Forward-Looking Statements

• This presentation contains forward-looking statements, including statements relating to: the planned separation of Bioverativ from Biogen; business and strategic objectives; growth prospects and potential opportunities for commercial products and pipeline programs; planned geographic expansion; manufacturing, supply and distribution arrangements; relationships with collaborators and other third parties; research and development activities and priorities; anticipated clinical trials and data readouts; business development plans and opportunities; and expected capitalization, revenues, operating margin, cash flows and other financial guidance. These forward-looking statements may be accompanied by such words as “anticipate,” “believe,” “could,” “estimate,” “expect,” “forecast,” “intend,” “may,” “plan,” “potential,” “project,” “target,” “will” and other words and terms of similar meaning. You should not place undue reliance on these statements.

• These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including: Bioverativ’s dependence on revenues from sales of ELOCTATE and ALPROLIX; failure to compete effectively due to significant product competition in the markets in which Bioverativ operates; product quality or safety concerns, including the occurrence of adverse safety events; product development risks; risks associated with clinical trials; risks relating to actions of regulatory authorities; risks related to reliance on third parties for manufacturing, supply and distribution of Bioverativ’s products and product candidates; difficulties in obtaining and maintaining adequate coverage, pricing and reimbursement for Bioverativ’s products; failure to obtain and maintain adequate protection for intellectual property and other proprietary rights; risks of doing business in international markets; risks associated with current and potential future healthcare reforms; failure to identify and execute on business development and research and development opportunities; Bioverativ’s dependence on relationships with collaborators and other third parties for revenue and other aspects of its business; loss of key employees or inability to attract and retain key personnel; disruptions to, or other adverse impact on Bioverativ’s relationships with its customers and other business partners; failure to comply with legal and regulatory requirements affecting Bioverativ’s business; the impact of global economic conditions; fluctuations in foreign exchange and interest rates; changes in the law concerning the taxation of income; risks relating to technology failures or breaches; the outcome of any significant legal proceedings; the adequacy of the Bioverativ’s cash flows from operations; Bioverativ’s lack of operating history as a standalone business; risks relating to the separation from Biogen, including, among others, risks that the separation will be completed in a timely manner or at all, failure to achieve the anticipated benefits from the separation, reliance on Biogen and other third parties to provide certain services post-separation, restrictions to preserve the tax-free treatment of the separation that may impact Bioverativ’s strategic and operating flexibility, and Bioverativ’s ability to satisfy liabilities and potential indemnification obligations in connection with the separation; and other risks and uncertainties described in the Risk Factors section of Bioverativ’s Registration Statement on Form 10 and other filings with the Securities and Exchange Commission.

• These statements are based on Bioverativ’s current beliefs and expectations and speak only as of the date of this presentation. Bioverativ does not undertake any obligation to publicly update any forward-looking statements.

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Today’s Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:05-10:10am</td>
<td>Introduction</td>
<td>Paul Clancy Biogen CFO</td>
</tr>
<tr>
<td>10:10-10:50am</td>
<td>Investment opportunity and strategic vision</td>
<td>John Cox Chief Executive Officer</td>
</tr>
<tr>
<td>10:50-11:10am</td>
<td>Global Therapeutic Operations</td>
<td>Rogerio Vivaldi, MD, MBA Chief Global Therapeutic Operations Officer</td>
</tr>
<tr>
<td>11:10-11:20am</td>
<td>Financial overview</td>
<td>John Greene Chief Financial Officer</td>
</tr>
<tr>
<td>11:20-11:25am</td>
<td>Closing</td>
<td>John Cox Chief Executive Officer</td>
</tr>
<tr>
<td>11:25-11:50am</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>11:50-12:40pm</td>
<td>Q&amp;A</td>
<td>Bioverativ Leadership Team</td>
</tr>
</tbody>
</table>
Welcome

Paul Clancy, Biogen CFO
Investment opportunity and strategic vision

John Cox, CEO
Our Vision is to become the…

leading hematology rare disease company committed to creating significant progress for patients
Bioverativ

A Unique and Compelling Investment Opportunity

Integrated capabilities  
Talented team  
Strong hemophilia franchise  
Capitalized to create value
Bioverativ: Why Compelling?

- Expected revenues of >$800 million in 2016 targeting a $10B+ market in hemophilia
- Generated $203 million of net cash flows from operations from Q1-Q3 2016
- Geographic presence in U.S., Japan, and Canada with opportunities to expand
- R&D, clinical development, regulatory prowess in hematology
- Proven commercial execution
- Expertise in process development, manufacturing, and supply of complex biologics
- Strategic Business Development and on-going R&D are levers for growth
- Appropriately sized organization
Positioned for Growth as a Stand Alone Company

Maximize Potential of ELOCTATE & ALPROLIX

Rapidly Advance our Discovery Molecules

Pursue Strategic Opportunities

Integrated Capabilities
Talented Team
Strong Hemophilia Franchise
Capitalized to Create Value
Accomplished and Driven Executive Leadership Team

John Cox
Chief Executive Officer

John Greene
Chief Financial Officer

Rogerio Vivaldi, MD, MBA
Chief Global Therapeutic Operations Officer

Richard Brudnick
EVP of BD & Alliance Management

Lucia Celona
Chief HR & Corporate Communications Officer

Andrea DiFabio
Chief Legal Officer
Strong Scientific, Medical Leaders with Hematology Expertise

Rob Peters, Ph.D.
SVP, Research
16+ years experience. Renowned hemophilia scientist. Inventor of Fc fusion technology at Syntonix

Maha Radhakrishnan, M.D.
SVP, Medical
12+ years in Medical Affairs leadership roles at BMS, Cephalon and Biogen. Global experience, most recently Europe Medical Head

Bill Hobbs II, M.D., Ph.D.
Executive Director, Clinical Development
10+ years of clinical and research experience. A leading treater of SCD and administered only adult SCD program in Pacific NW

Nisha Jain, M.D.
Executive Director, Medical
16+ years experience in hematology and rare diseases including experience in NIH and FDA

Michael Poirier, M.S.
SVP, Regulatory & Safety
16+ years in Regulatory Affairs at Biogen; Global Regulatory lead on key programs including Avonex, Tysabri, Tecfidera, and most recently Spinraza
## A Unique and Compelling Investment Opportunity

**Integrated Capabilities**

**Talented Team**

**Strong Hemophilia Franchise**

**Capitalized to Create Value**
Our Therapies; First Innovation in 20 Years

Industry Evolution

Plasma-Derived Clotting Factors
- Conventional or “short-acting” (1969–present)

Recombinant Clotting Factors
- (1990s–present)

FDA approval in 2014

Recombinant Extended Half-Life Factors
- (2014–present)

Next Generation Therapies
- Novel Bispecific Gene EHLs Abs Therapy
  (Future)

Spin-off from Biogen
Maximize EHL and Lead Next Generation Products

Note: Biogen acquired Syntonix in 2007
Hemophilia is a $10B+ Global Market, Growing at 7%
Opportunity for growth within each market segment

**Growing Hemophilia Market:**

- Prevalent population increasing globally
- Patients shifting from short-acting to EHL factors and from on demand to prophylaxis treatment
- ~30% of Hem A pts will develop inhibitors
- ~10% of Factor units used for immune tolerance induction (ITI) to eradicate inhibitors
- Bypassing agents for inhibitor patients expected to generate ~$2.1B in 2016

---

**Hemophilia A&B Factor Market:**

~$10B Globally

**Hemophilia A**

- ~151k identified patients
- ~80% of Hemophilic Population
- ~$8bn Global Market

**Hemophilia B**

- ~30k identified patients
- ~20% of Hemophilic Population
- ~$1.6bn Global Market

---

Prophylaxis population largely composed of moderate and severe patients

Note that the total estimated population with hemophilia is larger at ~400k estimated patients versus ~181k identified patients

---

Sources: WFH 2016, MRB 2016, AHTN 2016, Evaluate Pharma
ELOCTATE & ALPROLIX Have Delivered Strong Uptake Since Launch and are Approaching $800M+ in 2016

Hemophilia Product Revenue ($mm)

Q1-Q3 2016: $605M
ELOCTATE and ALPROLIX are the Only Factors Utilizing Proprietary Fc Fusion Technology

The Fc portion of the product temporarily binds to receptors in your body.

The product is released back into the bloodstream where it can temporarily recirculate in the body before degrading naturally.

Binding redirects the product back toward the bloodstream, avoiding degradation pathways.
Potential Opportunities to Address Significant Unmet Medical Needs with ELOCTATE and ALPROLIX

Immune Tolerance Induction

- Factor replacement can eradicate inhibitors vs bypassing them
- Based on early case reports\(^{(1)}\), further examination of ELOCTATE’s potential for ITI is warranted

Joint Health

- Risk of progressive and extremely debilitating joint disease is substantial
- Planning to further investigate ELOCTATE and ALPROLIX impact on joint health

Women with Hemophilia

- Many women with recessive gene for hemophilia have bleeding problems
- Need to better understand impact of bleeding problems on women and opportunities to mitigate their symptoms

\(^{(1)}\) Malec et al Haemophilia 2016, Ragni et al ASH 2016, Malec et al Blood 2015
A Unique and Compelling Investment Opportunity
Pipeline of Novel, Next Generation Hemophilia, Beta-Thalassemia, and Sickle Cell Disease Candidates

<table>
<thead>
<tr>
<th>Drug</th>
<th>Indication</th>
<th>Description</th>
<th>Modality</th>
<th>Discovery</th>
<th>Preclinical</th>
<th>Clinical</th>
<th>Marketed</th>
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</thead>
<tbody>
<tr>
<td>BIVV 001 ( rFVIII/Fc-VWF-XTEN )</td>
<td>Hem A</td>
<td>EHL factor 1x/weekly dosing or less frequent</td>
<td>Biologic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIVV 002 ( rFIXFc-XTEN )</td>
<td>Hem B</td>
<td>EHL factor Subcutaneous</td>
<td>Biologic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sangamo collaboration</td>
<td>Beta Thalassemia</td>
<td>Zinc finger nuclease (ZFN)</td>
<td>Genome Editing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sickle Cell</td>
<td>Zinc finger nuclease (ZFN)</td>
<td>Genome Editing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Raffaele collaboration</td>
<td>Hem A</td>
<td>Lentiviral vector</td>
<td>Gene Therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hem B</td>
<td>Lentiviral vector</td>
<td>Gene Therapy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FVIIIa mimetic bispecific ab</td>
<td>Hem A; Inhibitors</td>
<td>MOA not disclosed</td>
<td>Biologic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple early stage programs</td>
<td>Sickle Cell</td>
<td>Multiple MOAs</td>
<td>Sm Molecules</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

XTEN licensed from Amunix
BIVV 001 Designed to Extend Hemophilia A Prophylaxis to Once Weekly or Less Frequently

rFVIIIIFc-VWF-XTEN

Technology

Uniquely engineered factor VIII molecule with a region of Fc dimer, VWF, and XTEN polypeptides
- Fc monomer, like Eloctate, enables recycling to extend time in circulation
- D’D3 inhibits binding to VWF which limits the ceiling for current FVIII products
- XTEN insertions increase half-life by protecting from clearance/proteolysis

Potential Clinical Profile

Trials will be designed to test potential for prophylaxis intervals in Hemophilia A of once weekly or less frequent dosing

Competitive Positioning

rFVIII molecule with potential to eliminate 1/2 life limitations found with other EHL products

Timing

Intend to move into the clinic in 2017

Note: BIVV 001 is currently BIIB073, XTEN technology licensed from Amunix

Improved PK Profile of Intravenously Delivered BIVV 001 in Cynomolgus Monkeys

BIVV 001 showed 2-fold improvement in pharmacokinetic property compared to rFVIIIIFc in cyno monkeys
Scientific Rationale for BIVV 001 Molecule Design

Novel fusion protein, consisting of:

**D’D3 domains of VWF** provide protection & stability of VWF while **evading half-life limitation of endogenous VWF**

**XTEN polypeptides**, which improve the pharmacokinetic profile and degrade naturally

**rFVIII fused to dimeric Fc** which maintains thrombin-mediated release of FVIII from VWF like natural FVIII. Once released FVIII will then bind phospholipids and participate in the clotting cascade
BIVV 002 Designed to Enable Subcutaneous Administration

*rFIXFc-XTEN*

**Technology**

Combines Fc dimer and XTEN technology along with R338L Padua Factor IX variant in the treatment of Hemophilia B

**Potential Clinical Profile**

Trials will be designed to explore potential for subcutaneous dosing. Leverages Fc fusion technology

**Competitive Positioning**

Potential for subcutaneous dosing could lessen burden of care and to compete with gene therapy

---

Note: BIVV 002 is currently BIIB085, XTEN technology licensed from Amunix
Source: Preliminary modeling Arjan van der Flier & Qin Weng, DMPK
Molecular Design of BIVV 002

Activation of FIX cleaves and releases the AP domain and attached XTEN so that the resulting active FIXFc molecules are identical (except for R388L)

rFIX (BeneFIX)
rFIXFc (ALPROLIX)
rFIXFc-XTEN
Collaboration on Sangamo’s Non-viral, Ex-vivo ZFN-mediated Genome Editing Programs for β-thal, SCD

**Technology**

Zinc finger nuclease (ZFN)-mediated genome editing program for beta-thalassemia and sickle cell disease is based on the use of genome editing technology to modify a patient’s own (autologous) hematopoietic stem progenitor cells (HSPCs).

**Potential Clinical Profile**

Trials will explore potential in both beta-thalassemia and sickle cell disease, diseases with significant unmet medical need.

**Competitive Positioning**

Potential gene therapy treatment for rare diseases with significant unmet need.

MOA hypothesis in β-thal: increase HbF to compensate for no or low β-globin levels allowing for more normal RBC production and RBC lifespan.

MOA hypothesis in SCD: increase HbF levels to dilute the HbS, block polymerization, allow for more normal RBC function, and decrease RBC destruction (hemolysis).

**β-thal and SCD are rare diseases with significant unmet medical needs and are priority areas of focus for our Hematology franchise**
Large Opportunity Exists for Expansion in Rare Hematology

Global Non-Malignant Hematology Market (2016)

Additional Rare Hematology Opportunities:

- Hemophilia
- Sickle Cell Disease
- β-thalassemia

~$20-25B Market Potential

Hemophilia + Sickle Cell Disease + β-thalassemia

$10B+ Market

Bioverativ (ELOCTATE, ALPROLIX) >$800m

HUS
Aplastic Anemia
Wiskott-Aldrich
Hemolytic Anemias
PKD

Source: EvaluatePharma, Decision Resources, Company management
Business Development Vision: Sector Expert and Partner of Choice

• Numerous rare hematologic diseases with high unmet need and interesting accessible clinical stage assets

• Committed to exploring such opportunities to bolster our pipeline

• With our expertise we believe we can drive programs rapidly through the clinic and we aim to be the partner of choice

• Financial capacity provides potential to grow inorganically
Maximize
Potential of ELOCTATE and ALPROLIX

Enhance
Value with Patient-Centric Approach
Patient-Centric Model in Rare Hematology

CoRe Managers
Work directly with the community to provide educational information, resources, and info about our programs and services

National Account Managers
Dedicated to patient access working closely with payers

Advocacy Groups

Payers & Pharmacies

Healthcare Providers

Patient Services
Provides caregivers, patients and healthcare providers with dedicated and individualized support

Account Executives
Provide HCPs and HTCs with fair and balanced information

Bioverativ’s commercial structure well-positioned to continue to serve the needs of all our hematology customers in an efficient way
Strong Launches Position ELOCTATE & ALPROLIX for Future Success

US launch Q2 2014, Japan Q1 2015, Canada Q1 2016

US launch Q2 2014, Japan Q3 2014, Canada Q4 2015

*Note: Japan reporting for Alprolix share starting Jan 2015 only

Launch = March 2015

Launch = July 2014

Launch = September 2014 *

Launch = May 2014

*Note: Japan reporting for Alprolix share starting Jan 2015 only

Total Market Share

Months from Launch

Integrated Capabilities      Talented Team      Strong Hemophilia Franchise      Capitalized to Create Value
Broad Reach Across Hemophilia Treatment Centers, Opportunity to Drive Further Depth of Prescribing

90% of HTCs* have PRESCRIBED ALPROLIX to AT LEAST 1 PATIENT
*123 of 136 hemophilia treatment centers (HTCs)

Based on pharmacy dispensing records and HTC direct ordering through December 12, 2016.
Source: Biogen. SPP data on file.

NUMBER OF UNITS DISTRIBUTED
- 1,000,000+ units
- 400,000 – 1,000,000 units
- 550,000 – 400,000 units
- 0 – 250,000 units

90% of HTCs* have PRESCRIBED ELOCTATE to AT LEAST 1 PATIENT
*123 of 136 hemophilia treatment centers (HTCs)

NUMBER OF UNITS DISTRIBUTED
- 2,000,000+ units
- 750,000 – 2,000,000 units
- 250,000 – 750,000 units
- 0 – 250,000 units
Opportunity Remains for Further Growth from Shift to Prophylaxis and EHL Therapies

On Demand vs Prophylaxis

Hemophilia A
- On Demand: 50%
- Prophylaxis: 50%

Hemophilia B
- On Demand: 60%
- Prophylaxis: 40%

Market Share of Patients on Prophylaxis (U.S.)

- Other EHL (Pegylated)
  - Q2-14: 100%
  - Q2-15: 83%
  - Q2-16: 70%
- Conventional (Short-Acting)
  - Q2-14: 15%
  - Q2-15: 44%
  - Q2-16: 47%
- Other EHL (Albumin Fusion)
  - Q2-14: 15%
  - Q2-15: 44%
  - Q2-16: 47%

Source: Q2 2016 US HTC Market Tracking FVIII and FIX Report
Plans to Expand to New Markets Where Already Approved or Filed

- Launched in the U.S. and Canada
- ELOCTATE and ALPROLIX Approved
- Not-yet-commercialized Territory
- BIVV approved / filings accepted

- Fully integrated operation in Japan with ~80 FTEs
- Elocta and ALPROLIX Approved
- Not-yet-commercialized Territory
ELOCTATE has Delivered Strong Performance and Growth Opportunities Remain

ELOCTATE Revenue ($M)

- Approved for Hem A to reduce frequency of bleeding episodes with prophylactic infusions every 3 to 5 days
- Advantage of more than two years of real-world experience and consistent long-term safety data

**Potential Growth Opportunities**

- Continued shift to EHLs, and shift to prophylaxis
- Expansion into new geographies
- Increased patient access
- Treating women who have the recessive gene for hemophilia

Source: Investor Presentation, Company Website, Form 10
Note: Approved in EU in November 2015 under trade name Elocta®.
Evolution of the Hemophilia A Landscape

**Near Term**
- Competition from other EHL entrants

**Longer Term**
- Advancements in half-life extension technology including BIVV 001
- New MOAs including bispecific antibodies, RNAi therapeutics, gene therapies, etc.

**Inhibitors**
- Bypassing agents, ITI, potential bispecific antibody

- With few next generation therapies on the horizon, there is significant unmet medical need for therapies to treat inhibitor market

---

*Images: Integrated Capabilities, Talented Team, Strong Hemophilia Franchise, Capitalized to Create Value*
ALPROLIX Has Also Delivered Strong Performance and Growth Opportunities Remain

- Approved for Hem B to reduce frequency of bleeding episodes with prophylactic infusions every 7 to 10 days, with potential to extend dosing based on individual response
- Advantage of more than two years of real-world experience and consistent long-term safety data

Potential Growth Opportunities
- Continued shift to prophylaxis due to differentiated efficacy and dosing schedule, and shift to EHLs
- Expansion into new geographies
- Increased patient access
- Treating women who have the recessive gene for hemophilia

Source: Investor Presentation, Company Website, Form 10
Evolution of the Hemophilia B Landscape

Near Term
- Competition from other EHL entrants

Longer Term
- Potential subcutaneous EHLs, including BIVV 002
- New MOAs including gene therapies, RNAi
Financial Overview

John Greene, CFO
Financial Snapshot

**Revenues ($M)**
- 2015 Q1-Q3: $386
- 2016 Q1-Q3: $631

Gross Margin
- 2015 Q1-Q3: 87%
- 2016 Q1-Q3: 79%

**Operating Income ($M)**
- 2015 Q1-Q3: $32
- 2016 Q1-Q3: $238

Operating Margin
- 2015 Q1-Q3: 8%
- 2016 Q1-Q3: 38%

**Net Income ($M)**
- 2015 Q1-Q3: $36
- 2016 Q1-Q3: $148

Tax Rate
- 2015 Q1-Q3: 37.5%
- 2016 Q1-Q3: 37.5%

**Free Cash Flows ($M)**
- 2015 Q1-Q3: $-12
- 2016 Q1-Q3: $203

Cash as % of Net Income
- 2015 Q1-Q3: (33%)
- 2016 Q1-Q3: 137%

Note: 2016 reported with Pro Forma adjustments

Free Cash Flows = Net CFs provided by(used in) operating activities + Net CFs used in investing activities
# 2017 Financial Guidance

<table>
<thead>
<tr>
<th>Guidance</th>
<th>GAAP</th>
<th>Non-GAAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth</td>
<td>17 – 19%</td>
<td>17 – 19%</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>38 – 42%</td>
<td>43 – 47%</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>36 – 38%</td>
<td>36 – 38%</td>
</tr>
</tbody>
</table>

### Opening Balance Sheet

<table>
<thead>
<tr>
<th>(In millions)</th>
<th>Pro Forma as of Sept 30, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total current assets</td>
<td>$575.5</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$325.0</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>$126.8</td>
</tr>
<tr>
<td>Inventory</td>
<td>$113.6</td>
</tr>
<tr>
<td>Other current assets</td>
<td>$10.1</td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>$79.6</td>
</tr>
<tr>
<td>Net Working Capital</td>
<td>$495.9</td>
</tr>
</tbody>
</table>

Guidance as of January 6, 2017

Non-GAAP outlook excludes: One time separation and set up costs, equity based compensation and amortization of intangible assets. These items impact operating margin. The GAAP to Non-GAAP reconciliation of these items is included in the Appendix. Our guidance does not include the impact of potential business development.

* No adjustment.
Closing

John Cox, CEO
Our Commitment to the Hemophilia Community

### Humanitarian Aid Reaching Patients Worldwide

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>178 M IUs of clotting factor donated</td>
<td>4,200 People treated in 38 countries</td>
</tr>
<tr>
<td>4,600+ Acute bleeds</td>
<td>300+ Surgeries, 30 life-saving</td>
</tr>
</tbody>
</table>

Percentage of pediatric patients receiving treatment in these countries has nearly doubled (from 14% to 28%)
Bioverativ

A Unique and Compelling Investment Opportunity

Integrated capabilities
Talented team
Strong Hemophilia Franchise
Capitalized to create value
Appendix
# Income Statement

<table>
<thead>
<tr>
<th></th>
<th>2015 Full year</th>
<th>2015 Nine months end Sept 30</th>
<th>2016 Nine months end Sept 30</th>
<th>Adjust</th>
<th>2016 Pro Forma Nine months end Sept 30</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product, net</td>
<td>554.1</td>
<td>381.7</td>
<td>604.8</td>
<td>604.8</td>
<td></td>
</tr>
<tr>
<td>Collaboration revenue</td>
<td>6.2</td>
<td>4.4</td>
<td>26.4</td>
<td>26.4</td>
<td></td>
</tr>
<tr>
<td><strong>Total revenues</strong></td>
<td>560.3</td>
<td>386.1</td>
<td>631.2</td>
<td>631.2</td>
<td></td>
</tr>
<tr>
<td><strong>Cost and expenses:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of sales</td>
<td>52.9</td>
<td>50.8</td>
<td>162.2</td>
<td>(30.0)</td>
<td>132.2</td>
</tr>
<tr>
<td>Gross Margin %</td>
<td>91%</td>
<td>87%</td>
<td>79%</td>
<td></td>
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<tr>
<td>Research and development</td>
<td>186.1</td>
<td>135.4</td>
<td>122.6</td>
<td>122.6</td>
<td></td>
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<tr>
<td>% revenues</td>
<td>33%</td>
<td>35%</td>
<td>19%</td>
<td></td>
<td></td>
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<tr>
<td>Selling, general and administrative</td>
<td>223.3</td>
<td>167.7</td>
<td>138.4</td>
<td>138.4</td>
<td></td>
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<tr>
<td>% revenues</td>
<td>40%</td>
<td>43%</td>
<td>22%</td>
<td></td>
<td></td>
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<tr>
<td><strong>Total operating expenses</strong></td>
<td>409.4</td>
<td>303.1</td>
<td>261.0</td>
<td>261.0</td>
<td></td>
</tr>
<tr>
<td><strong>Income from operations</strong></td>
<td>98.0</td>
<td>32.2</td>
<td>208.0</td>
<td>30.0</td>
<td>238.0</td>
</tr>
<tr>
<td>Operating Margin %</td>
<td>17%</td>
<td>8%</td>
<td>38%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other income (expense), net</td>
<td>0.6</td>
<td>0.6</td>
<td>(1.0)</td>
<td>(1.0)</td>
<td></td>
</tr>
<tr>
<td>Income before income tax expense</td>
<td>98.6</td>
<td>32.8</td>
<td>207.0</td>
<td>30.0</td>
<td>237.0</td>
</tr>
<tr>
<td>Income tax (benefit) expense</td>
<td></td>
<td>(3.3)</td>
<td>(3.7)</td>
<td>3.7 B</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>37.0</td>
<td></td>
<td></td>
<td>88.9 C</td>
<td>88.9</td>
</tr>
<tr>
<td><strong>Net income</strong></td>
<td>61.6</td>
<td>36.1</td>
<td>210.7</td>
<td>(62.6)</td>
<td>148.1</td>
</tr>
</tbody>
</table>

A - Elimination of accelerated depreciation associated with Bio 2  
B - Reflects elimination of historical Bioverativ tax benefit  
C - Reflects expected tax expense using an effective income tax rate of 37.5%
GAAP/Non-GAAP reconciliation

Operating margin reconciliation:

<table>
<thead>
<tr>
<th>GAAP operating margin</th>
<th>38 - 42%</th>
</tr>
</thead>
<tbody>
<tr>
<td>One time separation and set up costs</td>
<td>2%</td>
</tr>
<tr>
<td>Equity based compensation</td>
<td>2%</td>
</tr>
<tr>
<td>Amortization of intangibles</td>
<td>1%</td>
</tr>
<tr>
<td>Non-GAAP operating margin</td>
<td>43% - 47%</td>
</tr>
</tbody>
</table>
## Balance Sheet

### ASSETS

<table>
<thead>
<tr>
<th></th>
<th>2015 Full year</th>
<th>2016 Nine months end Sept 30</th>
<th>Adjust</th>
<th>2016 Nine months end Sept 30</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>0.0</td>
<td>325.0 A</td>
<td>325.0</td>
<td></td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>94.4</td>
<td>126.8</td>
<td></td>
<td>126.8</td>
</tr>
<tr>
<td>Inventory</td>
<td>252.1</td>
<td>283.3 (169.7) B</td>
<td>113.6</td>
<td></td>
</tr>
<tr>
<td>Other current assets</td>
<td>4.0</td>
<td>10.3 (0.2) C</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>350.5</td>
<td>420.4 (155.1)</td>
<td>575.5</td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment, net</td>
<td>75.5</td>
<td>45.0 (26.9) C</td>
<td>18.1</td>
<td></td>
</tr>
<tr>
<td>Intangible assets, net</td>
<td>30.0</td>
<td>53.1</td>
<td></td>
<td>53.1</td>
</tr>
<tr>
<td>Other long-term assets</td>
<td>19.6</td>
<td>22.4</td>
<td></td>
<td>22.4</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>475.6</td>
<td>540.9 128.2</td>
<td>669.1</td>
<td></td>
</tr>
</tbody>
</table>

### LIABILITIES AND EQUITY

<table>
<thead>
<tr>
<th></th>
<th>2015 Full year</th>
<th>2016 Nine months end Sept 30</th>
<th>Adjust</th>
<th>2016 Nine months end Sept 30</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current liabilities:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>10.8</td>
<td>12.3</td>
<td></td>
<td>12.3</td>
</tr>
<tr>
<td>Accrued expenses and other current liabilities</td>
<td>49.4</td>
<td>68.9 (1.6) C</td>
<td>67.3</td>
<td></td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td>60.2</td>
<td>81.2 (1.6)</td>
<td>79.6</td>
<td></td>
</tr>
<tr>
<td>Long-term liabilities</td>
<td>30.7</td>
<td>53.8</td>
<td></td>
<td>53.8</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>90.9</td>
<td>135.0 (1.6)</td>
<td>133.4</td>
<td></td>
</tr>
<tr>
<td>Commitments and contingencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equity:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net parent company investment</td>
<td>384.4</td>
<td>401.6 129.8</td>
<td>531.4</td>
<td></td>
</tr>
<tr>
<td>Accumulated other comprehensive loss</td>
<td>0.3</td>
<td>4.3</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td><strong>Total equity</strong></td>
<td>384.7</td>
<td>405.9 129.8</td>
<td>535.7</td>
<td></td>
</tr>
<tr>
<td><strong>Total liabilities and equity</strong></td>
<td>475.6</td>
<td>540.9 128.2</td>
<td>669.1</td>
<td></td>
</tr>
</tbody>
</table>

### Working Capital

- **2015 Full year:** 290.3
- **2016 Nine months end Sept 30:** 495.9

---

A - Initial cash contribution from Biogen to Bioverativ

B - Drug substance (raw material and work-in progress inventory) retained by Biogen

C - Biogen manufacturing facility, related assets and liabilities that will not transfer to Bioverativ
Sobi Collaboration

• For the years ended December 31, 2015, 2014 and 2013, the royalty payable to Sobi based upon sales in the company’s territory was 2%. Upon Sobi’s first commercial sale in 2016, and during the Reimbursement period, the royalty rate the company will pay Sobi on sales of ELOCTATE and ALPROLIX in our territory is 7%. After the Reimbursement period concludes, the royalty rate we pay to Sobi increases to 12%. We are recording cost of sales at the effective royalty rate expected over the term of the agreement of approximately 11%.

• The royalty rate received by the company, during the Reimbursement period on sales of ELOCTATE and ALPROLIX in Sobi’s territory is 17%. After the Reimbursement period concludes, the royalty we receive decreases to 12%. We are recording revenue at the effective royalty rate expected over the term of the agreement of approximately 14%.

<table>
<thead>
<tr>
<th>Royalty and Net Revenue Share Rates:</th>
<th>Method</th>
<th>Base Rate following 1st commercial sale in the Sobi Territory:</th>
<th>Rate during the Reimbursement Period:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sobi rate to Biogen on net sales in the Sobi Territory</td>
<td>Royalty</td>
<td>12%</td>
<td>Base Rate plus 5%</td>
</tr>
<tr>
<td>Biogen rate to Sobi on net sales in the Biogen North America Territory</td>
<td>Royalty</td>
<td>12%</td>
<td>Base Rate less 5%</td>
</tr>
<tr>
<td>Biogen rate to Sobi on net sales in the Biogen Direct Territory</td>
<td>Royalty</td>
<td>17%</td>
<td>Base Rate less 5%</td>
</tr>
<tr>
<td>Biogen rate to Sobi on net revenue from the Biogen Distributor Territory</td>
<td>Net Revenue Share</td>
<td>50%</td>
<td>Base Rate less 15%</td>
</tr>
</tbody>
</table>
Collaboration on San Raffaele’s Lentiviral Platform for Hemophilia A and B

**Technology**
Leverages San Raffaele’s expertise in lentiviral vector development and next-generation lentiviral platform

**Potential Clinical Profile**
Potential to provide single-dose, lasting treatment for Hemophilia A and B patients

**Competitive Positioning**
Persistent gene transfer in most tissues throughout development, addresses FVIII size challenge and may circumvent immunity limitations of AAV vectors utilized in majority of current gene therapy approaches. Lentivirus (self inactivated) Utilizes same 3rd generation Self-Inactivating Lentiviral technology used by the Naldini group to cure kids with WAS and MLD by ex vivo treatment of hematopoietic stem cells, without any signs of insertional oncogenesis

### AAV vs. Lentiviral

<table>
<thead>
<tr>
<th>AAV</th>
<th>Lentiviral</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integration</strong></td>
<td>Safety, persistence</td>
</tr>
<tr>
<td><strong>Cargo capacity &amp; regulation</strong></td>
<td>FVIII delivery, immunogenicity</td>
</tr>
<tr>
<td><strong>Pre-existing anti-vector immunity</strong></td>
<td>Eligibility, clearance, immunogenicity</td>
</tr>
<tr>
<td><strong>Manufacturing &amp; clinical experience</strong></td>
<td>Feasibility, dose escalation, cost</td>
</tr>
<tr>
<td><strong>4.7 kb</strong></td>
<td><strong>10 kb</strong></td>
</tr>
<tr>
<td>Frequent</td>
<td>Rare</td>
</tr>
<tr>
<td>More Advanced</td>
<td>Recent</td>
</tr>
</tbody>
</table>

Confidential and proprietary
Leading Medical Experts in Sickle Cell Disease and a Portfolio of Research Stage Assets

Technology
Small molecule approaches primarily addressing the causative defect leading to the pathophysiology of SCD

Potential Clinical Profile
Goal is to develop disease-modifying therapies to treat significant unmet needs in SCD

Competitive Positioning
Opportunity to nurture a robust discovery pipeline that could make BIVV the only company with a comprehensive approach to addressing SCD
Fragmented competition

Diseased
- Sickling
- Hemolytic anemia
- Sickle crises

Healthy

HbS

αβs

αβs

αγ

αβs

αβs