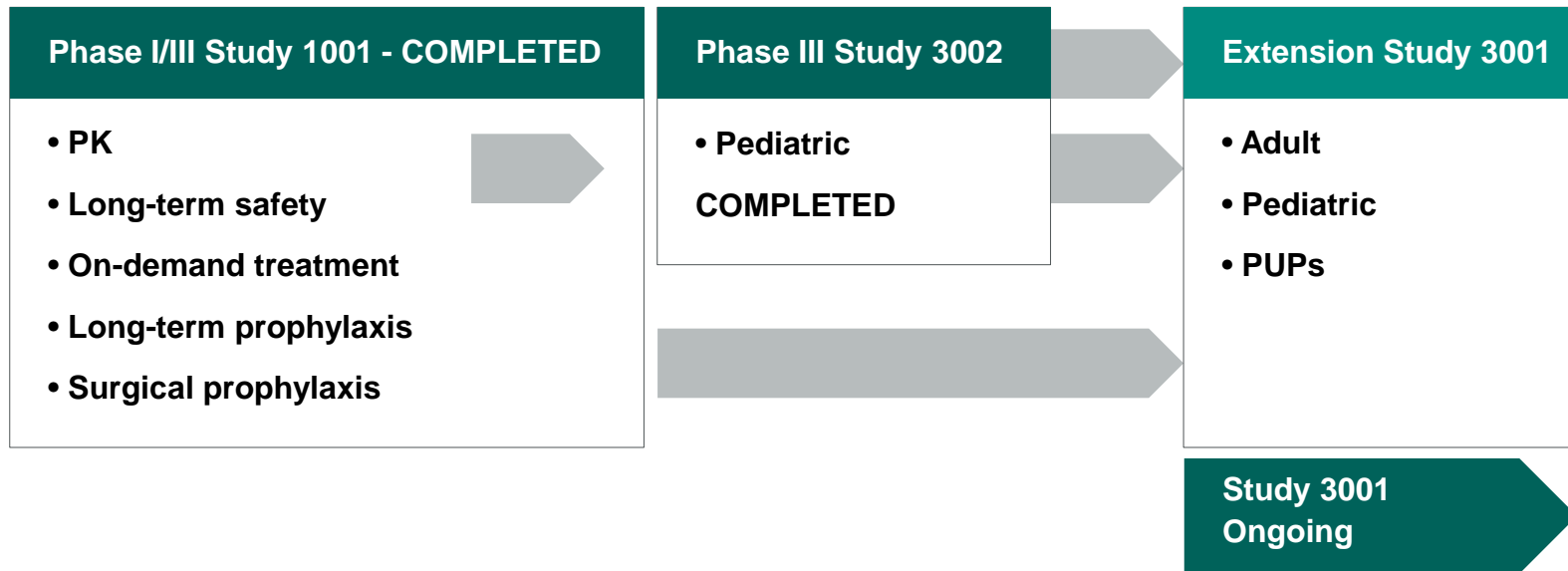
Reduction in ABR and AsBR in patients moving from on-demand to long term prophylaxis

15 males (ages 15-46 years) with hemophilia B (FIX \leq 2%) with a mean of 175 Exposure Days (EDs) (range 121-232) to rIX-FP over 4.2 years on rIX-FP

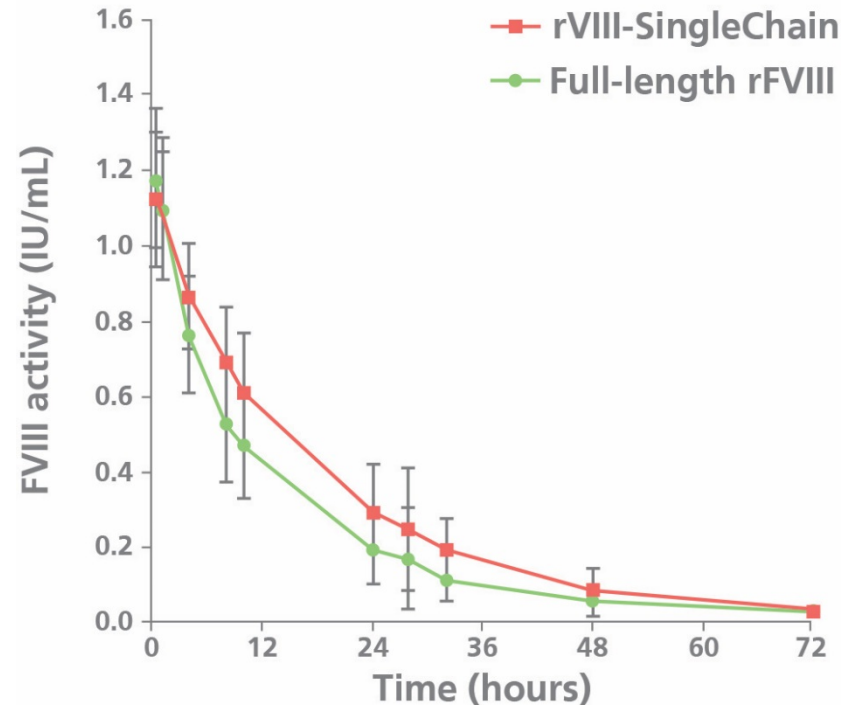
- Extension study ongoing EMA post marketing commitment
 - Previously untreated patients being enrolled
- Adult and pediatric indications under review by EMA and FDA
- FDA and Canadian approval expected Q1 2016
- EMA approval expected Q2 2016







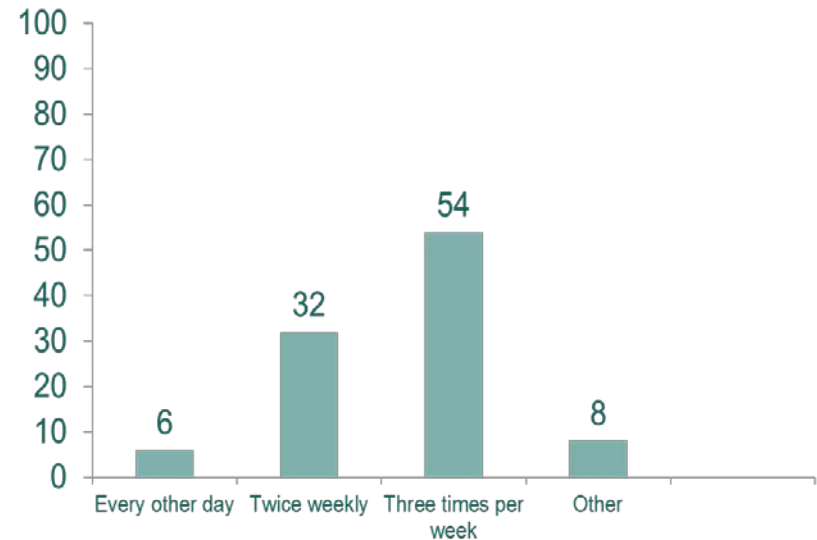
- Improved PK:
 - Lower clearance, greater AUC and longer half-life compared with otcocog alfa
- Well tolerated locally and systemically
- Excellent efficacy controlling bleeds and for surgical procedures



rVIII-SingleChain effective in 2x and 3x weekly Prophylaxis Regimen

- On demand arm (n=27)
 - median ABR = 19.64
- Prophylaxis arm (n=146)
 - median ABR = 1.14
 - median AsBR = 0.00
- Comparable ABR in the 2x and 3x week regimens

Routine Prophylaxis: Percentage of subjects in each assignment (%)



	Individualized (mean 3.5 days)		3x Weekly		2x Weekly		Weekly	
	ABR	AsBR	ABR	AsBr	ABR	AsBr	ABR	AsBr
rVIIIISC			1.14	0	1.14 (20-50IU/kg)	0		
Efmorotocog alfa ¹ (rVIII Fc fusion)	1.6 (25-65IU/kg)						3.6 (65IU/kg)	
BAX855 ² (rVIII pegylated)					1.9 (40-50IU/kg)	0		
Octocog alfa ³ (rVIII 3 rd generation)			4					
Turtucog alfa ⁴ (rVIII 3 rd generation)			3.7					

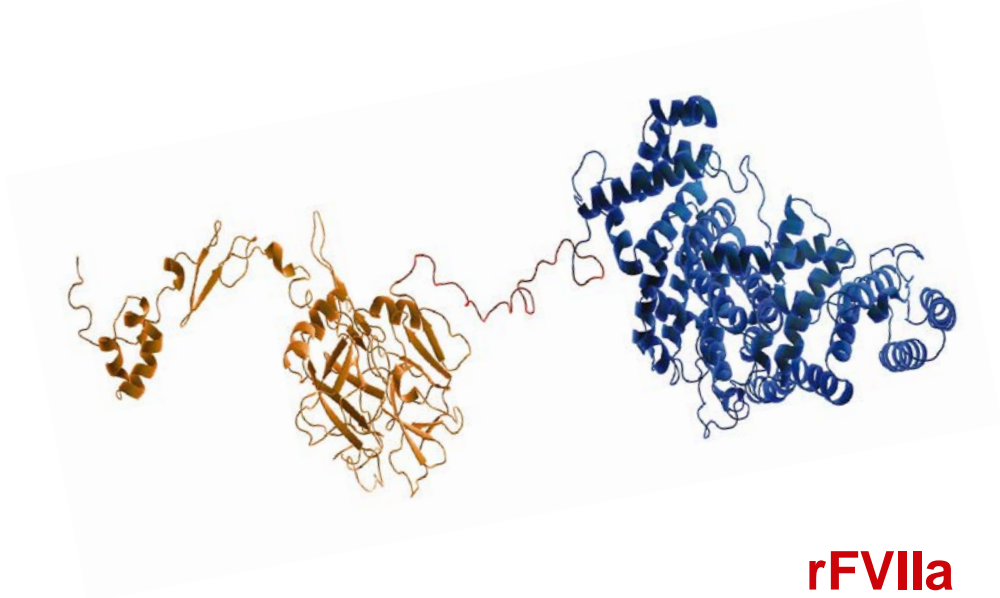
*Not direct head to head clinical comparison

References: 1. Mahlangu, J et al. *Blood* 2014;123(3):317-25. 2. Adynovate full prescribing information Baxalta Nov 2015. 3. Kavakli K et al. *J Thromb Haemost* 2015;13:360-9. 4. Lentz SR et al. *Haemophilia* 2013;19(5):691-7

ABR – annualised bleeding rate; AsBR – annualised spontaneous bleeding rate

- Extension study ongoing fulfilling EMA post marketing commitment
 - Previously untreated patients being enrolled
- Accepted by FDA June 2015, approval expected mid 2016
- Filed to EMA December 2015





rFVIIa

Linker

rAlbumin

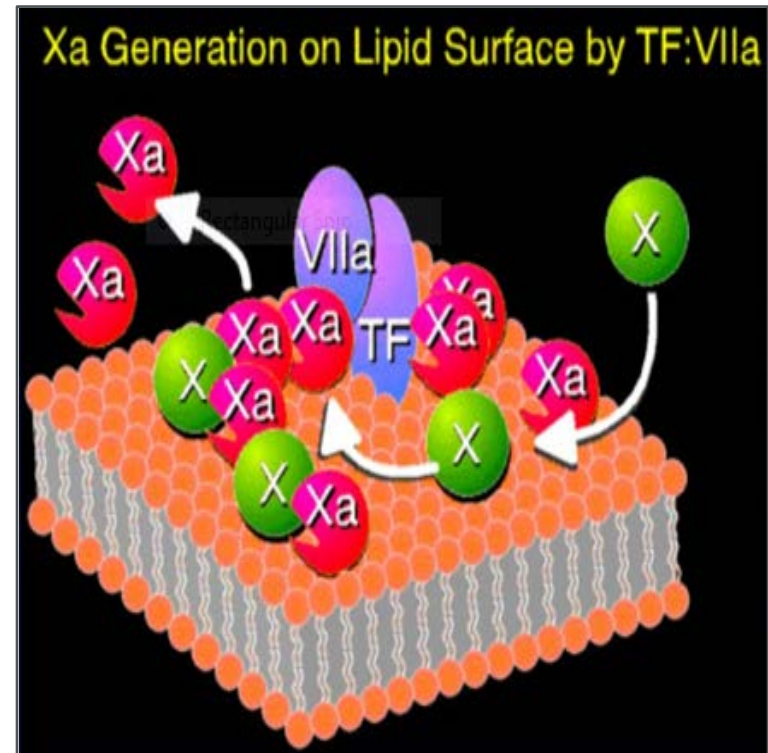


PROLONG **7** FP

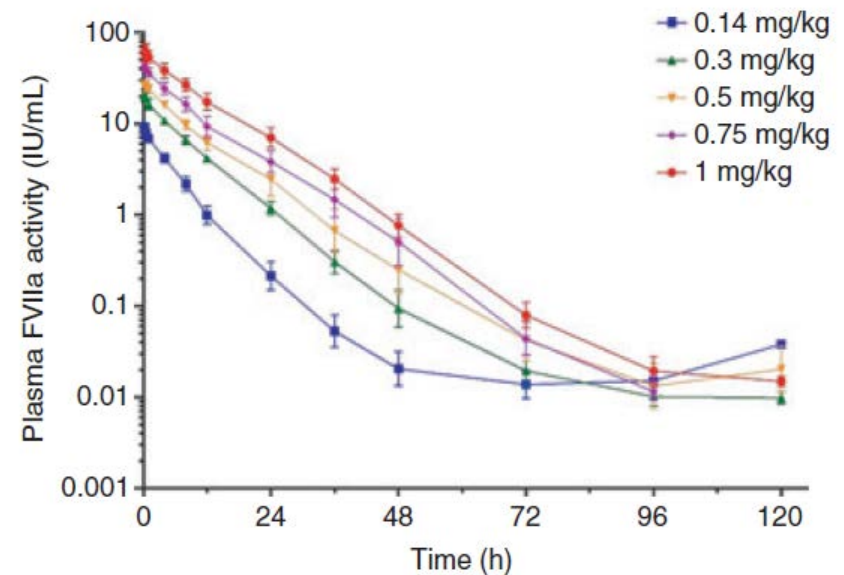
- Occurs when patient develops inhibitory antibodies to the coagulation factor (FVIII or FIX)
- Genetic predisposition / mutations
- Occurs early, highest risk in previously untreated patients
 - 34% inhibitor incidence, develop within 20 exposures

References: Peyvandi et al. <https://ash.confex.com/ash/2015/webprogram/Paper82866.html>

- rVIIa-FP can lead to the formation of a stable hemostatic plug to control bleeding
 - works locally by binding to tissue factor exposed at the site of vascular injury
 - Also binds to factor X on activated platelets

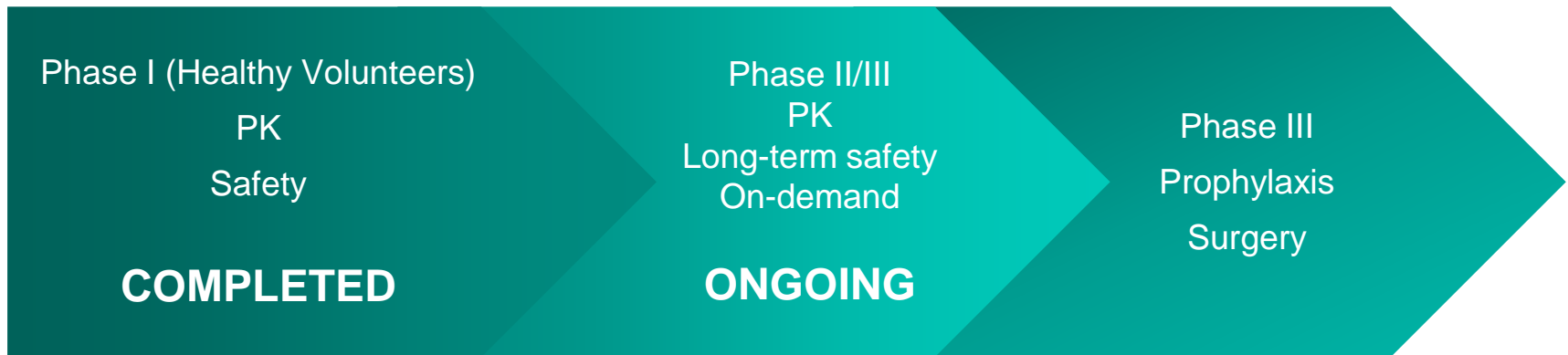


- CSL689 half-life = 8.5 hrs¹
 - Potential to dose 2-3 x weekly
 - Possibility of on demand and manageable prophylaxis regimen
- rFVIIa (Novoseven) half life ~2-3hrs
 - Indicated for treatment of bleeding episodes- requires dosing every 2-3 hours²



References: 1. Golor G et al. *J Thromb Haemosras* 2013 Nov;11(1):1977-85. 2. NovoSeven Full Prescribing Information USA

Congenital Haemophilia with Inhibitors



- Pivotal Phase II/III trial in haemophilia A & B patients with inhibitors
 - Dose finding, safety & efficacy on-demand therapy
 - Commenced first half 2015
 - Bleeding episode successfully treated

PROLONG **7** FP

Congenital Factor VII Deficiency



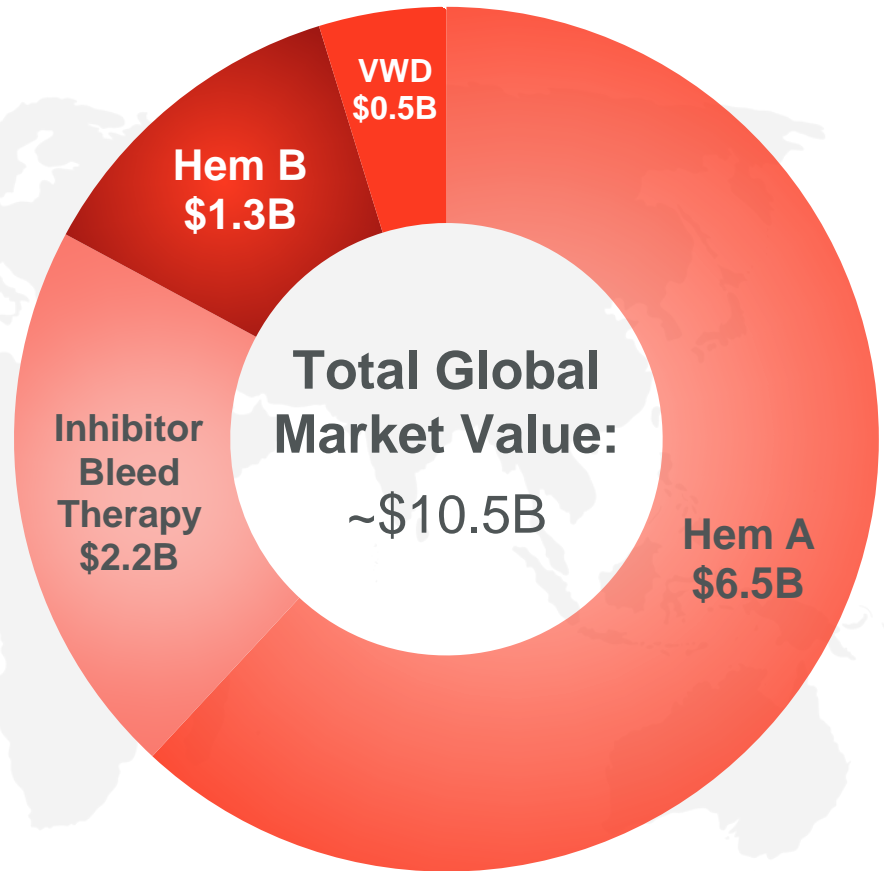
- Phase I PK/PD study in congenital FVII deficiency patients
 - PK and safety in patients
 - Commenced December 2014

PROLONG **7** FP

A dark teal world map is centered in the background of the slide. The map shows the outlines of continents and oceans in a lighter shade of teal.

Commercial Opportunities and Activities

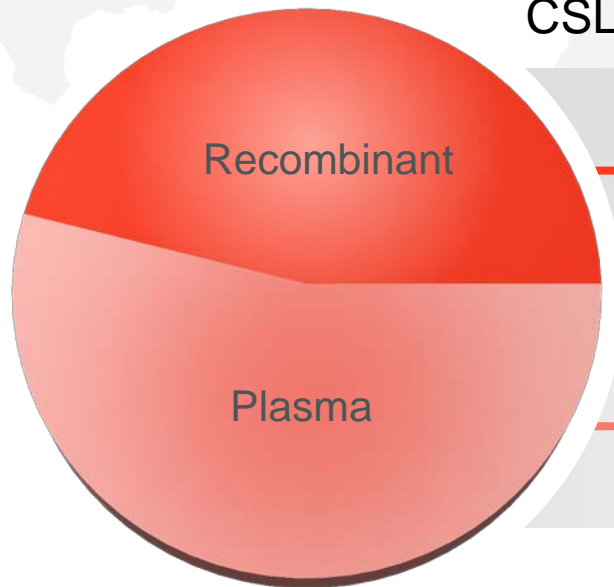
- Trend toward recombinants in developed markets
- New longer-acting product launches
- 75% of patients with bleeding disorders are under/un-treated



Sources: Company annual reports/financial schedules, based on 2014 data, MRB global Coagulation Factors Concentrate Market 2014 & 2015, Hemophilia World, December 2013, Vol 20. No 3, CSL Actuals FY15

Grow range of differentiated pd and recombinant therapies

- Broad portfolio presence
- Growth in developed and emerging markets
- Continued balance between recombinant and plasma derived portfolio



CSL FY15 Sales \$1,026M

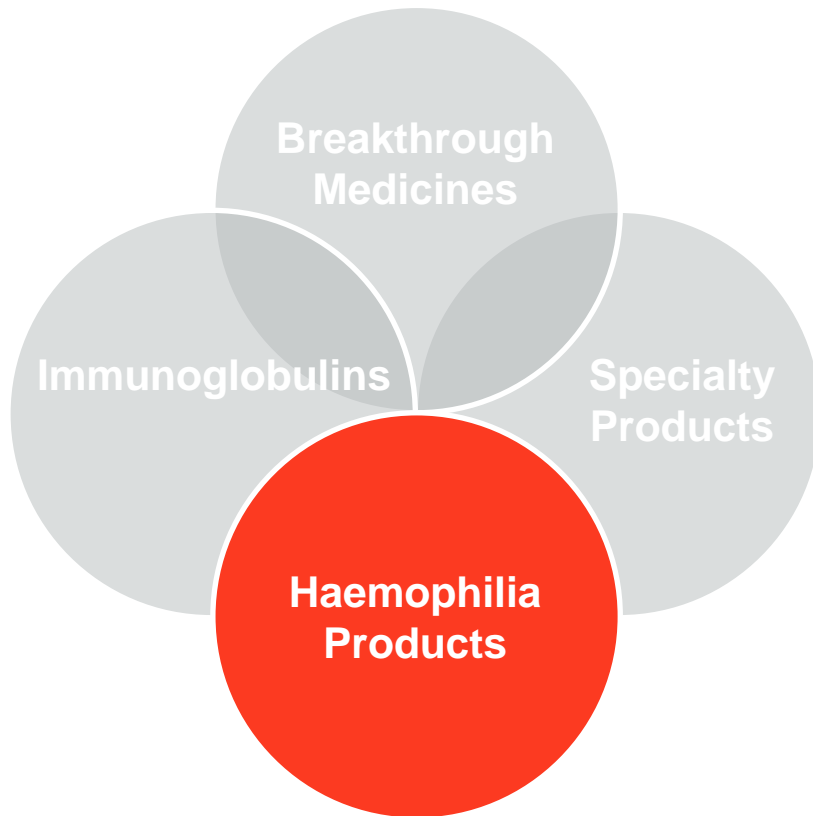
Key Brands:

Helixate^{FS}

HUMATE-P[®]

Beriate[®] P

Mononine[®]



- Successfully launch the new recombinant products globally
- Position Idelvion™ (rIX-FP) as the new SOC for haemophilia B
- Afstyla™ (rVIII-SingleChain) product profile highly competitive

- Unique recombinant albumin fusion protein molecule
- Pharmacokinetic profile includes extended half-life and greater area under the curve (AUC) resulting in increased activity levels

Attributes of Albumin

- Naturally occurring protein
- Binds endogenous components
- Not associated with immune response
- Long serum half-life

Potential Differentiated Profile

- Dosing interval up to 14 days
- Trough level $\geq 5\%$
- Zero median AsBR
- Well tolerated
- No inhibitors in pivotal program

- Single chain design with most of B-domain deleted
- Covalent link between heavy and light chains

Single Chain Design

- Strong affinity to vWF
- Greater molecular integrity and stability
- Improved pharmacokinetic profile

Potential Differentiated Profile

- Twice-weekly dosing
- Effective bleeding control
- Well tolerated
- No inhibitors in pivotal program

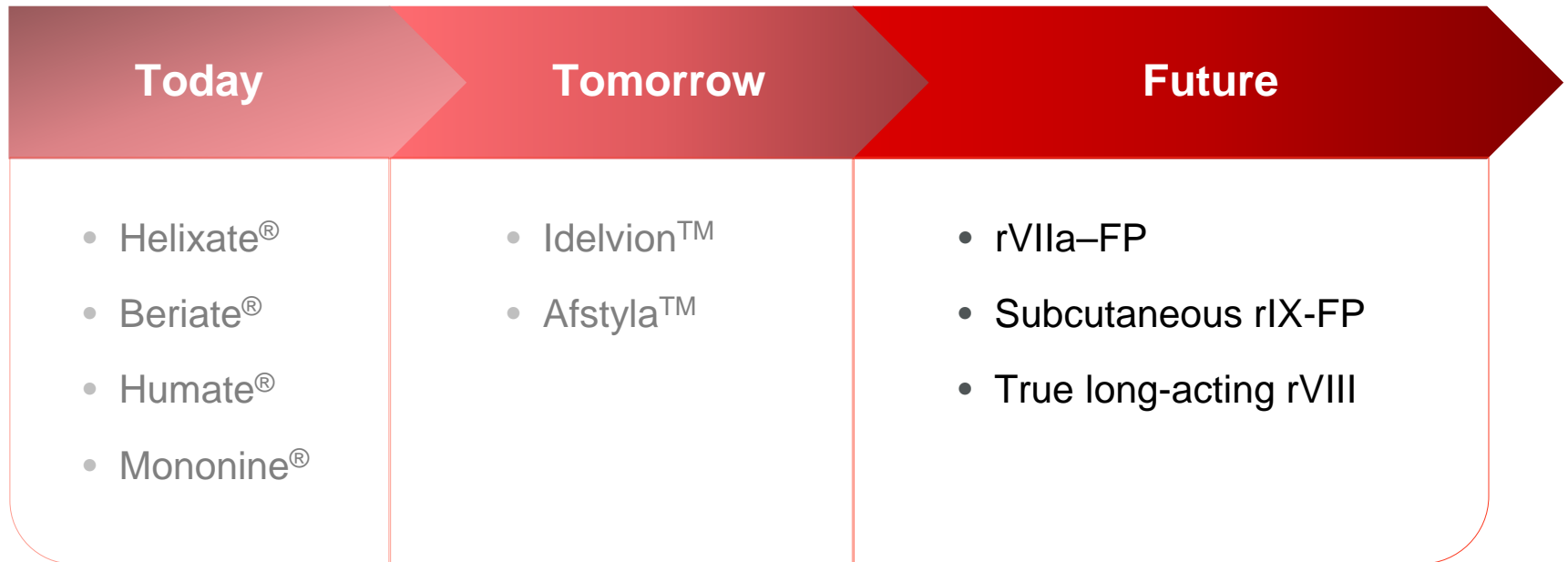
- Prophylaxis and treatment of adult, adolescent and pediatric patients with congenital haemophilia A or B with inhibitors and congenital FVIIa deficiency

Attributes of rVIIa-FP

- Unique recombinant albumin fusion protein molecule
- Significantly longer half-life
- Extended dosing interval ~3 x per week

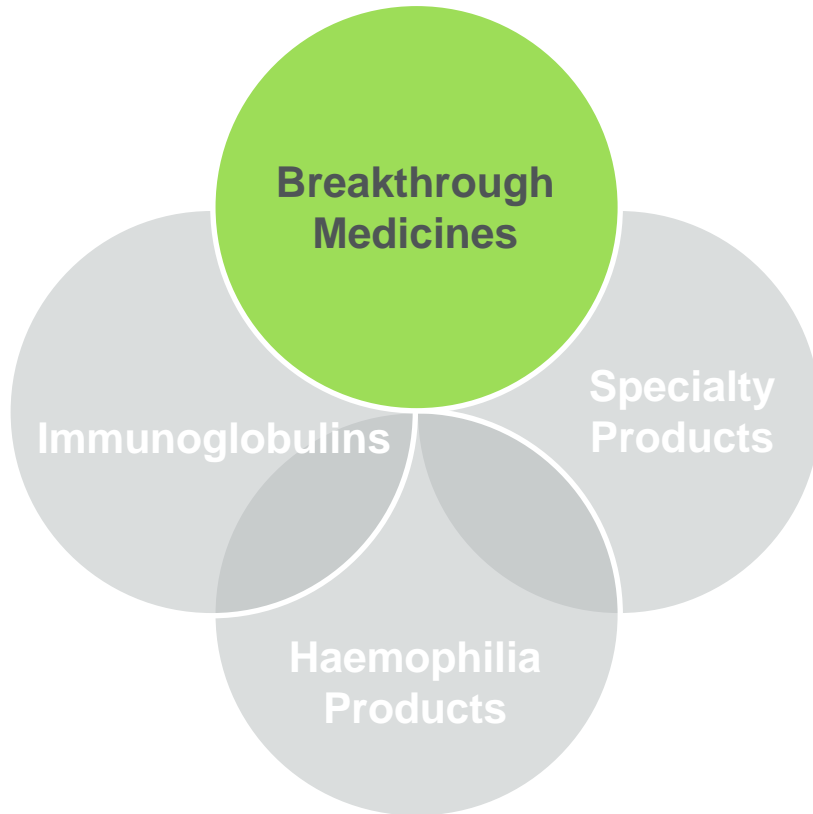
Potential Differentiated Profile

- Fast, effective on-demand treatment in majority of patients
- Therapeutic effect allows for more convenient prophylaxis
- Major improvement to patient care



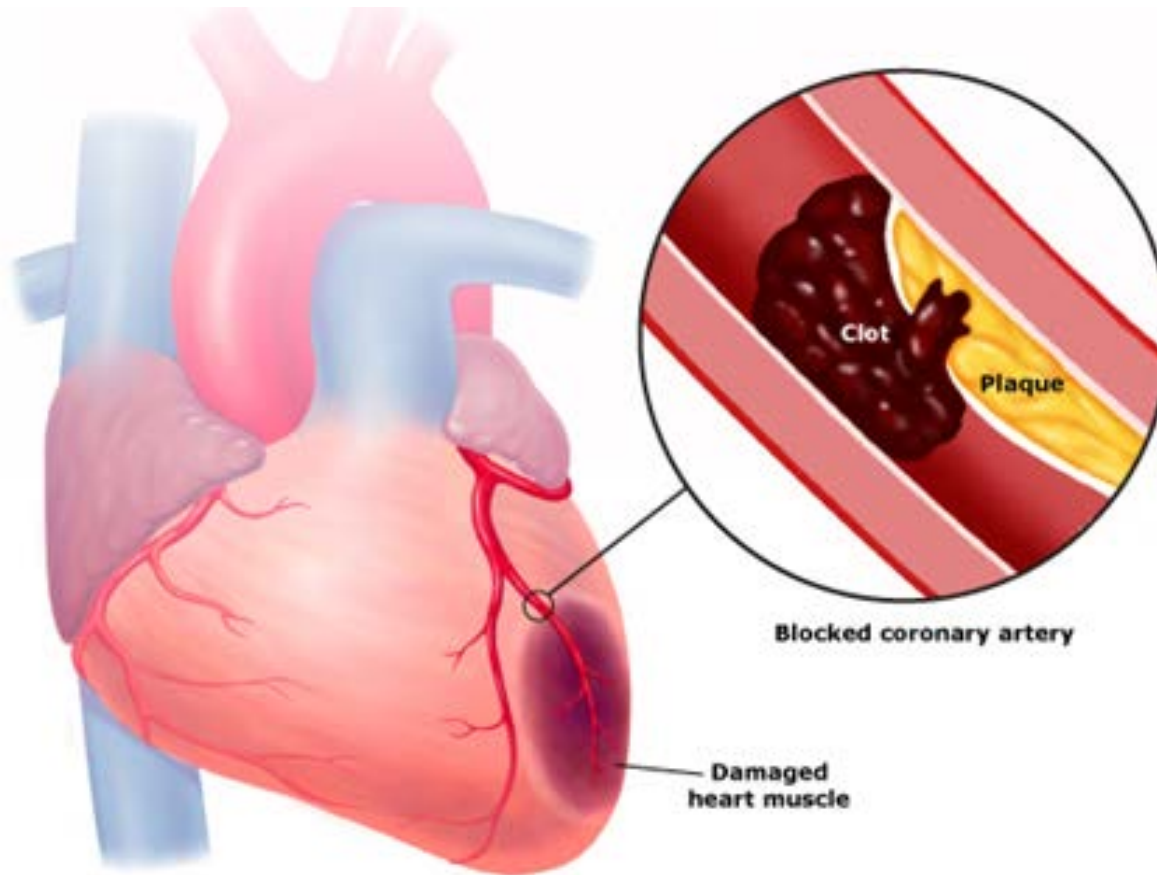
A dark teal world map is centered in the background of the slide. The continents are visible in a lighter shade of teal against the darker background.

Breakthrough Medicines



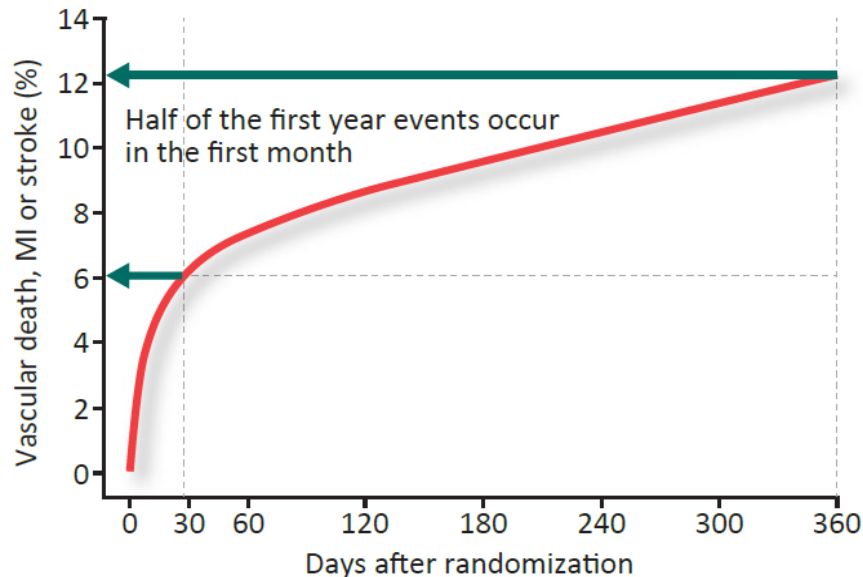
- Leveraging clinical and technical insight in developing novel protein-based therapies
 - Significant unmet need
 - Multiple indications
- Key Focus
 - CSL112 (Apo AI)
 - CSL324 (anti-G-CSFR mAb)
 - CSL346 (anti-VEGFB mAb)
 - CSL312 (anti-FXIIa mAb)

Acute Coronary Syndrome (ACS)



Reduction of Early Recurrent Cardiovascular Events – A High Unmet Medical Need in ACS

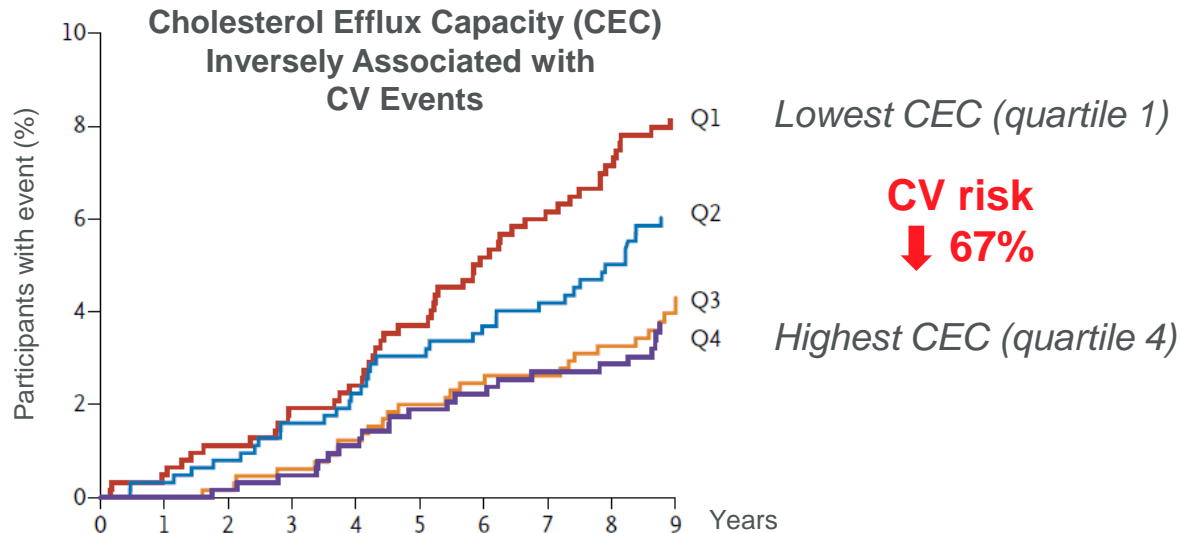
- Recurrent CV events occur early, are associated with high mortality and are inadequately addressed by available therapies



References: Figure adapted from PLATO Trial, Kohli P et al. *Circulation* 2013;127:673-680

Cardioprotective Role of High Density Lipoprotein

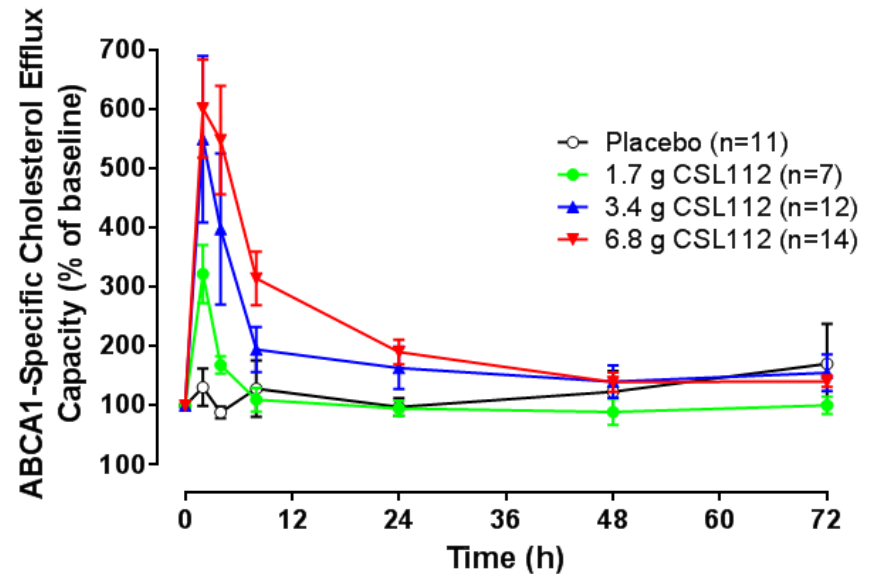
- HDL exerts cardio protective effect through cholesterol efflux
 - movement of excess cholesterol from arterial-wall macrophages
 - leads to reduction in plaque size and risk of rupture



References: Dallas Heart Study, New England Journal of Medicines, Nov 2014

CSL112 raises ABCA1 Cholesterol Efflux Capacity

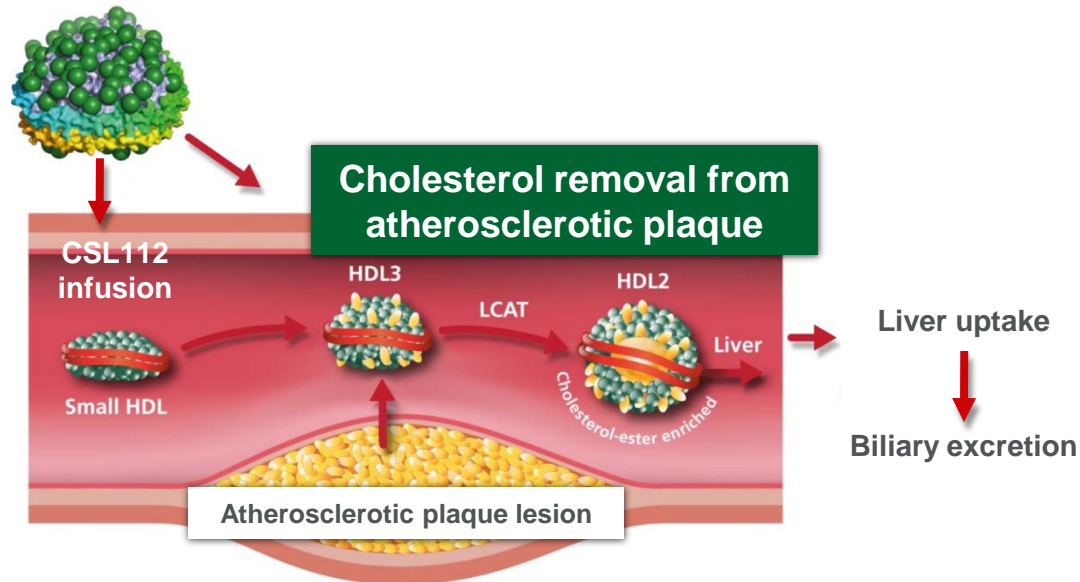
- Impaired cholesterol efflux, inflammation and plaque rupture, all exist in the setting of ACS
 - Contribute to the high incidence of early recurrent cardiovascular events
- CSL112 results in a profound, immediate and sustained rise in ABCA1 specific cholesterol efflux capacity



Phase 2a Study in patients with stable atherosclerotic disease

References: Gille et al. (2014) presented at AHA.

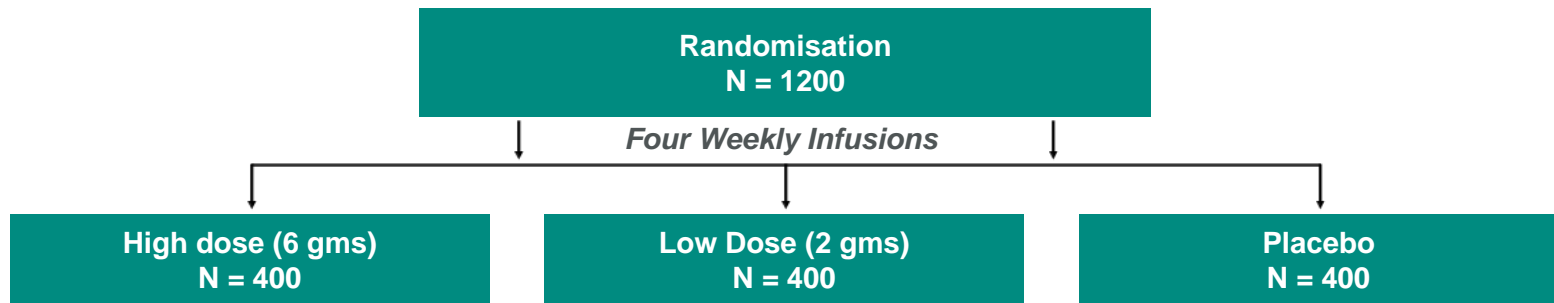
CSL112 – A Novel Therapy for Acute Coronary Syndrome



CSL112 has the potential to rapidly reduce the high rate of early recurrent CV events, addressing a significant unmet medical need in ACS.

References: Modified from Kingwell & Chapman. *Circulation* 2013;128:1112-1121

Proof of mechanism and demonstration of safety



- 1,258 patient post myocardial infarction trial fully recruited
- Data Monitoring Committee has confirmed safety to date
- Biomarker data to confirm mechanism of action – 2H 2016

Phase 2b Dose-ranging / POC

- ACS population
- Safety, efflux biomarker, pop PK
- Normal and mild RI
- Enrollment completed LPLV Q2 2016

Moderate RI safety (Ph2)

- Higher risk ACS population
- Safety, pop PK
- Start up stage

Phase 3 Pivotal Trial

- ACS treatment target population
- CV event benefit (MACE) and safety risk
- 1^o endpoint: MACE
- Design and planning stage

- Planning for Phase 3 commenced
 - Strategy in place for inclusion of high risk patients in Phase 3
 - Anticipating commencement in 2H 2017

A dark teal world map is centered in the background of the slide. The text "Influenza Vaccines R&D" is overlaid in white, bold font in the center of the map.

Influenza Vaccines R&D



- Differentiated, adjuvanted influenza vaccine for 65yr+ and young children
- Elderly indication approved in >30 countries (US approval Nov 2015)
- Paediatric indication in Canada



- World's first cell-culture flu vaccine
- Currently registered for 18yr+
- QIV 4yr+ anticipated in 2016



- Traditional egg-based vaccine
- Currently indicated for 5yr+
- QIV 18yr+ anticipated in 2016



- First and only intravenous influenza anti-viral
- Currently registered in the US for 18yr+
- Plans for global rollout¹ and paediatric indication

1. Seqirus rights exclude Japan, South Korea, Taiwan, Israel and US Government stockpile



TIV



Filed

- Expanding age indication to 4yr+

Cell culture QIV



Filed

- Filed for US approval
Anticipate launch in 2016

Adjuvanted QIV



Phase III

- Filing in 2016



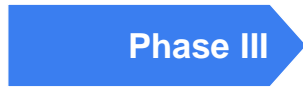
QIV



Filed

- Age ≥ 18 yrs
Anticipate soft launch in 2016

QIV



Phase III

- Age ≥ 5yrs, filing 2016



QIV



Phase III

- Age ≥ 6mo, filing 2017

A dark teal world map is centered in the background of the slide. The word "Summary" is written in white, bold, sans-serif font over the map.

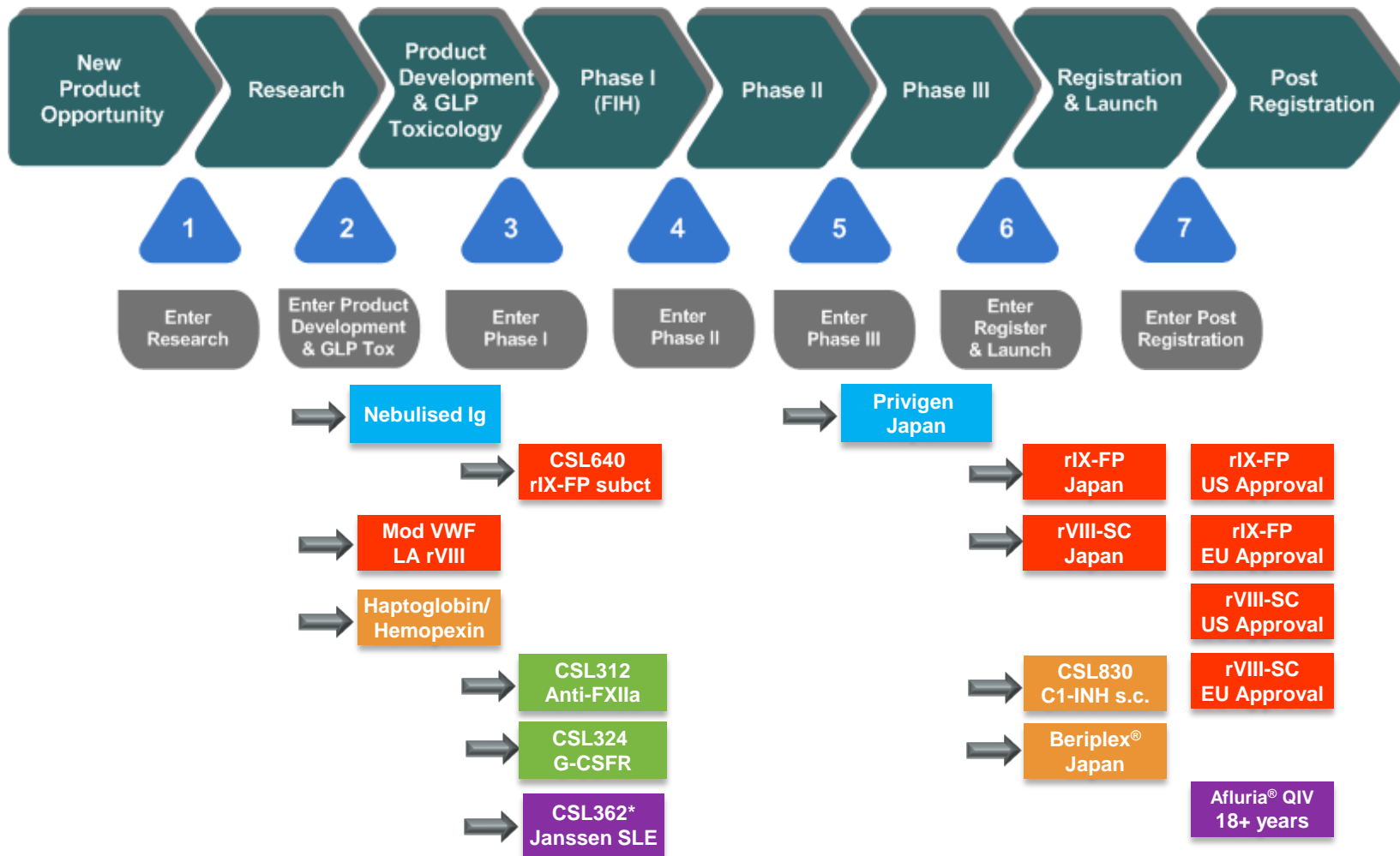
Summary

	Research	Pre-clinical	Phase I	Phase II	Phase III	Registration	Commercial/ Phase IV
Life Cycle Management#							Immunoglobulins Haemophilia Specialty Products Influenza Vaccine
Market Development		C1-inh New Indications Fibrinogen New Indications PCC New Indications			Hizentra® CIDP Privigen® Japan Beriplex® Japan CSL830 C1-INH subcut		Kcentra™ US Bleeding /Surgery Respreza® EU
New Product Development	Ig Formulations Rec Coagulation Factors Partnered Vaccine Programs* P. gingivalis/POD OH-CRC Discovery Projects	CSL650 rVWF-FP Partnered Vaccine Programs* CSL334 IL-13R* ASLAN CSL312 Anti-FXIIa CSL324 G-CSFR CSL346 VEGFB	CSL689 rVlla-FP Congen Def Partnered Vaccine Programs*	CSL689 rVlla-FP Inhibitors CSL362 IL-3R* AML Janssen CSL112 reconstituted HDL CAM3001 GM-CSFR –AZ*		CSL654 rIX-FP CSL627 rVIII-SC	
Core Capabilities:	Immunoglobulins	Haemophilia	Specialty Products	Breakthrough Medicines	Vaccines & IP		

*Partnered Projects

#LCM includes direct post marketing commitments as well as pathogen safety, capacity expansions, yield improvements, new packages and sizes for all registered products

Expected Progress in next 12 Months



Significant Target Launch Dates

2015	2016	2017	2018	2019	2020
Voncento™ V WD EU	CSL654 rIX-FP US CSL654 rIX-FP EU CSL627 rVIII-SC US	CSL654 rIX-FP Japan CSL627 rVIII -SC EU/Japan			CSL689 rVIIa-FP Inhibitors
Respreeza® EU		CSL830 C1-INH SubCut Beriplex® Japan			
Fluad US Elderly+	Cell Culture QIV Afluria/Fluvax QIV 18+		Hizentra® CIDP Privigen® Japan PID/SID Adjuvanted QIV		

Core Capabilities:

Immunoglobulins

Haemophilia

Specialty Products

Vaccines & IP

* Calendar Years

Immunoglobulins

- Hizentra® flexible dosing registration in US
- Hizentra® CIDP pivotal study recruitment completed

Specialty Products

- Respreeza® registration in Europe
- Berinert® s.c. pivotal Phase III recruitment completed

Haemophilia

- rIX-FP effective in 7-14 day dosing regimens & MAA submitted
- rVIII-SingleChain effective 2x weekly prophylaxis & MAA submitted
- rVIIa-FP inhibitor Phase I/II commenced

Breakthrough Medicines

- CSL112 (Apo A-1) Phase IIb study recruitment completed
- Anti-FXIIa mAb pre-clinical development completed

Licensing & Vaccines

- Fluvad registration in the elderly in the US
- CSL362 Phase II AML study commenced by Janssen

A dark teal world map is centered in the background of the slide. The text is overlaid on the map.

Q&A

R&D Briefing

Presentation Playback

A playback of the Research and Development presentations will be available for a period of two weeks following R&D Briefing. Investors wishing to listen to these presentations should contact CSL Investor Relations to arrange access.

Contact: maria.pikos@csl.com.au

Investor Relations:

Mark Dehring
Head of Investor Relations
CSL Limited
Phone: +613 9389 2818
Email: mark.dehring@csl.com.au

Media:

Sharon McHale
Head of Public Affairs
CSL Limited
Phone: +613 9389 1506
Mobile: +614 0997 8314
Email: sharon.mchale@csl.com.au