First Quarter Results to March 31, 2012

Shire plc
April 26, 2012

Angus Russell
Chief Executive Officer

Graham Hetherington
Chief Financial Officer

Sylvie Grégoire
President, Human Genetic Therapies

Kevin Rakin
President, Regenerative Medicine

Dr. Jeffrey Jonas
SVP R&D, Specialty Pharmaceuticals and Regenerative Medicine

Our purpose
We enable people with life-altering conditions to lead better lives.

THE "SAFE HARBOR" STATEMENT UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

Statements included herein that are not historical facts are forward-looking statements. Such forward-looking statements involve a number of risks and uncertainties and are subject to change at any time. In the event such risks or uncertainties materialize, the Company's results could be materially adversely affected. The risks and uncertainties include, but are not limited to, risks associated with: the inherent uncertainty of research, development, approval, reimbursement, manufacturing and commercialization of the Company's Specialty Pharmaceuticals, Human Genetic Therapies and Regenerative Medicine products, as well as the ability to secure new products for commercialization and/or development; government regulation of the Company's products; the Company's ability to manufacture its products in sufficient quantities to meet demand; the impact of competitive therapies on the Company's products; the Company's ability to register, maintain and enforce patents and other intellectual property rights relating to its products; the Company's ability to obtain and maintain government and other third-party reimbursement for its products; and other risks and uncertainties detailed from time to time in the Company's filings with the Securities and Exchange Commission.

Agenda

- **Q1 2012 Highlights** | Angus Russell
- **HGT update** | Sylvie Grégoire
- **Financial Review** | Graham Hetherington
- **SP and RM Pipeline Update** | Jeff Jonas
- **Concluding Remarks** | Angus Russell
- **Q & A** | All

Q1 2012 Highlights

Strong first quarter performance
Reiterating our expectation of good full year earnings growth

Angus Russell
Chief Executive Officer

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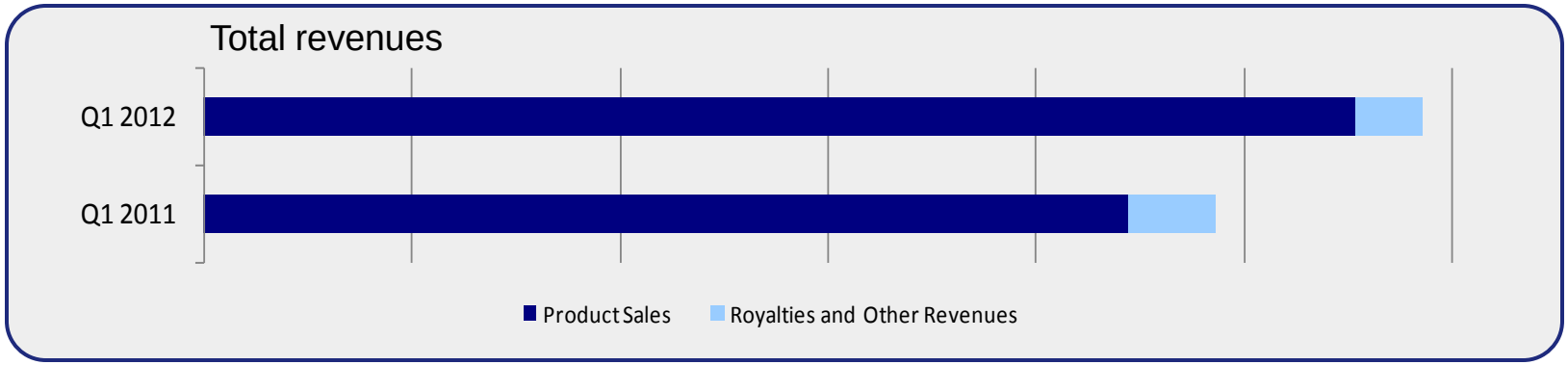
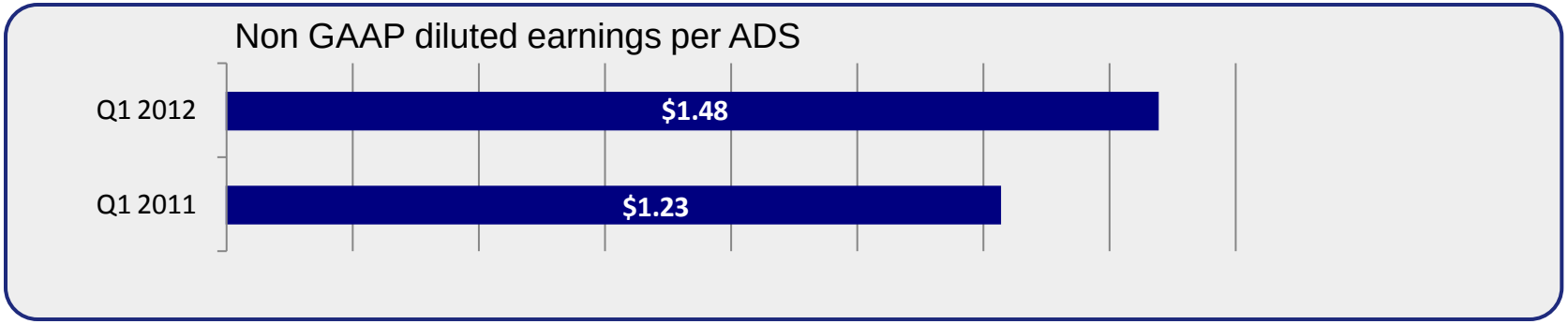
Balanced product portfolio continues to deliver growth



Total revenues ↑ **21%** to $1,172 million

Product sales ↑ **24%** to $1,107 million

Revenue growth drives 20% increase in Non GAAP earnings



Q1 2012 Non GAAP operating income ↑ **18%** to $362 million

Q1 2012 Non GAAP diluted earnings per ADS ↑ **20%** to $1.48

Specialty Pharma and Regenerative Medicine highlights

Vyvanse® (lisdexamfetamine dimesylate) capsules

- ✓ US Rx's grew 23% versus Q1 '11. Achieved 16.8% market share – a gain of 1.7% versus last year
- ✓ Announced commencement of head-to-head trial versus Concerta
- ✓ Phase 3 for MDD enrolling as planned; New Phase 2 data for BED

intuniv™ (guanfacine) Extended Release Tablets 1mg, 2mg, 3mg, 4mg

- ✓ 54% increase in Q1 Rx's versus prior year. Increase in both Rx's and market share driven by new consumer marketing and adjunctive therapy with stimulant launch
- ✓ Enrolling EU pivotal phase 3 programs

FerroKin BioSciences

Hematology

XAGRID®

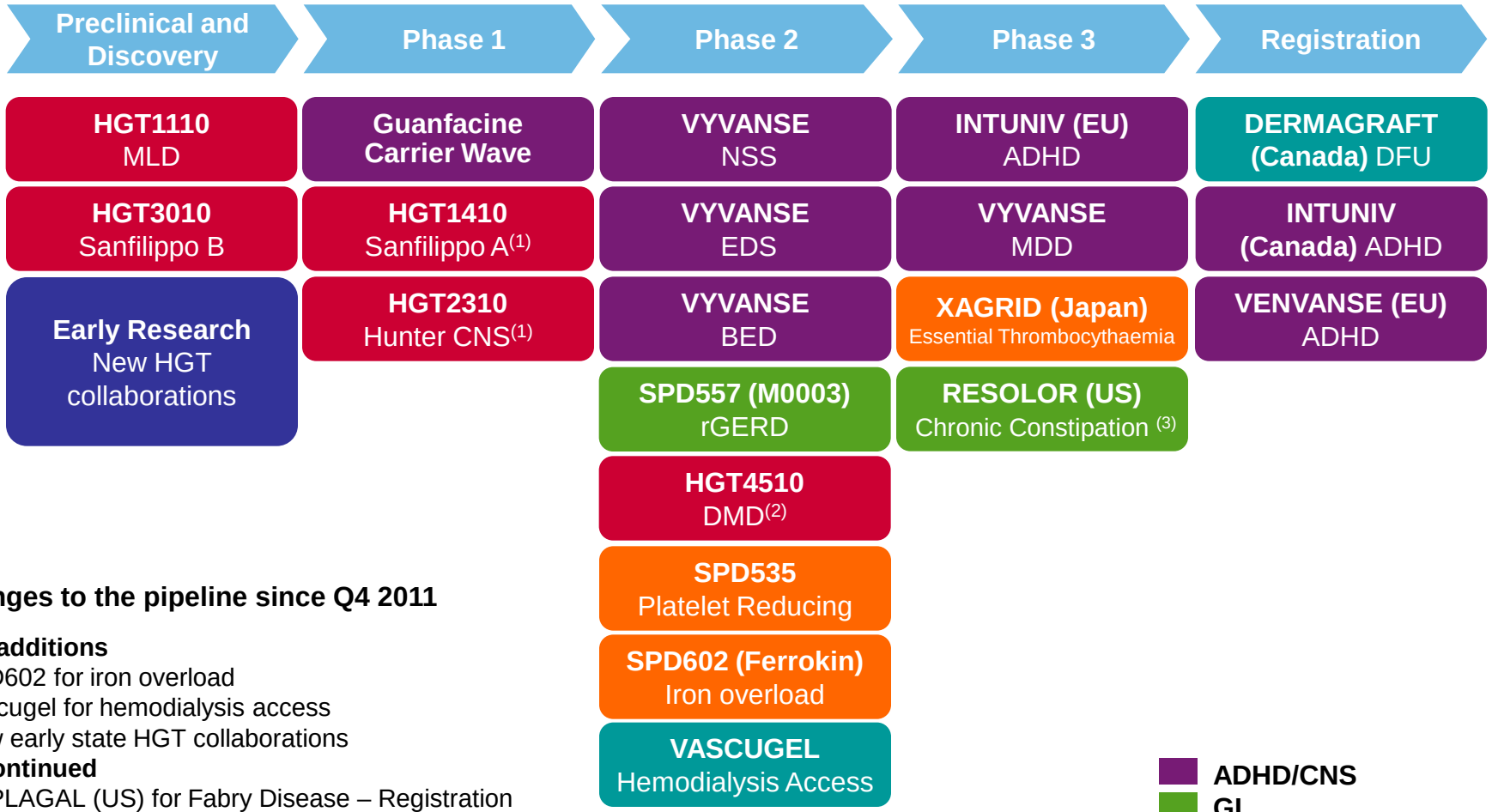
- ✓ Acquisition of FerroKin Biosciences; FBS0701 (SPD602) in Phase 2
- ✓ Sangamo collaboration & license agreement – focus on development of therapeutics for hemophilia and other monogenic diseases based on Sangamo's ZFP technology
- ✓ Adds to existing Hematology franchise of Xagrid and SPD535

Vascugel®

- ✓ Acquired from Pervasis
- ✓ Addresses significant unmet medical need for improving hemodialysis access for patients with end-stage renal disease (ESRD)

* IMS NPA (National Prescription Audit) March 2012

Expanding the pipeline



Changes to the pipeline since Q4 2011

New additions
- SPD602 for iron overload
- Vascugel for hemodialysis access
- New early state HGT collaborations

Discontinued
- REPLAGAL (US) for Fabry Disease – Registration
- LIALDA for Diverticular Disease – Phase 3

ADHD/CNS
GI
Hematology
HGT
Regenerative Medicine

Note
(1) HGT1410 and HGT2310 are currently in Phase 1/2 clinical trials
(2) Currently on clinical hold
(3) Phase 3 ready

HGT update

Sylvie Grégoire
President, Human Genetic Therapies

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HGT update

firazyr® icatibant	✓ Patient and physician uptake has been strong in first 6 months post US launch ✓ Momentum driven by reorder rates from existing patients and growth in new patients ✓ High adoption reflects benefits that self-administered Firazyr brings to major unmet needs of HAE patients
REPLAGAL® agalsidase alfa	✓ Continued growth in patients on therapy ✓ One year data presented at ACMG* from switch and treatment naïve patients provide further evidence of effectiveness and tolerability
VPRIV velaglucerase alfa for injection	✓ Continued growth in patients on therapy ✓ EMA approval for VPRIV manufacturing received ✓ FDA complete response letter received ✓ Existing approved capacity can meet anticipated global demand
Pipeline	✓ New early stage collaborations broaden significantly HGT's technology platforms focused on developing innovative therapies for rare diseases

* American College of Medical Genetics and Genomics (ACMG) meeting held on March 27-31, 2012 in Charlotte , North Carolina, USA

Financial Review

Graham Hetherington
Chief Financial Officer

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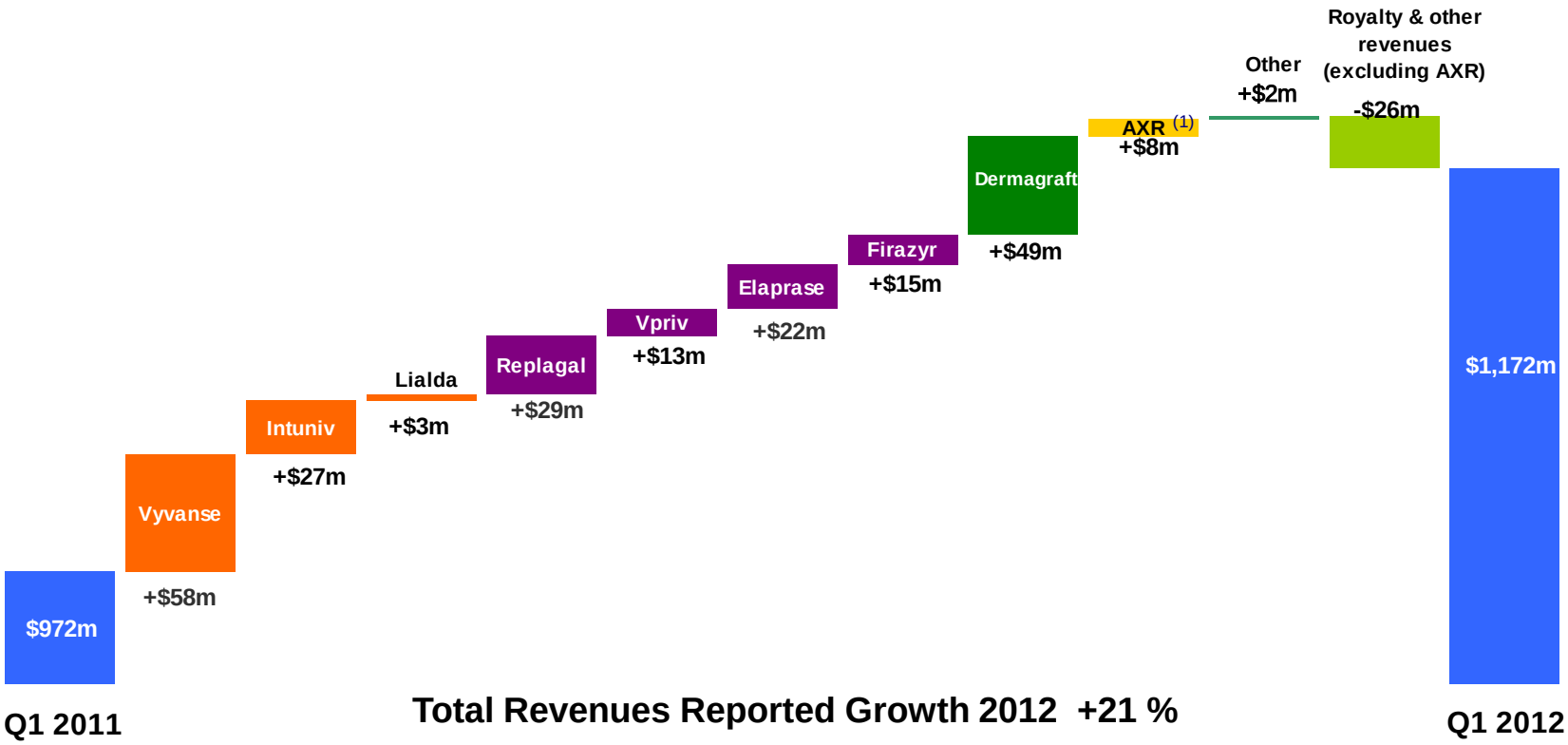
Q1 2012 Performance Summary

	Q1 2012 $m	Q1 2011 $m	Reported Growth	Like for Like Growth (1)
Product sales	1,107	889	+24%	+26%
Royalties and other revenues	65	83	-22%	-21%
Total revenues	**1,172**	**972**	**+21%**	**+22%**
EBITDA (2)	**389**	**331**	**+18%**	**+20%**
EBITDA % of product sales (2)(3)	**29%**	**28%**	**+142bp**	
EPS - ADS (2)	**$1.48**	**$1.23**	**+20%**	
Cash generation (2)	**310**	**208**	**+49%**	

(1) 'Like for Like Growth' excludes movements in exchange rates by applying Q1 2011 exchange rates to Q1 2012 results.
(2) These are Non GAAP financial measures. See appendix for a list of items excluded from the US GAAP equivalent used to calculate these measures.
(3) Excluding royalties and other revenues.

Growth across portfolio drives $200m increase in Total Revenues



(1) Product sales (+$nil) and royalties (+$8m)

Operating leverage – Key Financial Ratios

Year on Year:	Q1 2012	Q1 2011
Product sales	+24%	+24%
R&D(1)	+10%	+36%
SG&A(1)	+25%	+14%
Combined R&D and SG&A(1)	+20%	+20%

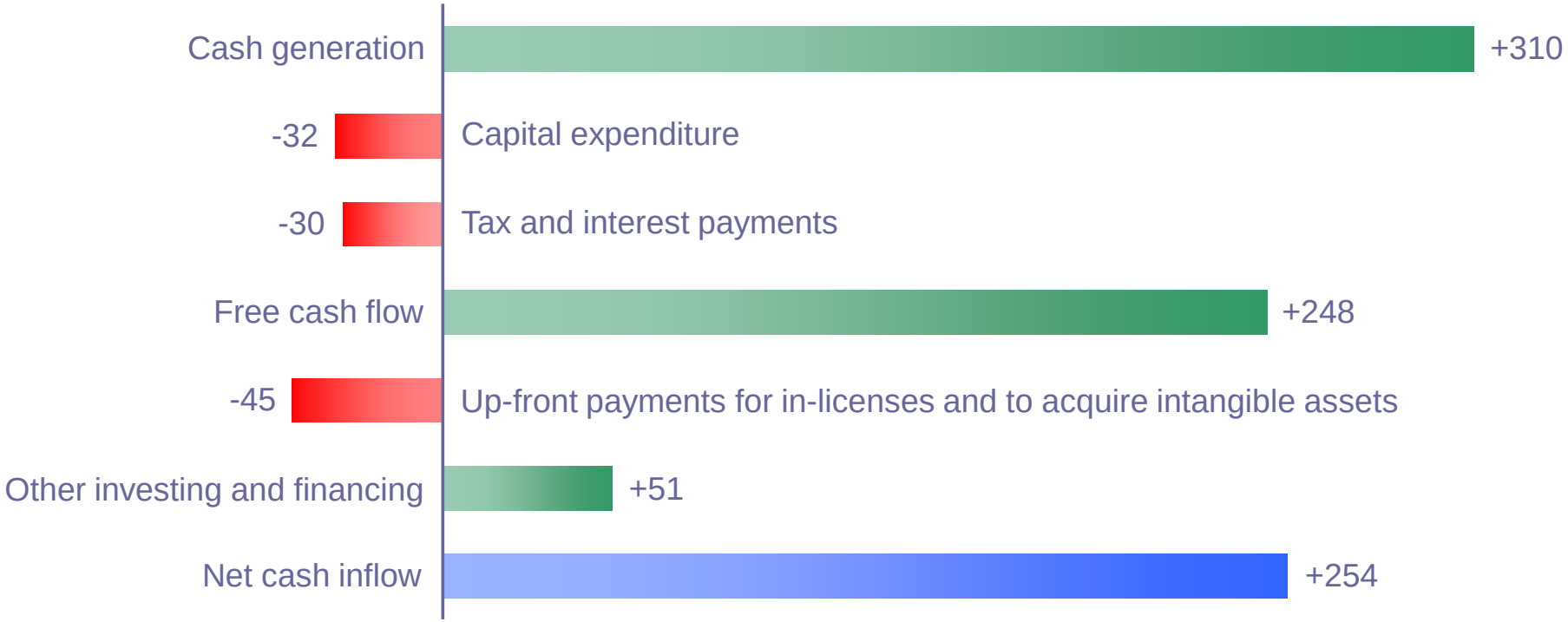
Ratios:

% of product sales		
Gross margin(1)	86.3%	86.9%
R&D(1)	17%	19%
SG&A(1)	40%	40%
EBITDA(1) (2)	29%	28%

(1) These are Non GAAP financial measures. See appendix for a list of items excluded from the US GAAP equivalents used to calculate these measures.
(2) Excluding royalties and other revenues.

Q1 2012 Cash flow

Millions of USD



Shire 2012 outlook

Full year 2012 dynamics	Direction versus FY 2011	
Product sales	↑	Growth in the mid teens range
Royalties	↓	Generic erosion (total royalties and other revenue down 15-25%)
Total Revenues	↑	Growth in the low teens range
Gross margins	≈	Marginal dilution from full year contribution of ABH
R&D and SG&A	↑	Continued investment for sustained future growth (up 12-14%)
Tax rate	↓	20-22% tax rate
Reported EPS-ADS	↑	Good earnings growth

Specialty Pharmaceuticals and Regenerative Medicine pipeline update

Dr. Jeffrey Jonas

SVP R&D, Specialty Pharmaceuticals and Regenerative Medicine

Shire

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VYVANSE® New Uses Update

Investigation of dopamine-norepinephrine modulation in

- ✓ Major Depressive Disorder (MDD)
- ✓ Excessive Daytime Sleepiness (EDS)
- ✓ Negative Symptoms in Schizophrenia (NSS)
- ✓ Binge Eating Disorder (BED)

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VYVANSE® New Uses Update

This communication describes investigational studies which evaluate the potential use of VYVANSE in treating non-ADHD conditions. These data are presented to inform the medical and financial communities about Shire development programs. No conclusions can be drawn regarding the safety or efficacy of VYVANSE in any of these other conditions without additional studies and review by regulatory authorities. VYVANSE is approved only for the treatment of Attention Deficit Hyperactivity Disorder. Shire does not recommend the use of its products in any way other than as described in the Prescribing Information.

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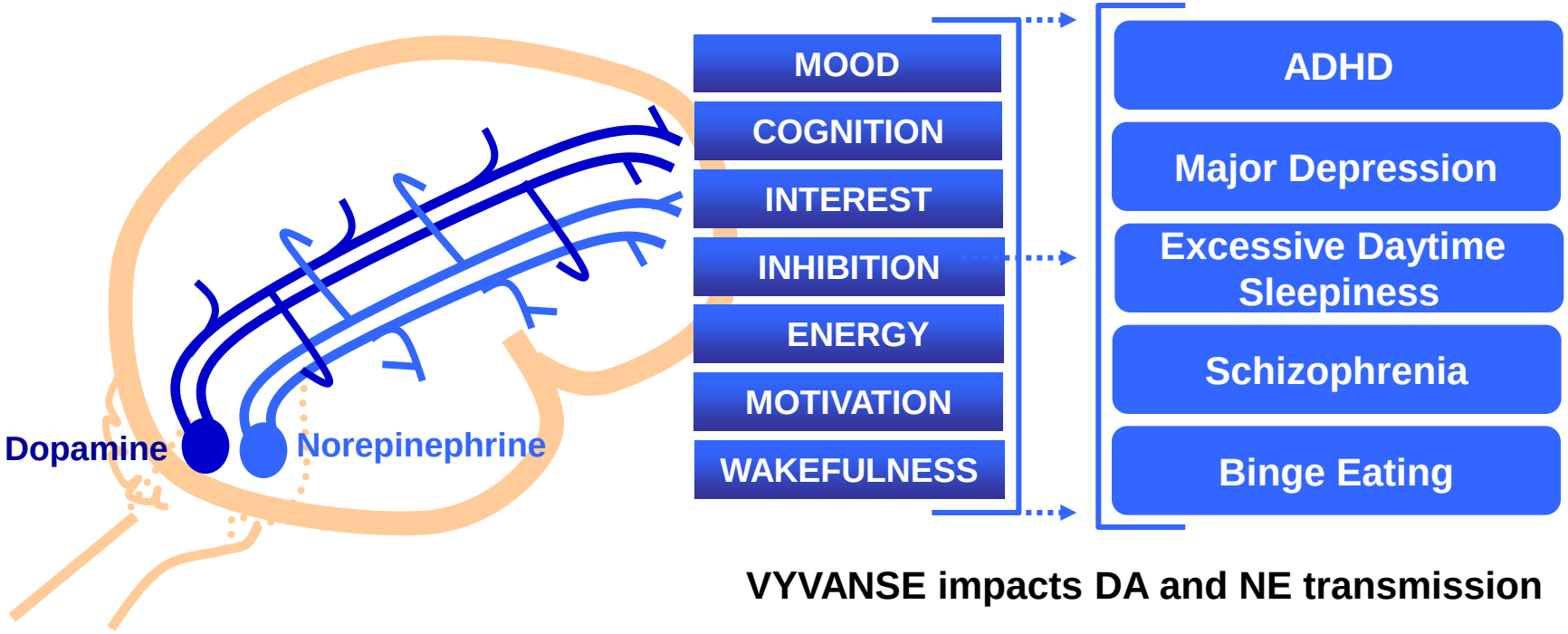
VYVANSE New Uses

Dopamine (DA) and norepinephrine (NE) dysregulation is implicated in many neuropsychiatric disorders

Dopamine-mediated clinical signs/symptoms include attention & focus, reward mechanisms, motivation, self-control and impulsivity, and the experience of joy



VYVANSE impacts DA and NE transmission

Kessler RC et al. *Am J Psychiatry* 2006;163:716-723; Atlfas et al. *BMC Psychiatry* 2002;2:9; Hudson et al. *Biol Psychiatry* 2007;61:348-358; Ross et al. *Schiz. Res* 2006;88:90-95; Wingo et al. *J Clin Psychiatry*, 2007, 68:11:1776-1784; Walters et. al. *J Clin Sleep Med*, 2008, 4:6:591-600; Dunlop & Nemeroff *Arch Gen Psych* (2007); 64:327-37.

VYVANSE New Uses

Progress of development programs

Augmentation in Major Depressive Disorder

- Phase 3 program began 4Q11 and is enrolling on-track
- 3 controlled, short-term trials and 1 open-label long-term trial
  - Enrollment ~ 24 months, Treatment: 4 to 12 months, depending on trial
  - Final submission expected to include ~1,500 subjects

Augmentation in Negative Symptoms in Schizophrenia

- Completed blinded safety study of doses >3x current commercial range
- Potential for higher dose range established
- Approved for Fast Track designation by FDA

Monotherapy in Excessive Daytime Sleepiness

- Completing business examination in setting of development plan options

Monotherapy in Treatment of Binge Eating Disorder

- Phase 2 study met primary endpoint

VYVANSE New Uses: *Binge Eating Disorder (BED)*

Common eating disorder in US, Western EU

- Serious and common eating disorder in developed countries
  - Lifetime prevalence rates ~1 to 3% (across US and Western EU)
- Biologic-genetic underpinnings, predispositions, and outcomes
  - Dopamine-signalling abnormalities have been directly implicated in BED
- Onset in adolescence-young adulthood, substantial medical-psychiatric morbidity and reduced quality of life
  - Mean duration 14.4 years, significantly longer than anorexia, bulimia nervosa
- Planned as independent diagnosis in updated diagnostics (DSM-5; 2013)
  - Recurrent episodes at least 2 days/wk for 6 months: eating an amount of food definitely larger than normal with a loss of control over food intake (during discrete period)
  - Associated with eating more rapidly than normal, when not physically hungry, until uncomfortably full, or alone due to shame, leaving individuals feeling disgusted, guilty, distressed

Hudson et al, Biol Psych 2007: 61 (3):348-58; Preti et al, J Psychiatric Res 2009: 43: 1125-32; Kessler et al 2012, submitted; Nicholls et al. Br J Psychiatry 2011; 198: 295-301; Isomaa et al, Nord J Psychiatry 2010: 64 (2): 123-9; Lee & Lin, Int J Eat Disord 2010: 43 (6): 498-504; Root et al, Eat Behav 2010: 11: 92-98; Finlayson et al, Appetite 2011: 722-8; Sierra Baigrie et al, Span J Psychol 2008: 11: 172-80; Vocks et al, Int J Eat Dis 2009: 43 (3) 205-17; Munsch et al, Eur Eat Dis Rev 2007; 15 (5): 385-99; Pope et al, Am J Psych 2006: 163: 2181-83; Striegel-Moore et al, Int J Eat Disord 2000; 27: 381-9.

VYVANSE New Uses: BED

Market Dynamics (US)

Prevalence of Binge Eating Disorder
3MM to 6.5MM

Diagnosis rate =10 to 25%

Diagnosed
0.3MM to 1.6MM

Treatment rate = 10 to 40%

Treated
30,000 to 650,000

Potential BED Patients
> 3,000,000

Binge Eating Disorder symptoms present substantial morbidity

Estimated Total Cost (US)
>$20 Billion per year

- **Psychiatric disability**
- **Medical morbidity**
- **Reduced quality of life**
- **Direct annual costs similar to anorexia, bulimia nervosa**

Total BED Market Value (estimated)
>$5 Billion per year

- **No FDA-approved treatment**
- **Psychotherapy sub-optimal**

Hudson et al, Biol Psych 2007: 61 (3):348-58; Preti et al, J Psychiatric Res 2009: 43: 1125-32; Kessler et al 2012, submitted; Nicholls et al. Br J Psychiatry 2011; 198: 295-301; Isomaa et al, Nord J Psychiatry 2010: 64 (2): 123-9; Lee & Lin, Int J Eat Disord 2010: 43 (6): 498-504; Root et al, Eat Behav 2010: 11: 92-98; Finlayson et al, Appetite 2011: 722-8; Sierra Baigrie et al, Span J Psychol 2008: 11: 172-80; Vocks et al, Int J Eat Dis 2009: 43 (3) 205-17; Munsch et al, Eur Eat Dis Rev 2007; 15 (5): 385-99; Pope et al, Am J Psych 2006: 163: 2181-83; Striegel-Moore et al, Int J Eat Disord 2000; 27: 381-9.

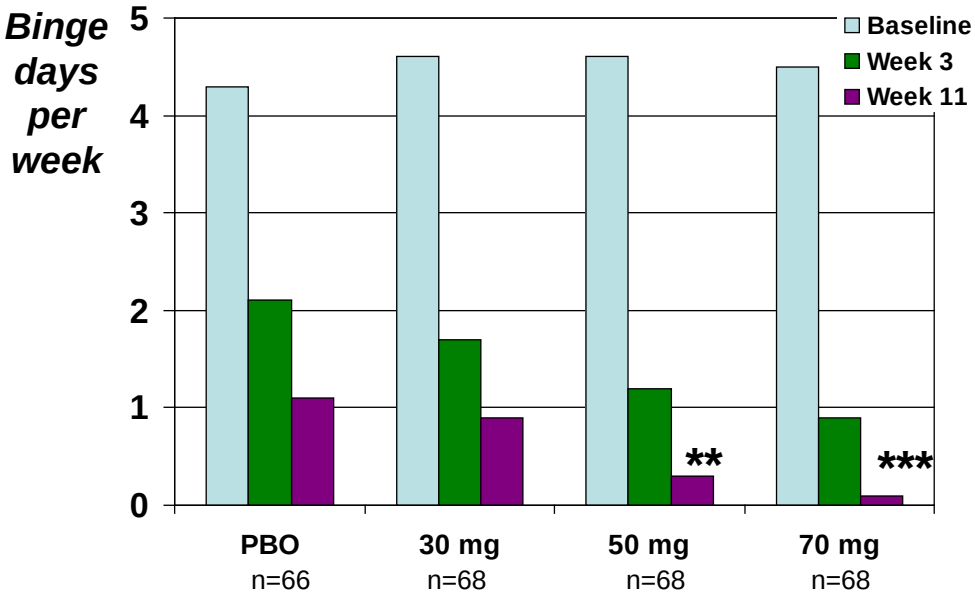
VYVANSE New Uses: BED

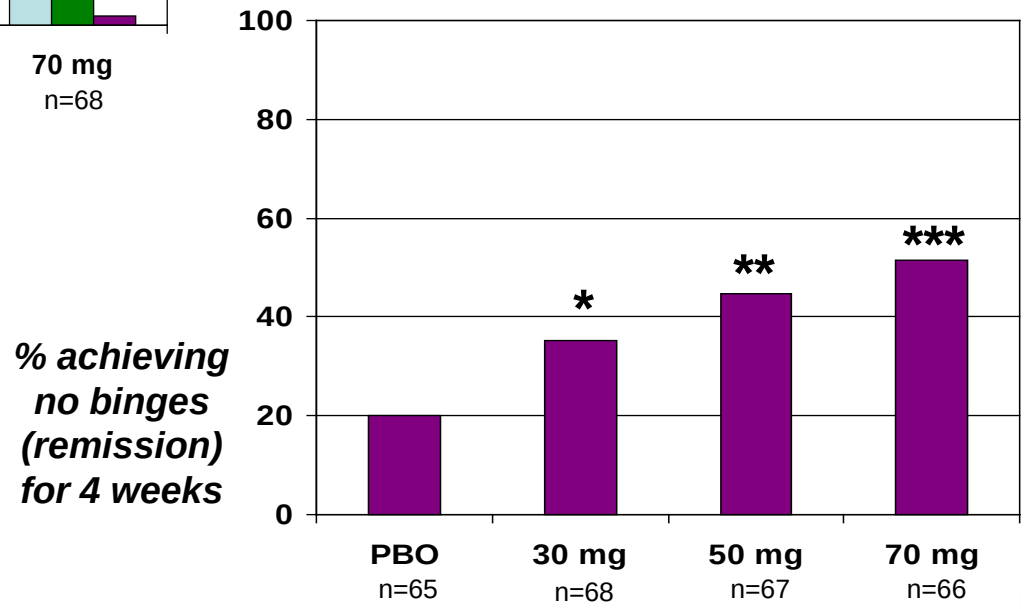
Study 208: Binge Eating Disorder, Phase 2

- 11- week, randomized, double-blind, placebo-controlled monotherapy design at 30 US sites
  - Weekly safety and efficacy assessments, daily eating diary
  - One of 3 fixed doses (30, 50, or 70 mg/day) or placebo
  - 271 enrolled, 213 completed (79%)
  - Mean age = 39, 82% female, 78% Caucasian, mean BMI = 35
- Patients met BED criteria with no other significant major mental illness, no bulimia or anorexia
  - No major chronic medication co-administration (no anti-depressants, sedatives, or anti-psychotics)
  - Maximum of mild depressive symptoms permitted (MADRS ≤ 18)
  - No lifetime history of stimulant abuse, recent substance abuse
- Primary endpoint: Number of binge days per week
  - Additional efficacy measure included eating disorder scale and inventory, depression-anxiety and impulsivity ratings, global clinical, quality of life, and resource utilization assessments
  - Standard safety measures

VYVANSE New Uses: BED

Significant improvement in binge eating episodes and remission rates with 50mg and 70mg doses at 11 weeks





Compared to placebo *p<0.05 **p<0.01 ***p<0.001

SPD489-208: Tables 3.1.1.1, 3.2.2.1

VYVANSE New Uses: BED

Significant improvement in Global Clinical Impression (CGI)

CGI-I Results at endpoint

Response n (%)	Placebo N = 65	SPD489 30mg N = 68	SPD489 50mg N = 67	SPD489 70mg N = 66
Improved **(very much, much)**	40 (61.5)	57 (83.8)	61 (91.0)	62 (93.9)
Not Improved **(minimal, none)**	25 (38.5)	10 (14.7)	6 (9.0)	4 (6.1)
P-Value	-	0.0022	< 0.001	< 0.001

VYVANSE New Uses

Summary and Next Steps

Summary and next steps (BED)

- VYVANSE significantly superior to placebo on primary endpoint (50mg & 70mg doses)
- Safety generally consistent with the well-documented profile of VYVANSE *
  - Adverse event profile & mean changes in vital signs similar to current VYVANSE label; evaluation continues
- Complete Health Authority interactions to set Phase 3 parameters

Summary and next steps (VYVANSE New Uses)

- Continue progress for MDD program during 2012
- Continue development planning for NSS in new context of positive FDA Fast Track decision
- Decision on EDS program in setting of multiple VYVANSE New Uses options

* There were three serious adverse events (SAEs), including one with outcome of death, in patients treated with VYVANSE. No SAEs were judged by investigator to be drug related. Seven VYVANSE patients discontinued due to Treatment-emergent AEs; none on placebo .

Phase 4 Trial - Effectiveness of VYVANSE® Compared to Concerta in Adolescents With ADHD

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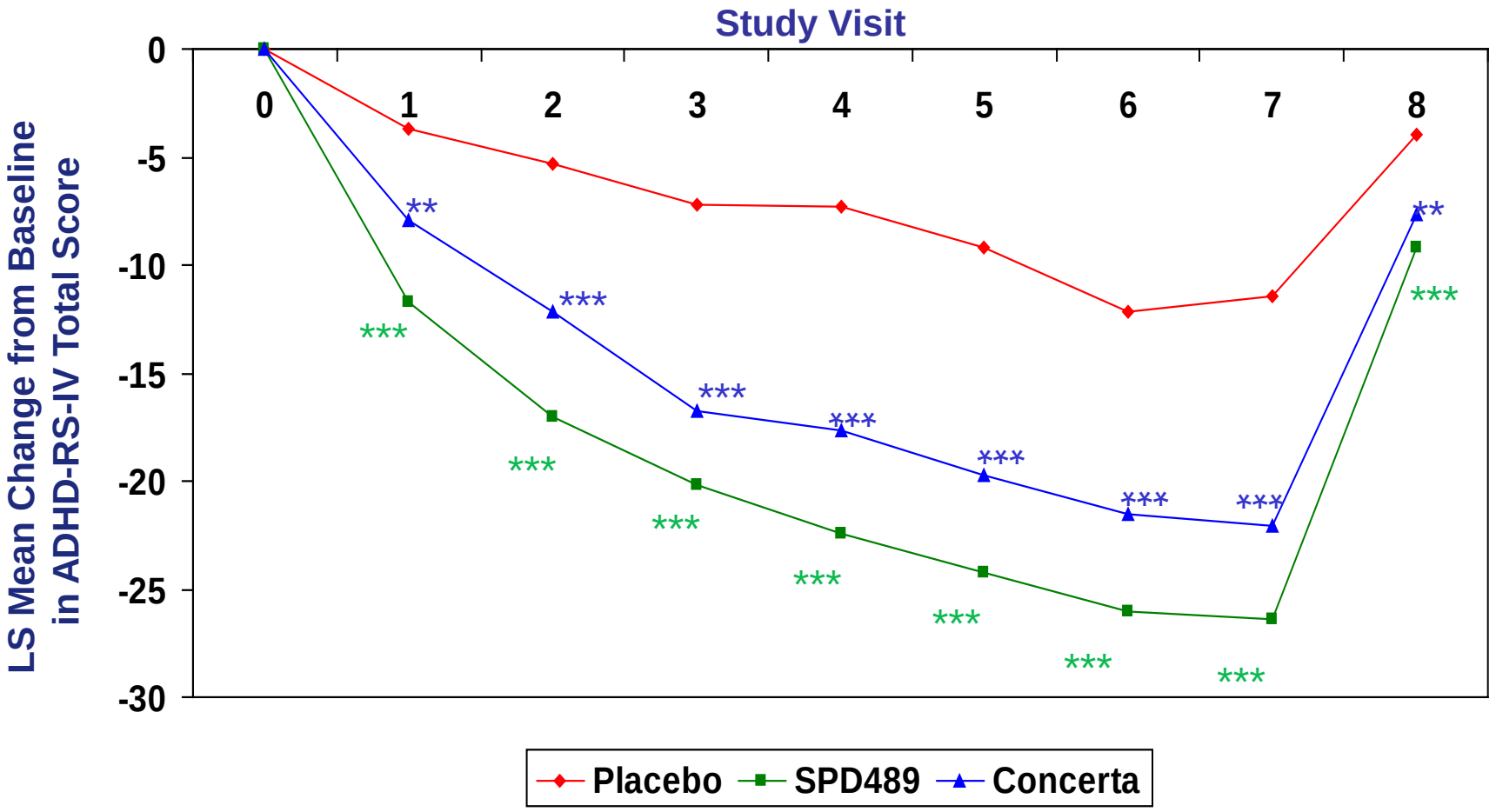
We enable people with life-altering conditions to lead better lives.

Overview

- Based on data from the 325 study (with Concerta as reference arm), new trials have a good probability of differentiating VYVANSE from Concerta in ways that are expected to be clinically meaningful to patients, physicians, and payors.
- As a leader in ADHD therapy and research, Shire is committed to expanding our knowledge about ADHD and its treatment.
  - These, first-of-their-kind trials are an example of this commitment.
- Program objective: generate promotable superiority data versus Concerta and differentiate VYVANSE from other products in the category.
  - Will conduct two Phase 4 trials
- If successful, superiority data versus Concerta should expand the VYVANSE prescriber base, providing a potential new growth driver
- Results from these trials expected 2H 2013.

SPD489-325 Summary of Findings –
LS Mean Change from Baseline in ADHD-RS-IV Total Score (Full Analysis Set)

- Safety generally consistent with current VYVANSE label and amphetamine treatment -



**p-value<0.01 ***p-value<0.001

Formal comparisons between VYVANSE and Concerta were not planned.

Acquisition of FerroKin BioSciences and FBS0701 (Iron Overload)

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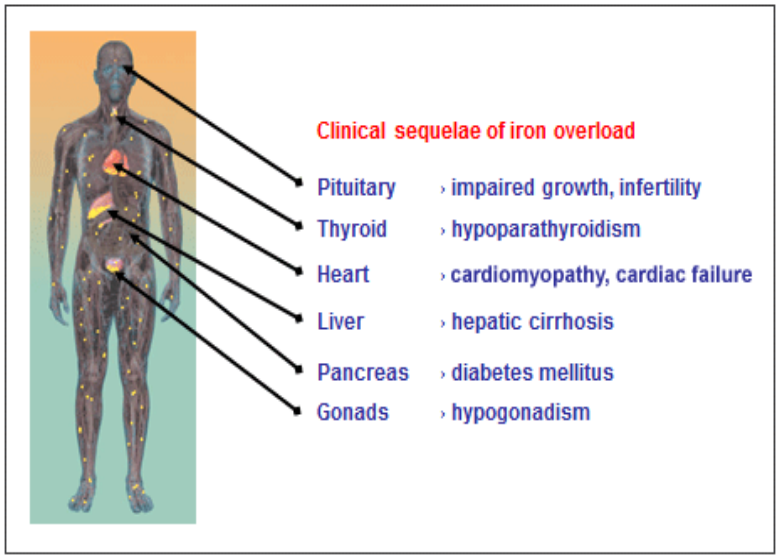
Hematology: Therapeutic Area of Focus
Expanding Product Portfolio (Xagrid, SPD535 & Sangamo Collaboration)

- Iron Overload
  - Iron is an essential element in body - the typical adult human body contains 3,000-4,000 mg
- As body has no means to eliminate iron, repeated therapeutic transfusions in patients with thalassemia major, sickle cell disease, myelodysplastic syndrome, and various other anemias results in the accumulation of iron in key organs compromising their normal function
- If left untreated, progressive iron overload will eventually lead to organ failure, most notably the liver and heart – thus treatment is needed to remove excess iron
- Market size estimated to be $900MM and growing[1]
  - Significant market opportunity for oral iron chelator which effectively and safely removes iron from the body

Organ Systems Susceptible to Iron Overload[2]



[1] Burrill Report
[2] Iron Health Alliance

FBS0701 (SPD 602) – "A New Chelator in the House"[1]

- Acquisition of Ferrokin Biosciences completed April 2
  - FBS0701 is a novel, oral (tablet), once-a-day iron chelator
    - In preclinical studies, >4-fold higher no-observable-adverse-effect level compared to Exjade® [2]
- Phase 2 Results[3]
  - Efficacy: Effective at clearing iron
    - Dose of 32 mg/kg/day achieved satisfactory iron loss in approximately half of patients
      - Doses >32mg/kg/day expected to achieve negative iron balance in a greater percentage of patients
  - Safety: Well-tolerated at therapeutic doses
    - Low incidence of gastrointestinal side effects
    - Treatment was not associated with dose-dependent changes in serum creatinine – biomarker for renal dysfunction
    - No drug-related SAEs in 1.5 years of treatment

Exjade® Prescribing Information

WARNING: RENAL, HEPATIC FAILURE AND/OR GASTROINTESTINAL HEMORRHAGE

See full prescribing information for complete boxed warning

Exjade may cause :

- renal impairment, including failure
- hepatic impairment, including failure
- gastrointestinal hemorrhage

In some reported cases, these reactions were fatal. These reactions were more frequently observed in patients with advanced age, high risk myelodysplastic syndromes (MDS), underlying renal or hepatic impairment or low platelet counts (<50 x 10^9/L). Exjade therapy requires close patient monitoring, including laboratory tests of renal and hepatic function. (4, 5)

Table 2. Number (%) of Patients with Increases in Serum Creatinine or SGPT/ALT in Study 1 and Study 3

	Study 1 (ß-Thalassemia)		Study 3 (Sickle Cell Disease)	
Laboratory Parameter	EXJADE N=296 n (%)	Deferoxamine N=290 n (%)	EXJADE N=132 n (%)	Deferoxamine N=63 n (%)
Serum Creatinine				
Creatinine increase >33% and <ULN at 2 consecutive postbaseline visits	113 (38.2)	41 (14.1)	48 (36.4)	14 (22.2)
Creatinine increase >33% and >ULN at 2 consecutive postbaseline visits	7 (2.4)	1 (0.3)	3 (2.3)	2 (3.2)
SGPT/ALT				
SGPT/ALT >5 x ULN at 2 postbaseline visits	25 (8.4)	7 (2.4)	2 (1.5)	0
SGPT/ALT >5 x ULN at 2 consecutive postbaseline visits	17 (5.7)	5 (1.7)	5 (3.8)	0

[1] Taher AT, et al., *Blood.* 2012 119: 3191-3192 [2] Bergeron RJ, et al., *J Med Chem*. 2008; 51 (13):3913-23 [3] Neufeld EJ, et al., *Blood.* 2012;119(14):3263-3268

FBS0701 (SPD 602) – Next Steps

- Complete dose-ranging program to define risk-benefit profile of a higher dose range of FBS0701
  - Planned phase 2 study evaluating doses up to 75 mg/kg/day to be initiated in Q2 2012
- Meetings with US & EU regulatory agencies and reimbursement authorities to define clinical development program
  - Phase 3 objective to include comparisons to available chelators in different disease (MDS and hemoglobinopathies) and age (pediatric and elderly) subgroups to differentiate FBS0701 in ways that will be clinically meaningful to patients, physicians, and payors
    - Explore potential for accelerated market access in patients with highest unmet medical need
  - Establish clear demonstration of favorable cost effectiveness profile

VASCUGEL®

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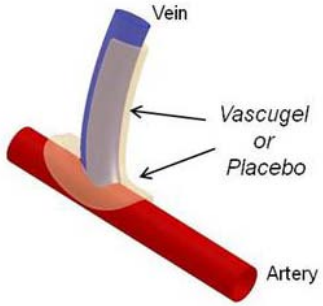
VASCUGEL: Tissue-Engineered Endothelial Cells

Allogeneic endothelial cells cultured

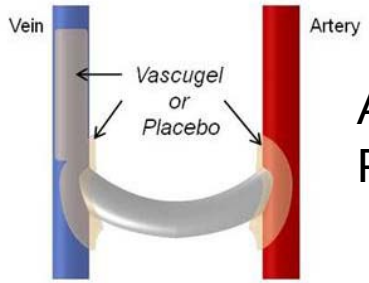
Cells embedded in a polymer matrix

Stored for off-the-shelf usage

Administered locally at site of impact



AV Fistula Placement



AV Graft Placement

Shire To be as brave as the people we help.

Hemodialysis Access in End Stage Renal Disease Patients: Unmet Medical Need

- Arteriovenous (AV) access is a growing need due to increasing number of patients requiring dialysis associated with diabetes and other diseases of aging
- Estimated 820K patients with ESRD treated each year in US and EU; approx. 70% (more than 570k) of these patients receive hemodialysis (AV access achieved through AV fistula and/or AV graft)[(1),(2)]
- 100k AV fistulas and 60k AV grafts annually in the US
- Significant medical need for improved durability/optimal healing at sites of anastomosis between artery/vein (AVF) or artery/graft (AVG) in dialysis patients
  - 15% of AVG fail acutely and ~50% of AVG require intervention for each year of patient therapy[(3)]
  - ~50% of AVF fail to achieve maturation[(4)]
  - AV access failure is most common reason for hospitalization among hemodialysis patients[(5)] and can lead to anemia, infection, weight loss, jaundice, prolonged bleeding, and other serious complications
- There do not appear to be any therapeutic options in development to address this market need
- Focus will be on completing a Phase II program in AV access to instruct future development pathway

Sources: [(1)]2011 United States Renal Data System Annual Data Report; [(2)]European Kidney Health Alliance; [(3)]KDOQI guidelines; [(4)]ASN press release, 12/22/2010; [(5)]Castner D, *Anna Journal*, 1998; 25(4): 393-396

Concluding remarks

Angus Russell

Chief Executive Officer

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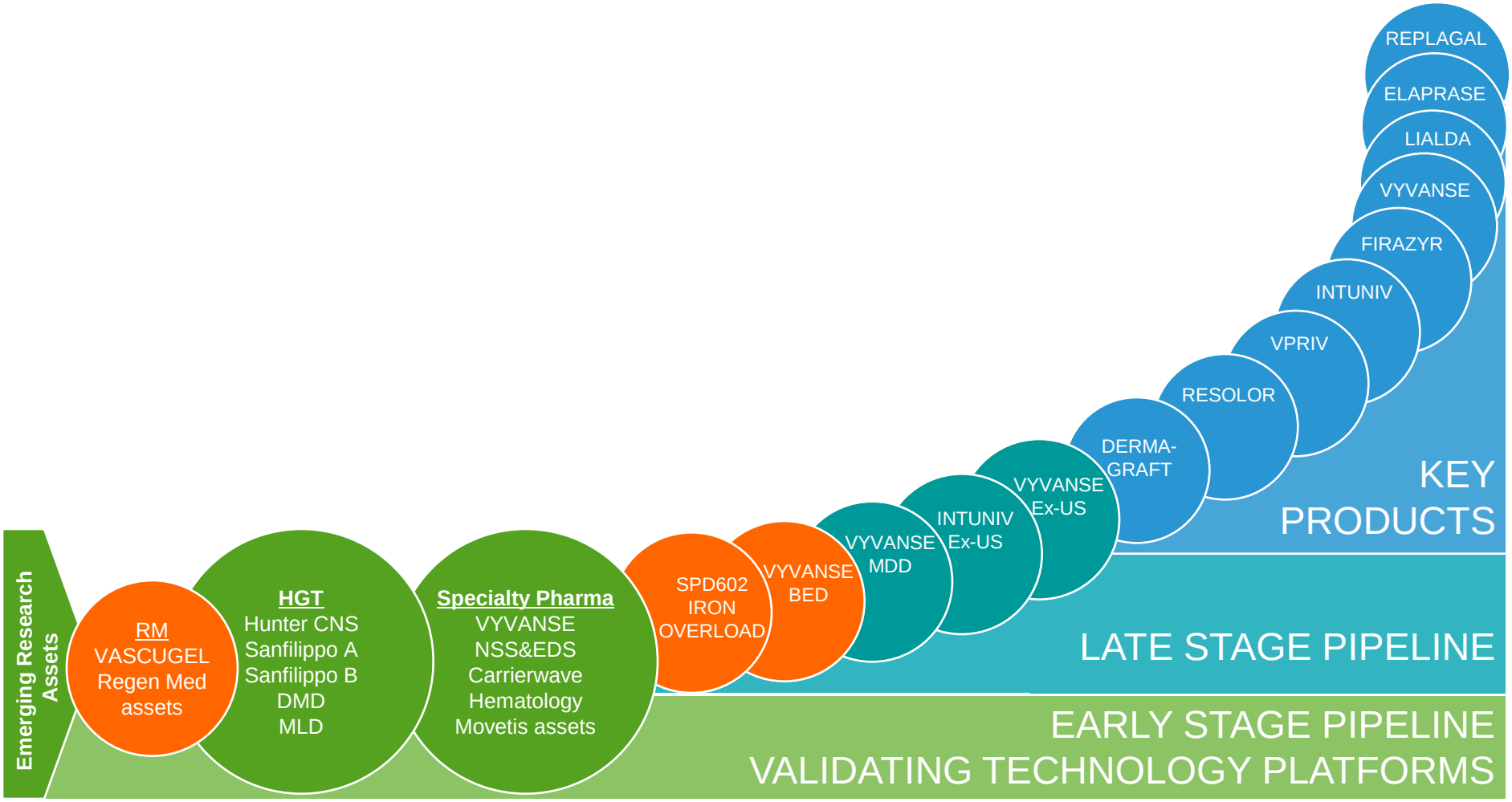
Investing to deliver growth now and into the future, supported by strong cash generation



Key newsflow for next 12 months

- Potential DERMAGRAFT Canadian approval
- Lexington manufacturing plant US approval for VPRIV
- Guanfacine Carrier Wave data and program decision
- Potential VENVANSE EU approval and launch
- VYVANSE BED phase 3 initiation*
- Sanfilippo A and Hunter Intrathecal program updates
- RESOLOR US phase 3 initiation*

Specialty Pharma Human Genetic Therapies Regenerative Medicine

* Pending discussions with regulatory authorities

Balanced product portfolio provides foundation for future growth

Delivering good revenue and earnings growth

Expanding the pipeline through new acquisitions and partnerships

Demonstrating value to stakeholders in a changing healthcare environment

Questions and Answers

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APPENDIX

2012 Portfolio Strength and Diversity – Q1 Product Sales

	Q1 2012 $m	Q1 2011 $m	Reported Growth	Like for Like Growth(1)
VYVANSE	260	202	+29%	+29%
REPLAGAL	134	105	+28%	+31%
ELAPRASE	126	104	+21%	+24%
ADDERALL XR	111	111	+0%	+0%
LIALDA / MEZAVANT	90	87	+3%	+4%
VPRIV	72	59	+22%	+23%
INTUNIV	69	42	+63%	+63%
PENTASA	66	65	+2%	+2%
DERMAGRAFT	49	-	n/a	n/a
FOSRENOL	46	41	+10%	+12%
FIRAZYR	20	5	+272%	+280%
OTHER	64	68	-4%	-2%
PRODUCT SALES	**1,107**	**889**	**+24%**	**+26%**

(1) 'Like for Like Growth' excludes movements in exchange rates by applying Q1 2011 exchange rates to Q1 2012 results.

2012 Emerging Shape of Shire Income Statement

	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2011 FY	2012 Q1	Direction V. FY 11	FY 2012 Dynamics Explanations
Total product sales	$889m	$994m	$1,018m	$1,049m	$3,950m	$1,107m	↑	Growth in the mid teens range
versus prior year	*+24%*	*+30%*	*+28%*	*+23%*	*+26%*	*+24%*		
Royalties & Other revenues	$83m	$69m	$68m	$93m	$313m	$65m	↓	Generic erosion (total royalties and other revenue down 15-25%)
versus prior year	*-15%*	*-18%*	*-15%*	*+17%*	*-9%*	*-22%*		
Total Revenues	$972m	$1,063m	$1,086m	$1,142m	$4,263m	$1,172m	↑	Growth in the low teens range
versus prior year	*+19%*	*+25%*	*+24%*	*+23%*	*+23%*	*+21%*		
Gross margin [1] [2]	87%	87%	86%	87%	87%	86%	≈	Marginal dilution from full year contribution of ABH
R&D [2]	$173m	$170m	$180m	$206m	$729m	$191m	↑	Continued investment for sustained future growth (up 12-14%)
versus prior year	*+$46m*	*+$26m*	*+$31m*	*+$28m*	*+$131m*	*+$18m*		
SG&A [2]	$352m	$389m	$389m	$393m	$1,523m	$441m		
versus prior year	*+$43m*	*+$85m*	*+$87m*	*+$20m*	*+$235m*	*+$89m*		
Tax Rate [2]	22%	23%	25%	19%	22%	20%	↓	20-22% tax rate
EPS - ADS	$1.23	$1.33	$1.28	$1.51	$5.34	$1.48	↑	Good earnings growth
versus prior year	*+22%*	*+29%*	*+10%*	*+47%*	*+26%*	*+20%*		

(1) Gross margin calculated as a percentage of product sales.
(2) These are Non GAAP financial measures. See appendix for a list of items excluded from the US GAAP equivalents used to calculate these measures.

Q1 2012 Royalties & Other revenues

	Q1 2012 $m	Q1 2011 $m	Reported Growth
ADDERALL XR	25	17	+51%
3TC and ZEFFIX	14	36	-62%
FOSRENOL	10	8	+23%
REMINYL & Other	7	13	-44%
Royalties	**56**	**74**	**-24%**
Other revenues	9	9	-8%
Royalties & other revenues	**65**	**83**	**-22%**

Q1 2012 Non GAAP cash flow measures

Non GAAP cash generation and free cash flow reconciliation	Q1 2012 $m	Q1 2011 $m
Non GAAP cash generation[(1)]	**310**	208
Tax and interest payments, net	**(30)**	(6)
Up-front payments in respect of in-licensed and acquired products	**(23)**	-
US GAAP Net cash provided by operating activities	**257**	202
Up-front payments in respect of in-licensed and acquired products	**23**	-
Capital expenditure	**(32)**	(47)
Non GAAP free cash flow[(2)]	**248**	155

(1) Non GAAP cash generation represents net cash provided by operating activities, excluding upfront and milestone payments for in-licensed and acquired products, tax and interest payments

(2) Non GAAP free cash flow represents net cash provided by operating activities, excluding upfront and milestone payments for in-licensed and acquired products, but including capital expenditure in the normal course of business

Non GAAP net debt

	Mar, 31 2012 $m	Dec, 31 2011 $m
Cash and cash equivalents	879	620
Restricted cash	15	20
Convertible bonds	(1,100)	(1,100)
Building finance obligation	(8)	(8)
Net debt	**(214)**	**(468)**

Shire has a revolving 5 year credit facility of $1.2bn signed in November 2010 which remained undrawn at March 31, 2012.

Non GAAP measures

- This presentation contains financial measures not prepared in accordance with US GAAP.
- These Non GAAP financial measures are used by Shire's management to make operating decisions because they facilitate internal comparisons of the Company's performance to historical results and to competitors' results. They should not be considered in isolation from, as substitutes for, or superior to financial measures prepared in accordance with US GAAP.
- The following items are excluded from these Non-GAAP financial measures:

Amortization and asset impairments:

- Intangible asset amortization and impairment charges; and
- Other than temporary impairment of investments.

Acquisitions and integration activities:

- Upfront payments and milestones in respect of in-licensed and acquired products;
- Costs associated with acquisitions, including transaction costs, and fair value adjustments on contingent consideration and acquired inventory;
- Costs associated with the integration of companies; and
- Non-controlling interest in consolidated variable interest entities.

Divestments, re-organizations and discontinued operations:

- Gains and losses on the sale of non-core assets;
- Costs associated with restructuring and re-organization activities;
- Termination costs; and
- Income / (losses) from discontinued operations.

REPLAGAL

Summary of recent data

- ✓ Canadian Fabry Disease Initiative (CFDI)
- ✓ 059 Study
- ✓ Japanese Switch Study
- ✓ Integrated results from 3 Placebo-controlled studies
- ✓ Fabry Outcome Survey (FOS)
- ✓ REPLAGAL Safety Profile

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REPLAGAL - Summary of recent data

Important Information

This summary presentation describes pooled, open label, and clinical studies which evaluate the potential use of REPLAGAL in the treatment of Fabry disease. These data are presented to inform the medical and financial communities about Shire's scientific programs and results.

REPLAGAL is approved for the treatment of Fabry disease in 46 countries worldwide, but it is not approved for commercial sale in the U.S. Shire does not recommend the use of its products in any way other than as described in the local Prescribing Information.

Canadian Fabry Disease Initiative (CFDI)

Data presented by CFDI in 2011 & 2012

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The Canadian Fabry Disease Initiative (CFDI) is an Independently Managed Head to Head Trial Comparing REPLAGAL to Fabrazyme

Goals of CFDI

- To establish a national database for the identification and monitoring of all subjects with Fabry disease in Canada
- To answer questions raised by evidence-based evaluation of Enzyme Replacement Therapy (ERT) namely:
  - To what extent do existing complications of Fabry disease respond or fail to respond to ERT (current study)
  - To compare the relative effectiveness of agalsidase alfa (REPLAGAL®) and agalsidase beta (Fabrazyme®) in preventing complications of Fabry disease
- To accurately define the natural history of Fabry disease in a non-referral based cohort

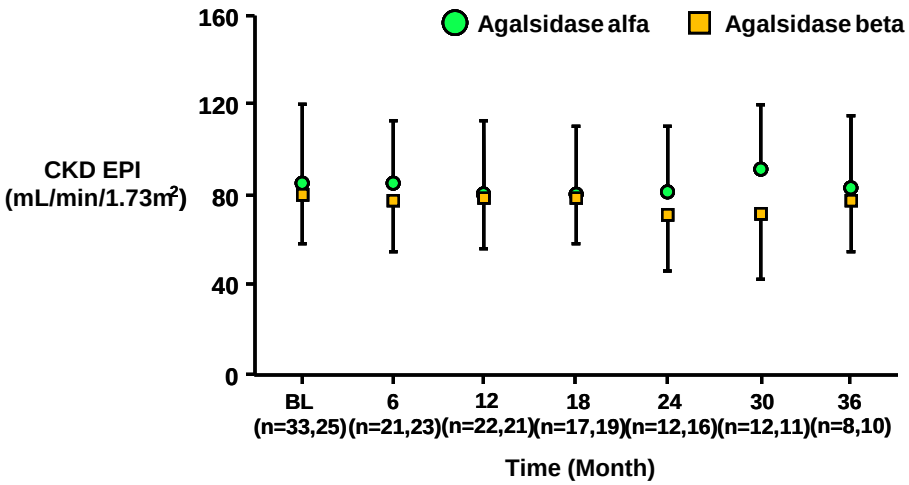
Data observations at Year 4

- No difference in Fabry-related outcomes between the REPLAGAL and Fabrazyme at respective licensed doses.

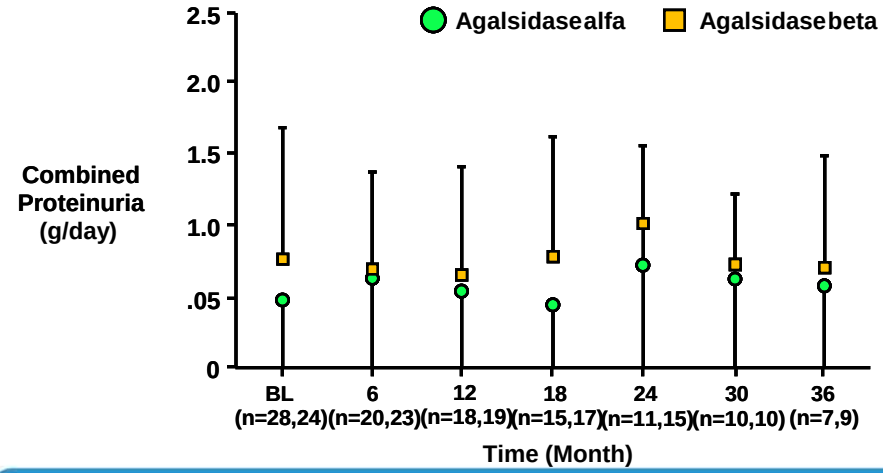
Baseline Characteristics			
Variable	Agalsidase alfa (REPLAGAL)	Agalsidase beta (Fabrazyme)	P[a]
N	37	29	
Male/Female	M 15/F 22	M 10/F 19	ns
Age (years) (Including Children)	47 16[b]	57 13	0.05
WBC α-gal (nmol/hr/mg)	4.5 21.9	8.0 14	ns
eGFR CKD EPI[c] (ml/min/1.73m^2)	82 35	76 22	ns
Proteinuria (g/day)	0.2 0.9	0.4 0.9	0.06
CKD stage	1.9 0.8	2.1 0.8	ns
Dialysis/Tx	3 (8.1%)	3 (10.3%)	ns
LVMI (g/m$^{2.7}$)	110 26	124 51	ns
LVPW[d]	1.2 0.3	1.3 0.3	0.05
Stroke/TIA	11 (29.7%)	6 (20.7%)	ns
MSSA[e]	24 10	29 10	ns

a Wilcoxan-Mann Whitney Test; b Median; c Excludes ESRD; d Left ventricular posterior wall thickness; e Mainz Severity Score for Fabry disease

CFDI – Renal Data

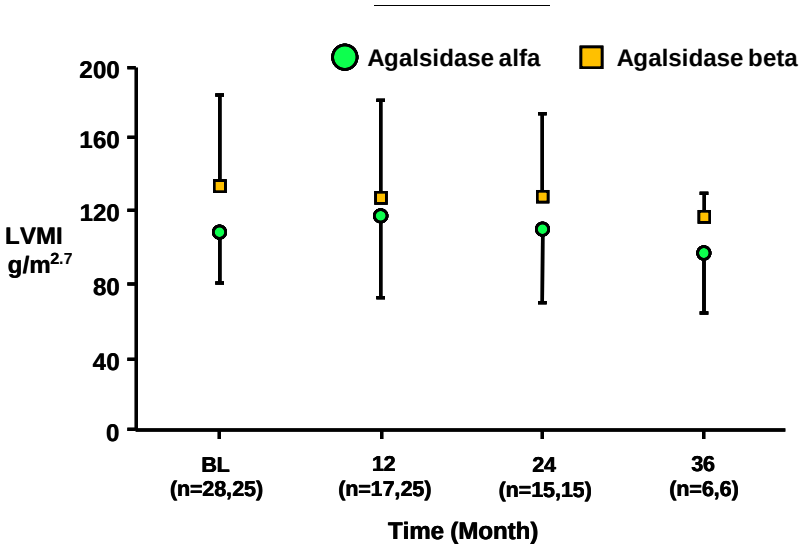


- After 36 Months, renal function is similar between both treatment groups



- After 36 months, levels of urine protein are similar between both treatment groups

CFDI – Cardiac Data



- After 36 months, Left Ventricular Mass Index (LVMI) show similar outcomes for patients treated with either REPLAGAL or Fabrazyme

Prospective Results of Switching Enzyme Replacement Therapy from Agalsidase beta to Agalsidase alfa in the CFDI show no clinical change

Results

- *Due to a severe shortage of agalsidase beta, 36 patients, (24 M, 12 F, mean age 50.2±12.7 yrs) were switched to agalsidase alfa in May 2010 from agalsidase beta (mean 70.3±25.1 mos, includes time pre CFDI). We report outcomes after a mean of 15.1±1.9 mos with agalsidase alfa. This group was characterized by advanced disease (dialysis or transplant 27.8%, chronic kidney disease 42.9% of the rest, hypertension 47.2%, LVH 68.8%, pacemaker 33.3%, and stroke or TIA 25%). Clinical parameters were compared between the time of switch and the latest 6 monthly visit.*
- *No differences were seen between the ERT periods in mean blood pressure, eGFR (MDRD), CKD stage, proteinuria and MSSI.*
- *Echocardiography was available pre and post switch in 20/36 (55.5%); mean LVM index, posterior wall thickness and NYHA grade did not differ between pre and post switch. Only septal wall thickness (SWT) differed (1.40 cm pre vs. 1.49 cm post p=0.032)*

Conclusions

- *These results suggest that in the short term, there is little detectable clinical change after switching patients with Fabry disease from agalsidase beta to agalsidase alfa in the CFDI. Whether the SWT increase is due to disease progression or switch of ERT is unknown*."

West et al, Molecular Genetics and Metabolism 105 (2012) S15–S69

REPLAGAL Study 059

US Open Label REPLAGAL Treatment Protocol

(Including patients who were naïve to treatment & who switched from Fabrazyme)

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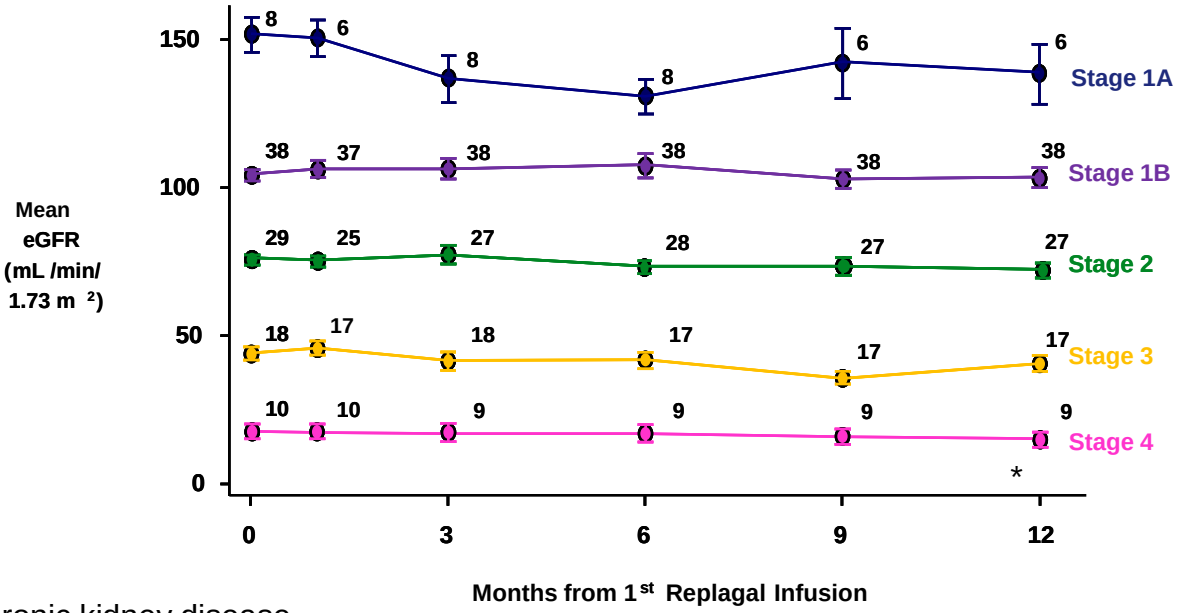
In the US, Patients in the Treatment Protocol 059 Maintained Stable Kidney Function When Treated With REPLAGAL

- All patients in Study 059, including those naïve to treatment as well as patients who switched from Fabrazyme, retain stable kidney function on REPLAGAL, as measured by estimated glomerular filtration rate (eGFR) regardless of baseline severity of kidney disease (CKD stage[a])
- Historically, untreated patients with CKD Stage 3 disease will decline by approximately -7ml/min/1.73m^2 per year[b]



CKD = Chronic kidney disease

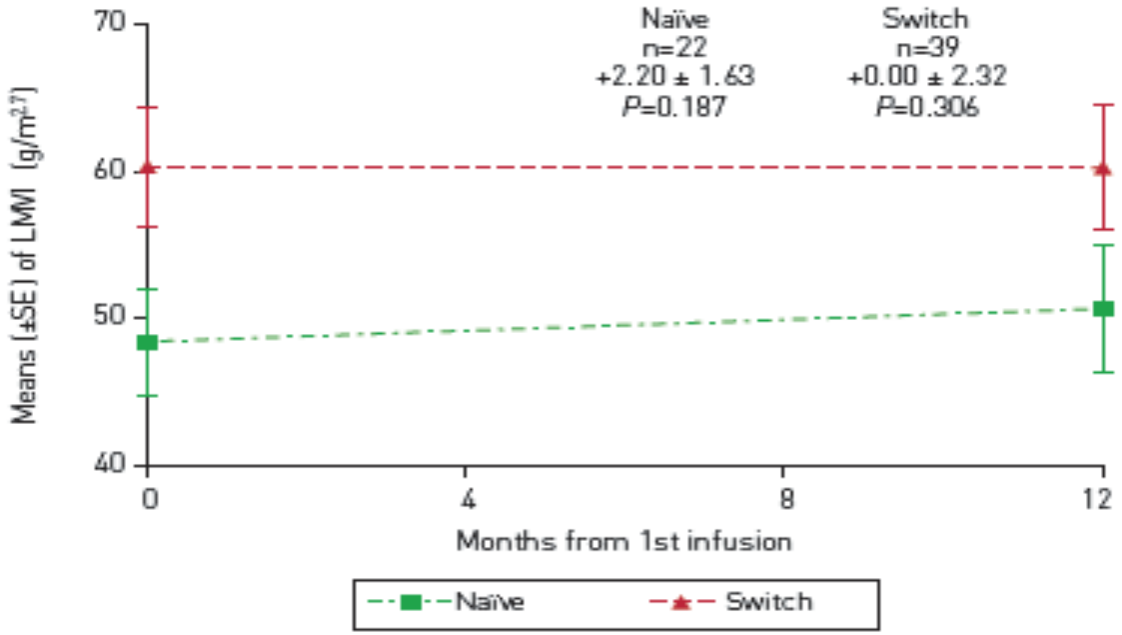
a K/DOQI Clinical Practice Guidelines for Chronic Kidney Disease

b Schiffmann *et al. Nephrol Dial Transplant* 2009;24:2102-11

Presented at ACMG 2012

In the US, Patients in the treatment protocol 059 showed no clinically meaningful change in left ventricular mass index

- There is no clinically meaningful change in left ventricular mass index (LVMI) to Month 12 in Study 059 for treatment naïve and switch patients
- Historically, untreated patients can see gain in LVMI of +4 g/m$^{2.7}$ per year[a]



[a] Kampmann, *et al.* *Int J Cardiol* 2008;130:367-73
Presented at ACMG 2012

Switch to REPLAGAL Treatment

Chart review of Japanese patients who switch from Fabrazyme to REPLAGAL

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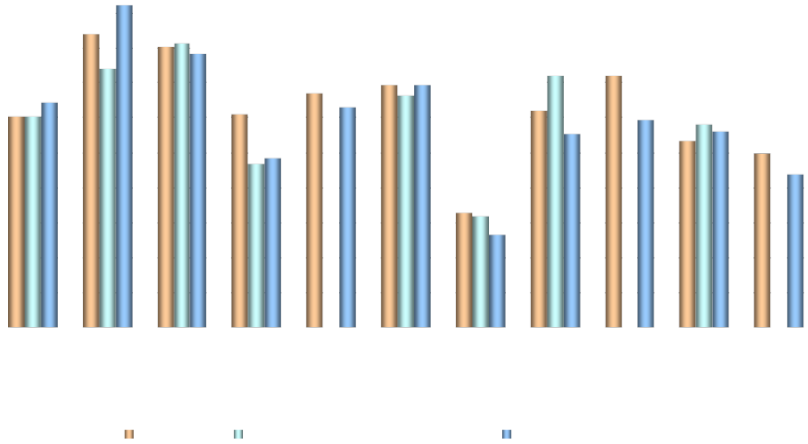
Fabry Disease is Stabilized in Patients Who Switch Treatment from Fabrazyme to REPLAGAL

- Ongoing observational study of 11 Japanese patients with a minimum of 36 months of data (24 months on Fabrazyme before switch to REPLAGAL and 12 months after switch to REPLAGAL)
- Fabry disease measures (including eGFR, LVMI, pain, QoL) remain stable after the switch

Mean eGFR before and after switch

Individual LVMI before and after switch



Tsuboi, K and Yamamoto H. *Genet Med* 2012 Apr 12. [E-pub]

REPLAGAL Integrated Renal Analyses

Integrated results from 3 REPLAGAL trials

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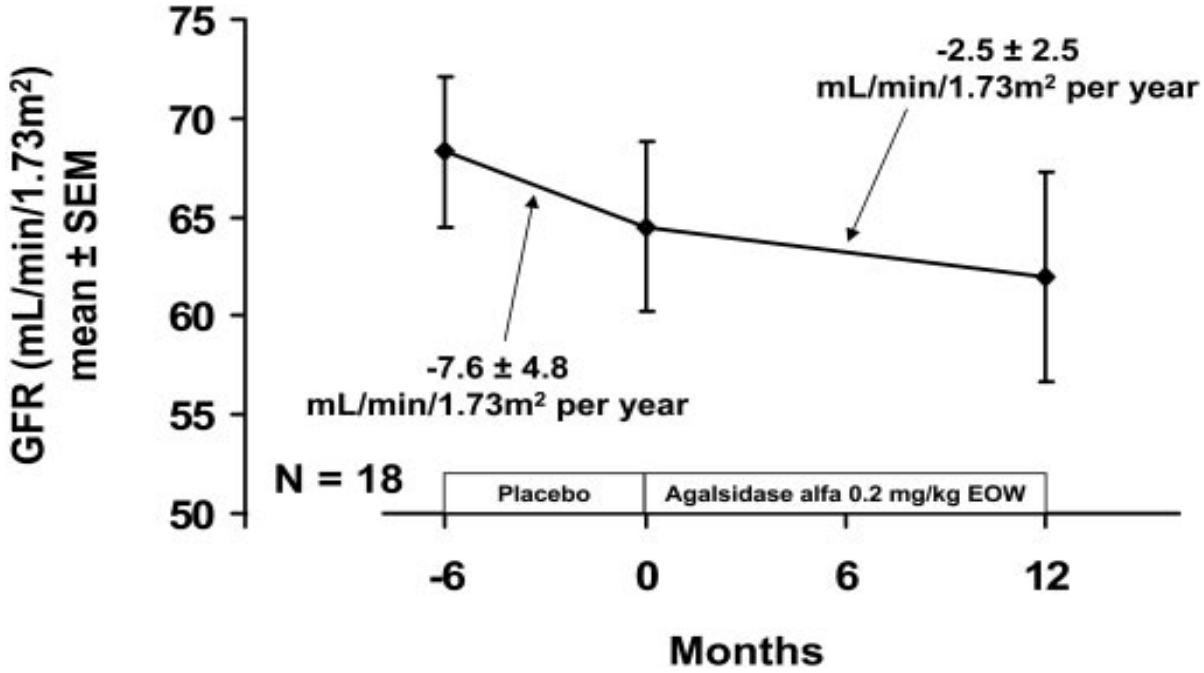
REPLAGAL Mitigates the Decline in Kidney Function that is Usually Seen in Untreated Fabry Patients

- Historically, eGFR decline in untreated patients varies from -4 to -32 mL/min/1.73m^2/year[a,b,c,d] depending on the population
- In the original REPLAGAL trials, the patients with baseline GFR between 30 and 90 ml/min per 1.73m^2 before treatment saw a decline in renal function of about -7.4 ml/min/1.73m2/year which is similar to what has been reported in the literature.
- After treatment with REPLAGAL, these patients saw a less rapid decline in glomerular filtration rate (GFR)[a] compared to pre-treatment, which is the goal of enzyme replacement therapy.



a West *et al. J Am Soc Nephrol* 2009;20:1132–9; b Branton *et al., Medicine* 2002;81:122-38;
c Eng *et al. Am J Hum Genet* 2001;68:711-22; d Schiffmann *et al. PNAS* 200;97:365-70

REPLAGAL
Fabry Outcome Survey

FOS findings after 5 years of REPLAGAL treatment

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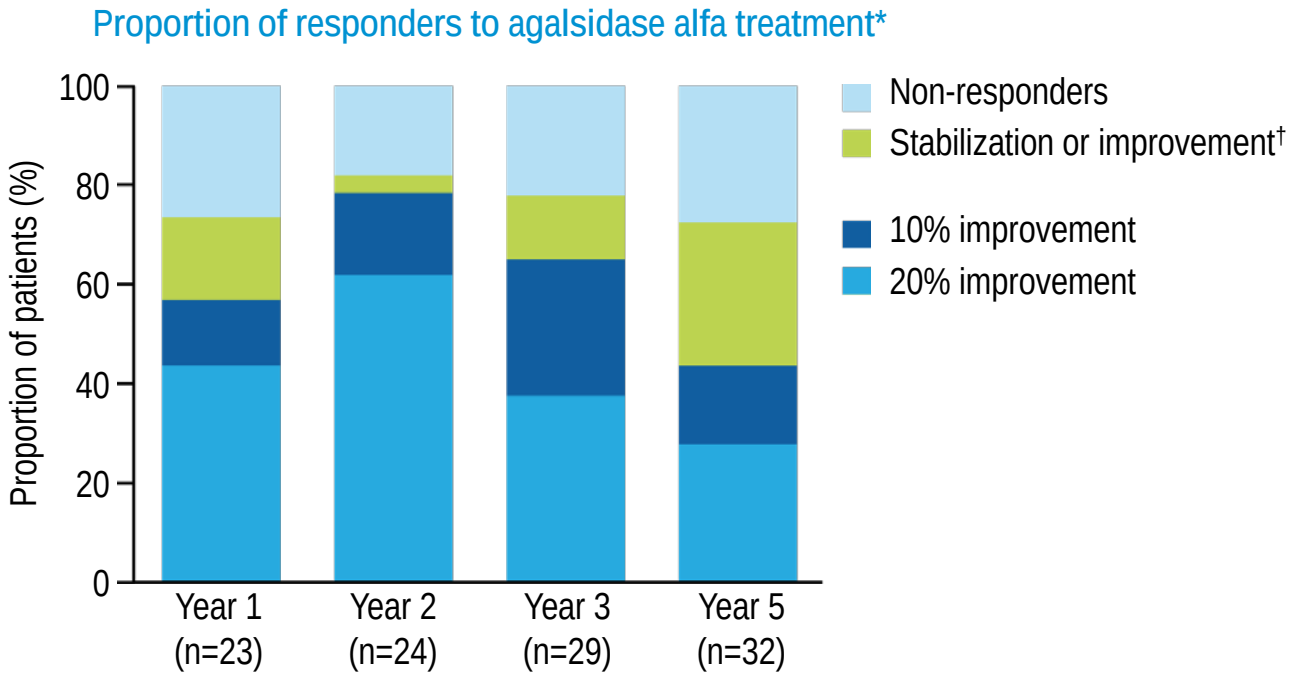
REPLAGAL Appears to Slow the Decline of Renal Function in Fabry patients with Significant Kidney Disease

Changes from Baseline to Year 5 in eGFR (Non-Transplanted Patients)[a]		
	N	Annualized Decline in eGFR (mL/min/1.73m^2)
All Patients	150	-2.46
130+ (Hyperfiltrators)	14	-7.09
90-129 (Normal)	48	-2.63
60-89 (Stage 2)	64	-1.53
30-59 (Stage 3)	23	-2.05
15-29 (Stage 4)	1	1.65
eGFR=estimated glomerular filtration rate		

- REPLAGAL treatment slows the rate of decline in kidney function as seen in the 5 year review of Fabry Outcome Survey.
- Patients with CKD stage 3 had an annual decline of -2 mL/min/1.73m^2, which is significantly better than that reported in untreated patients.
- For example, the annual rate of decline in untreated patients with GFR <60 mL/min/1.73m^2 has been reported[b] to be approximately -7 mL/min/1.73m^2.

a Adapted from Mehta *et al.*Lancet 2009;374:1986–96 and Erratum in Lancet 2010;375:200.
b Schiffmann *et al.*, Nephrol Dial Transplant 2009;24:2102-11

Cardiac Improvement Appears to be Maintained During 5 Years of Treatment with REPLAGAL



- In patients who had baseline Left Ventricular Hypertrophy (LVH), the effects of agalsidase alfa were maintained over 5 years, with 71.9% of patients achieving stabilization or improvement in LV mass index

*As measured by LV mass index ($g/m^{2.7}$); †patients with no deterioration or up to 10% reduction in LV mass index.

Mehta *et al*. Lancet 2009;374:1986–96 and Erratum in Lancet 2010;375:200.

REPLAGAL Safety Profile

Safety results from all sources

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REPLAGAL Safety Profile is Well Established

- The REPLAGAL safety profile has been well established after 15 years of clinical and commercial experience
  - >9,000 person-years safety experience in >2,900 patients worldwide
- The most serious adverse reactions seen with REPLAGAL were hypersensitivity reactions. Infusion-related reactions were the most commonly observed adverse reactions in patients treated with REPLAGAL in clinical studies. Most side effects are mild to moderate and include headache, tingling, numbness, tremors, fatigue, change in temperature sensation, increased blood pressure, upset stomach, diarrhea, coughing, sore throat, difficulty sleeping, change in the taste of food, change in smell, difficulty speaking, acne, dry skin and eye problems. About 1 out of 10 patients may have a reaction during or shortly after infusion of REPLAGAL. These effects include chills and facial flushing (warmth and redness)
- As with all therapeutic proteins, there is a potential for immunogenicity. IgG antibodies appeared to develop following approximately 3 to 12 months of treatment. After 12 to 54 months of therapy, 17% of REPLAGAL treated patients were antibody positive whereas 7% showed evidence for the development of immunologic tolerance, based on the disappearance of IgG antibodies over time. No IgE antibodies have been detected in any patient receiving REPLAGAL.
- REPLAGAL is not available in all countries and prescribing information may differ between countries. Please consult your local prescribing information.