Precision Vascular Robotics

Corindus Vascular Robotics (CVRS)
September 2016
Forward-Looking Statements

THIS PRESENTATION CONTAINS “FORWARD-LOOKING STATEMENTS” (AS SUCH TERM IS DEFINED IN SECTION 27A OF THE SECURITIES ACT OF 1933, AS AMENDED, AND SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED), AND INFORMATION RELATING TO THE COMPANY, THAT ARE BASED ON THE CURRENT BELIEFS OF, AND ASSUMPTIONS MADE BY OUR MANAGEMENT AND THE INFORMATION CURRENTLY AVAILABLE TO OUR MANAGEMENT. FORWARD-LOOKING STATEMENTS RELATE TO EXPECTATIONS CONCERNING MATTERS THAT ARE NOT HISTORICAL FACTS. WORDS SUCH AS “ANTICIPATE,” “BELIEVE,” “ESTIMATE,” “EXPECT,” “INTEND,” “PLAN,” “PREDICT,” “OPINION,” “WILL” AND SIMILAR EXPRESSIONS AND THEIR VARIANTS, ARE INTENDED TO IDENTIFY FORWARD-LOOKING STATEMENTS. THESE FORWARD-LOOKING STATEMENTS INCLUDE, BUT ARE NOT LIMITED TO STATEMENTS RELATED TO OUR EXPECTED BUSINESS, PRODUCTS, ADOPTION OF ROBOTIC MEDICAL PROCEDURES, RESULTS OF OPERATIONS, FUTURE FINANCIAL CONDITION, ABILITY TO INCREASE OUR REVENUES, AND SIMILAR MATTERS. THESE FORWARD-LOOKING STATEMENTS SHOULD BE CONSIDERED IN LIGHT OF VARIOUS IMPORTANT FACTORS, INCLUDING, WITHOUT LIMITATION, THE RATE OF ADOPTION OF OUR CORPATH SYSTEM AND THE RATE OF USE OF OUR CASSETTES; RISKS ASSOCIATED WITH MARKET ACCEPTANCE, INCLUDING PRICING AND REIMBURSEMENT; OUR ABILITY TO ENFORCE OUR INTELLECTUAL PROPERTY RIGHTS; OUR NEED FOR ADDITIONAL FUNDS TO SUPPORT OUR OPERATIONS; OUR ABILITY TO MANAGE EXPENSES AND CASH FLOW; FACTORS RELATING TO ENGINEERING, REGULATORY, MANUFACTURING, SALES AND CUSTOMER SERVICE CHALLENGES; POTENTIAL SAFETY AND REGULATORY ISSUES THAT COULD SLOW OR SUSPEND OUR SALES; THE EFFECT OF CREDIT, FINANCIAL AND ECONOMIC CONDITIONS ON CAPITAL SPENDING BY OUR POTENTIAL CUSTOMERS; THE IMPACT OF GLOBAL AND REGIONAL ECONOMIC AND CREDIT MARKET CONDITIONS ON HEALTH CARE SPENDING; HEALTH CARE REFORM LEGISLATION IN THE UNITED STATES AND ITS IMPACT ON HOSPITAL SPENDING, REIMBURSEMENT AND FEES WHICH WILL BE LEVIED ON CERTAIN MEDICAL DEVICE REVENUES, DECREASES IN HOSPITAL ADMISSIONS AND ACTIONS BY PAYERS TO LIMIT OR MANAGE SURGICAL PROCEDURES TIMING AND SUCCESS OF PRODUCT DEVELOPMENT AND MARKET ACCEPTANCE OF DEVELOPED PRODUCTS, PROCEDURE COUNTS; REGULATORY APPROVALS, CLEARANCES AND RESTRICTIONS; GUIDELINES AND RECOMMENDATIONS IN THE HEALTH CARE AND PATIENT COMMUNITIES, INTELLECTUAL PROPERTY POSITIONS AND LITIGATION, COMPETITION IN THE MEDICAL DEVICE INDUSTRY AND IN THE SPECIFIC MARKETS OF SURGERY IN WHICH WE OPERATE, THE INABILITY TO MEET DEMAND FOR PRODUCTS, THE RESULTS OF LEGAL PROCEEDINGS TO WHICH WE ARE OR MAY BECOME A PARTY, PRODUCT LIABILITY AND OTHER LITIGATION CLAIMS, ADVERSE PUBLICITY REGARDING OUR COMPANY AND SAFETY OF OUR PRODUCTS AND THE ADEQUACY OF TRAINING; OUR ABILITY TO EXPAND IN FOREIGN MARKETS; AND OTHER RISK FACTORS. READERS ARE CAUTIONED NOT TO PLACE UNDUE RELIANCE ON THESE FORWARD-LOOKING STATEMENTS, WHICH ARE BASED ON CURRENT EXPECTATION AND ARE SUBJECT TO RISKS, UNCERTAINTIES; AND ASSUMPTIONS THAT ARE DIFFICULT TO PREDICT, INCLUDING THOSE RISK FACTORS DESCRIBED IN THE COMPANY’S ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED ON DECEMBER 31, 2015. OUR ACTUAL RESULTS MAY DIFFER MATERIALLY AND ADVERSELY FROM THOSE EXPRESSED IN ANY FORWARD-LOOKING STATEMENTS. WE UNDERTAKE NO OBLIGATION TO PUBLICLY UPDATE OR RELEASE ANY REVISIONS TO THESE FORWARD-LOOKING STATEMENTS EXCEPT AS REQUIRED BY LAW.
Corindus Snapshot
A leader in vascular robotics

LARGE Market Opportunity with Long GROWTH Runway
$4.5B\textsuperscript{1} market opportunity in 2018 driven by over 2.5 million coronary and 3 million non-coronary procedures performed per year

DIFFERENTIATED Technology
ONLY FDA cleared robotic system for percutaneous coronary intervention (“PCI”), radial PCI and peripheral interventions

Proving BENEFIT to Physician, Patient, Hospital
Studies have shown a greater than 95% reduction in radiation exposure for the physician when using CorPath System\textsuperscript{2}

Robust INTELLECTUAL PROPERTY Portfolio
With over 50 patents issued worldwide, Corindus has ring-fenced patents around co-axial robotic movement

\textsuperscript{1} Market opportunity assessment based on market research reports and Corindus estimate
## Traditional PCI vs CorPath Robotic PCI

Robotic precision may improve outcomes, economics and safety.

### Today’s Cath Lab Environment
- High radiation exposure
- Significant fatigue and orthopedic strain

### Robotic Cath Lab
- Shields from radiation
- Potential to reduce fatigue and orthopedic strain

### Manual PCI vs Robotic-assisted PCI

<table>
<thead>
<tr>
<th>Manual PCI</th>
<th>PCI steps</th>
<th>Robotic-assisted PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Struggle to see angiography</td>
<td>Assess Anatomy</td>
<td>Close proximity ergonomic visualization</td>
</tr>
<tr>
<td>Trial &amp; error, wire spinning</td>
<td>Navigate</td>
<td>Precise ‘Point &amp; Shoot’ predictability</td>
</tr>
<tr>
<td>‘Eyeball’ estimate</td>
<td>Measure Anatomy</td>
<td>Robotic-assisted sub-mm Measurement</td>
</tr>
<tr>
<td>Manual adjustment</td>
<td>Position Stent</td>
<td>1mm precise positioning</td>
</tr>
<tr>
<td>Devices loose during inflation</td>
<td>Deploy Stent</td>
<td>Fixated devices during deployment</td>
</tr>
</tbody>
</table>

- **Traditional PCI** steps include struggling to see angiography, trial and error with wire spinning, ‘eyeball’ estimation, manual adjustments, and devices being loose during inflation.
- **Robotic-assisted PCI** offers close proximity ergonomic visualization, precise ‘Point & Shoot’ predictability, robotic-assisted sub-mm measurement, 1mm precise positioning, and fixated devices during deployment.

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*Corindus Vascular Robotics*
New Leadership & Strengthening Team
Building operational & clinical excellence

Mark Toland
President & CEO
20 Year Medical Device Veteran

J. Aaron Grantham, MD
Chief Medical Officer
Practicing Interventional Cardiologist

Marty Leon, MD
Executive Advisor
Interventional Cardiology Thought Leader

Campbell Rogers, MD
Board of Directors
CMO of Heartflow

• Additional leadership hires:
  − R&D
  − Operations
  − Sales
  − Worldwide Strategic Development
  − Human Resources
# Corindus Strategic Imperatives

## Platform for growth

<table>
<thead>
<tr>
<th></th>
<th>Strengthen execution to increase adoption</th>
<th></th>
</tr>
</thead>
</table>
| 1 | • Narrow focus to develop deeply integrated programs  
     • Culture of accountability  
     • Align incentives with operational performance |   |
| 2 | Fuel physician community of support |   |
| 3 | Invest in technology roadmap |   |
| 4 | Expand into high growth disease segments |   |
| 5 | Drive global expansion |   |
|   | • Next-gen investments – on time and under budget  
     • Partner collaboratively to incorporate clinician and hospital feedback  
     • Alliances & partnerships |   |
|   | • Establish radial PCI and peripheral footprint  
     • Tie into industry product launches  
     • Explore structural heart and neurovascular |   |
|   | • US – focus on establishing deep relationships  
     • China, Japan, Middle East and EU |   |
CorPath System Platform
Designed for expansion

Open architecture
- Device agnostic
- Any imaging system

Expanding clinical usage
- Simple → Complex PCI
- Radial PCI – FDA Cleared
- Peripheral – FDA Cleared
- Neuro – Exploratory
- Structural Heart – Exploratory

Opportunities for integration
- FFR
- AHERECTOMY
- IVUS
- OCT
Market Opportunity
Large & growing worldwide market

- $4.5B FY2018 market estimate
- Non-PCI procedure types: Peripheral Vascular\(^2\), Neurointerventional and Structural Heart
- 2018 estimated PCI procedure volume:\(^3\):
  - 933,000 in the US
  - 1,800,000 OUS
- 2018 estimated non-PCI procedure volume:\(^3\):
  - 1,200,000 in the US
  - 1,800,000 OUS

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\(^1\) Market opportunity assessment based on market research reports and Corindus estimate
\(^2\) Peripheral Vascular includes lower limb, carotid, renal, iliac and AAA (abdominal aortic aneurysm) procedures
\(^3\) Millennium Research Group
Expanding Market Opportunity
Extensive runway

**Coronary**
- Pre-2016
  - FDA 510(k) clearance for PCI
  - FDA 510(k) clearance for radial PCI
  - CE Mark

**Peripheral**
- March 2016
  - FDA 510(k) clearance for use in peripheral vascular

**Neuro**
- Exploring the neurovascular and structural heart space with thought leaders to assess the applicability of robotics and potential for CorPath

**Structural**

Expanded indications and capabilities
Growing Clinical Evidence

**Benefit to Physicians/Staff**

95% Reduction in Radiation Exposure

**Benefit to Patient**

Trial Showed Lower Patient Radiation

**Benefit to Financials**

Trial Showed Reduction in Stent Usage

**Benefit to Complex Cases**

Trial Showed Comparable Time R-PCI vs M-PCI

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**Occupational Risks in the Cath Lab**

**Escalating awareness of hazards**

- Brain tumors
  - Reported brain tumors are predominantly left-sided amongst interventionalists
- Orthopedic injuries
  - 60% incidence of spine problems after 21 years in practice
- 42% incidence of spine problems, general population average rate: 2.3%
- 35% miss work due to orthopedic issues
- Cath defects
  - 50% have significant patient suboptimal lesion changes

**PRECISE Study shows CorPath enables 95.3% reduction in radiation exposure**

**Robotics Showed Lower Patient Radiation**

JIC published single center trial, New York Presbyterian

- **Study Design**
  - Single center trial
  - Includes all 40 patients enrolled in PRECISE trial
  - 80 consecutive patients who underwent conventional PCI

**Evidence of Success in Complex PCI**

- **Robotics Manual PCI Procedure Time (in min)**
  - 95.07

**Comparative Analysis**

- **Manual PCI Procedure Time (in min)**
  - 121.43

**Conclusion**

- R-PCI is safe and feasible in patients with complex coronary disease.
- Procedure time for R-PCI was comparable to M-PCI.
- Patients in R-PCI group were more likely to have type B2 or C lesions (78% vs. 69%, p=0.02)
- R-PCI is safe and feasible in patients with complex coronary disease.
Occupational Risks in the Cath Lab

Escalating awareness of hazards

- **Brain tumors**
  - Reported brain tumors are predominately left-sided amongst interventionalists

- **Orthopedic injuries**
  - 60% incidence of spine issues after 21 years in practice
  - 42% incidence of spine problems, general population average rate - 2.3%
  - 33% miss work due to orthopedic issues

- **Cataracts**
  - 50% have significant posterior subcapsular lens changes

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1 Roguin A. Radiation hazards to interventional cardiologists: A report on increased brain tumors among physicians working in the cath lab. SOLACI 2014; April 23, 2014; Buenos Aires, Argentina.

2 Gregory Dehmer et al., Occupational Hazards for Interventional Cardiologists, The Society for Cardiovascular Angiography and Interventions, 68 Catheterization and Cardiovascular Interventions 974, 975 (2006), http://www.scai.org/asset.axd?id=c01541b7-66c2-46a4-940e-e2a55e71e50c31-63394f866505100000


Robotics Showed Lower Patient Radiation
JIC published single center trial, New York Presbyterian

• Study Design
  – Single center trial
  – Includes all 40 patients enrolled in PRECISE trial
  – 80 consecutive patients who underwent conventional PCI and met the same study inclusion criteria

<table>
<thead>
<tr>
<th>Procedural Characteristics</th>
<th>Manual PCI N=80</th>
<th>Robotic PCI N=40</th>
<th>Percent Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contrast Media Volume, ml</td>
<td>137±62</td>
<td>121±47</td>
<td>12%</td>
</tr>
<tr>
<td>Fluoro Time, min</td>
<td>12.3±7.6</td>
<td>10.1±4.7</td>
<td>18%</td>
</tr>
<tr>
<td>Radiation Dose, mGy</td>
<td>1665±1026</td>
<td>1389±599</td>
<td>17%</td>
</tr>
</tbody>
</table>

“These benefits ... can be attributed to improved visualization, easy wire and catheter manipulation and precise balloon and stent positioning that are enhanced by the robotic system”

Robotics Showed Reduction in Stent Use
8.3% stent reduction\(^1\)

- We know challenging visual estimation leads to excess stenting
- Manual assessment of lesion length significantly less accurate\(^2\)
- Treatment plan changed from two stents to one in 5 of 60 cases
- PRECISE trial also reported a reduced number of stents\(^3\)


\(^3\) PRECISE cases averaged 1.1 stents per lesion vs. national average of 1.2 stents per lesion, PRECISE data compared to historical control (Nikolsky et al.)
Evidence of Success in Complex PCI

CORA-PCI Trial


Methods:

- 334 procedures – 108 R-PCI and 226 M-PCI
- Patients in R-PCI group were more likely to have type B2 or C lesions (78% vs. 69%, p=0.02)

Results:

- R-PCI is safe and feasible in patients with complex coronary disease, 108 procedures; 91.7% technical success, 99.1% clinical success
- In the high complexity group, procedure time for R-PCI was comparable to M-PCI
Evolution of Clinical Strategy
Clinician driven deliverables through CMO feedback loop

**Strategic Shift**
- FDA clearance of NG2 (GRX)
- Clinical Steering Committee
- Technology deep dives with R&D
- VP of Medical Affairs
- Build clinical roadmap

**2016**
- Gen 3 development underway
- Clinical roadmap outlined
- Medical education strategy established and in execution mode

**Develop**

**2017**

**Leverage**
- Future generation product development
- Global expansion
- Broader indications
- Algorithmic approach to robotics

**2018**
- WW Launch of NG3
- 1st ever remote cases performed
- Robotic “live” cases at major medical conferences
- Outcomes data grows

**Scale**

**2019**
Vascular Robotic Clinical Roadmap
Demonstrating excellence in multiple lesion types and anatomies

Product Evolution

Expanded use
- Left Main Intervention
- Complex PCI & CTO
- Ostial Lesion
- Absorb
- Staff Radiation Protection
- Outcomes
- Remote PCI

Feasibility
- Below the Knee
- Ostial Stenting
- Atherectomy
- Drug Eluting Balloons

Exploratory
- Exploratory Work

Expanded use
- PCI
- NEURO
Addressing Healthcare Challenges
Paradigm shift towards the “How” not the “What”

- Safer Work Environment
- Improve Efficiency
- Expand Access To Care
- Reduce Cost
- Enhance Quality
Cardiovascular Robotics
Foundation to the future

Advanced Device Manipulation

Algorithmic Decision Making

Image/DX Integration

Remote Telehealth

Auto Navigation
Technology Roadmap

Strategy

1st Commercial
- PCI fundamental
- Wire and stent manipulation

Today
CorPath 200

CorPath GRX

Build Programs
- 50% PCI penetration
- More device control
- Enhanced workflow
- Alliances and partnerships

2017

Robotic Adoption
- Target 80% of cases
- Procedure speed
- Enhanced user experience
- Algorithmic approach

2019
NG 3

>2020

Standard of Care
- Target > 80% of cases
- Remote teleprocedural control
- Optimized to specific patient
Enhanced Commercial Approach

Nuances of market success

**COMPLEXITY**
- Long selling cycle
- Multiple decision makers
- Physician influence declining

**Approach**
- Sales model diversity
- Training & development
- KOL focus

**PROGRAMS**
- Team approach
- Workflow change (as much as procedural change)
- Commitment = Learning curve

**Approach**
- Deep CCL experience
- Aligned incentives
- 1:1 rep to clinical

**CONSOLIDATION**
- IDN size and strength increasing
- C-Suite decision makers
- Capital spending scrutiny high

**Approach**
- Targeting
- Medical education
- Strategic positions
Building Centers of Excellence
Driving strategic placements

Commercial Focus on Developing New Programs and Growing Adoption

- **Team Approach** (Physicians, techs, nurses and administration)
- **Commitment to Building a Program**
- **Ongoing Training** (Basic, intermediate and advanced)
- **Adequate Procedural Volume** (Support multiple users)
## Financial Snapshots

**Corindus Vascular Robotics**

### Key Financial Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash, Cash Equivalents and Marketable Securities</td>
<td>$26.4 million</td>
</tr>
<tr>
<td>Debt</td>
<td>$5.9 million</td>
</tr>
<tr>
<td>Basic Shares Outstanding</td>
<td>119,049,519</td>
</tr>
</tbody>
</table>

### Guidance

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Revenue</td>
<td>$4 - $5 million</td>
</tr>
</tbody>
</table>

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1 As of June 30, 2016
2 Outstanding principal balance
Strategic Objectives
Corindus Vascular Robotics

**Near-Term (2H 16)**
- Establish 6-9 robotic programs
- Pursue co-development opportunities, add at least one additional collaboration

**Mid-Term (1H 17 – 1H 18)**
- Ramp robotic programs and utilization
- Gen 2 system – launch ready in 1H 2017
- More than double 2016 revenues

**Long-Term (2H 18 – 1H 19)**
- Realize vision through recurring revenue streams & NG3 system launched
- Expand into additional disease states (neurovascular and structural heart)
- Global expansion and remote teleproctoring
About Corindus Vascular Robotics

Corindus Vascular Robotics, Inc. is a global technology leader in robotic-assisted vascular interventions. The company's CorPath® System is the first FDA-cleared medical device to bring robotic-assisted precision to percutaneous coronary intervention and peripheral vascular intervention. With the CorPath System, Corindus Vascular Robotics brings robotic precision to radial and complex interventional procedures to help optimize clinical outcomes and minimize the costs associated with complications of improper stent placement with manual procedures.

Visit us at www.corindus.com