WINNING THE BATTLE AGAINST SEPSIS

The first theranostic: EAA™ & Toraymyxin™ (PMX)

SPECTRAL Medical
Certain statements contained in this presentation constitute forward-looking information within the meaning of securities laws. Forward-looking information may relate to our future outlook and anticipated events or results and may include statements regarding our future financial position, business strategy, budgets, litigation, projected costs, capital expenditures, financial results, taxes and plans and objectives. In some cases, forward-looking information can be identified by terms such as “may”, “will”, “should”, “expect”, “plan”, “anticipate”, “believe”, “intend”, “estimate”, “predict”, “potential”, “continue” or other similar expressions concerning matters that are not historical facts. These statements are based on certain factors and assumptions regarding, among other things, expected growth, results of operations, performance, and business prospects and opportunities. While we consider these assumptions to be reasonable based on information currently available to us, they may prove to be incorrect. Forward looking-information is also subject to certain factors, including risks and uncertainties that could cause actual results to differ materially from what we currently expect. These factors include, among other things, the availability of funds and resources to pursue development projects, the successful and timely completion of clinical studies, and the ability to take advantage of business opportunities, the granting of necessary approvals by regulatory authorities, and general economic, market and business conditions. For more exhaustive information on these risks and uncertainties you should refer to our most recently filed Annual Information Form which is available at www.sedar.com. Forward-looking information contained in this presentation is based on our current estimates, expectations and projections, which we believe are reasonable as of the current date. You should not place undue importance on forward-looking information and should not rely upon this information as of any other date. While we may elect to, we are under no obligation and do not undertake to update this information at any particular time.
Spectral Investment Highlights

1. Spectral is committed to commercializing a treatment for endotoxemic septic shock patients comprised of proprietary components (diagnostic and therapeutic) in the US Market
   - Septic shock is a leading cause of death in US ICUs and a leading contributor to healthcare costs
   - Currently no FDA approved solution in the market
   - Spectral Management has leading global sepsis expertise

2. Spectral’s addressable US market is $1.5B
   - Across 7 major markets (US, Japan, Germany, Italy, Spain, France and UK), the sepsis and septic shock space expected to grow to ~US$6B (source: GlobalData)
   - Spectral has no competitor

3. De-risked Phase III FDA Trial - Spectral is running an Open Label confirmatory trial for the PMX cartridge
   - PMX demonstrated clinical benefit in prior studies and commercial success in Europe and Japan
   - Target patient group faces >40% mortality rate with limited treatment options
   - PMA submission modules 1-3 were reviewed by FDA
   - Interim data analysis

4. Spectral transitioning into a diversified medical device company - Dialco subsidiary
   - Commercialize their Proprietary CRRT machine (SAMI)
   - Getting regulatory approval for DIMI (home dialysis version of SAMI). SAMI is already revenue generating and it’s launch will continue 2019
Spectral’s Targeted Therapy for Septic Shock
Addressable US Market Size ~ US$1.5B

>40% Mortality & Limited Therapeutic Options

**SEPSIS**
- 20% mortality
- 1.7M patients with sepsis

**SEPTIC SHOCK**
- > 40% mortality
- 330K patients in septic shock

**SPECTRAL TARGET MARKET**
- > 40% mortality
- $1.5B+ market
  - 100-120K patients with multiple organ dysfunction and high level of EAA
  - $15-30K per EAA+PMX treatment price models

Sources:
1. Sepsis numbers from CDC
2. Septic data from NIS database 2013
3. Guidelines from surviving sepsis campaign 2016
Measuring & Treating Endotoxemic Septic Shock

1. EAA™
   A Diagnostic to Measure Endotoxin Activity
   A predictor of ICU mortality in septic patients.
   Sold globally.
   Evidence of utility in thousands of patients.

2. PMX has Proven Efficacy: to Remove Endotoxin
   Polymyxin B coated fibers, bench test results - each cartridge can remove up to 20 µg of endotoxin.

3. Clinical Body of Evidence
   More than 300 peer reviewed papers reporting on more than 10,000 patients.
   More than 170,000 treatments around the world, less than 0.1% rate of SAE

4. The EUPHRATES Trial
   Post-Hoc analysis demonstrated reduced mortality at 28 days in key subgroup.

5. A Clear Registration Pathway for PMX
   The Tigris trial, designed to build on the Euphrates generated body of evidence has been reviewed and approved by the FDA.
PMX Endotoxin Removal Cartridge: Real World Clinical Evidence

- Regulatory acceptance in Japan, Europe, Canada and many other countries
- >300 published papers
- Approx. 10,000 patients entered into trials
- 170,000+ patients treated worldwide
- 20+ years of proven safety profile worldwide
- Results from Spectral’s recently completed EUPHRATES trial, have been published in JAMA and Intensive Care Medicine
Lessons Learned From the EUPHRATES Trial

- While the top line data did not demonstrate a mortality benefit, it did show a trend for cardiovascular improvements in the PMX group.

- The post-hoc analysis identified a subset of patients who benefitted from the PMX treatments.

- When strict patient selection criteria are applied, including high severity of illness (MOD score > 9) and an endotoxin activity level as measured by EAA between 0.6 and 0.89, PMX use compared to sham is associated with a 29% relative risk reduction in mortality at 28 days.

The Basis For Going Forward

• EUPHRATES data base considered robust and therefore results are solid (FDA, JAMA, ICM)

• Results show that there is a population that responds to treatment showing a clinically significant reduction in 28 day mortality

• FDA has approved trial for this population of patients Tigris will be run in 10 sites familiar with the EAA and PMX targeted approach, from the EUPHRATES trial

• The trial enrollment time is anticipated to be 18 months

• There are no other large sponsored sepsis trial in the US at this time so that there is no competition for patients

• PMA approval gives 7-10 years of market exclusivity in the US
1) Trial Design agreed upon with the FDA: US sites only, randomized (2:1), Open Label trial

2) Prior population consists of 179 patients from US sites in EUPHRATES (target weight* 75%)

3) 150 new patients to be added from the TIGRIS trial

EUPHRATES Evidence [TIGRIS Prior]:
US patients with MOD>9 and EAA 0.6-0.9:
• N= 90 PMX with 38% mortality
• N= 89 controls with 48% mortality

TIGRIS New Patients
• 100 PMX
• 50 controls
• Same inclusion and exclusion criteria, same sites

TIGRIS: Bayesian trial designed to show:
• Minimum 10% difference in mortality

*Statistical analysis plan not finalized, prior weight may change
PMX Saves Lives… Significant Mortality Benefits

Figure 2: Kaplan-Meier estimates of the probability of survival to day 28 among 76 ITT subjects with above median EAA reduction, by treatment groups.

<table>
<thead>
<tr>
<th>Mortality Status</th>
<th>ACTIVE (N=35)</th>
<th>SHAM (N=41)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alive</td>
<td>30 (85.7)</td>
<td>25 (61.0)</td>
<td>0.01622</td>
</tr>
<tr>
<td>Dead</td>
<td>5 (14.3)</td>
<td>16 (39.0)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Mortality status at day 28 with above median reduction, by treatment groups among 76 randomized subjects.
Next 2 Years of Milestones: PMX/EAA Path

Q1 2019
Beginning of TIGRIS
Finalized protocol
March 24, 2019

Q2 2019
Site selection and contract negotiation

Q3-4 2019
5-10 sites actively enrolling patients
Five sites had SIV
September 20th 2019

2020
TIGRIS completion

2021
FDA Submission
With approval - PMX launch
Dialco Medical Inc.
Wholly owned subsidiary of Spectral Medical
Investment Highlights for Dialco Medical

1. **Growing niches within the $10B dialysis market** with a potential market in excess of $1B US for Acute (CRRT) and Home (HHD) dialysis with the advantage of being the second on the market in the United States and Canada.

2. **Disruptive Product Concept:**
   Spectral’s SAMI CRRT machine is an innovative platform designed to remove any source of operational complexity from dialysis treatments.

3. **Value Drivers**
   CRRT version is market ready. The home dialysis version is CE marked. Beta testers from major academic centers in US and Canada are beginning a product evaluation, with enthusiastic feedback from the training sessions.
Dialco: Mission & Vision

Dialysis Feasible As Never Before

1. Disrupting CRRT (Continuous Renal Replacement Therapy) by removing operational complexity and thereby increasing its adoption

2. Life changing for chronic dialysis patients: they will be empowered to take control of their life through a simple, safe and affordable home hemodialysis machine
CRRT and Home Hemodialysis

1. FDA Cleared Acute Dialysis (CRRT) in Hospital
   Removing complexity and increasing its adoption. Second in the market in Canada, cost effective alternative in US. Revenue generating since year 1.

2. Enhancement of In-hospital Applications
   Open platform for hemoperfusion. Organ protection in organ donors. Out of center – Hospital Dialysis. $0.5M sales in 2019

3. Regulatory Path for Home Dialysis
   510k and Health Canada submissions will be based on the already cleared CRRT version. CE mark already obtained. More than 100 dialysis sessions already performed.

4. Adapts the Treatment ...
   ...according to the patient’s need. With a machine that keeps the home patient connected with doctor and nurses.

5. Enhancing Home Dialysis Adoptions
   Empowering them to take control of their life through a simple, safe and affordable home hemodialysis.
Dialco Medical Milestones - Update

Q1 2019
✓ SAMI Marketing material
✓ SAMI first training and installation

Q2 2019
✓ First use in Human subject SAMI
✓ Dialco's Website and social media presence
✓ SAMI First sale

Q3 2019
✓ 510k & Health Canada application preparation for DIMI

Q4 2019
✓ 510k & Health Canada application submission for DIMI
✓ Participation in RFPs (Request for Proposal) in Canada with SAMI

2020
✓ HC & 510K Approval DIMI
✓ DIMI Launch
Summary

1. **Large Market Opportunity**
   - CRRT Market in US $200M growing 10% per year. Baxter and NxStage in US, Baxter alone in Canada
   - HHD $500M increasing 14% per year - NxStage sole competitor
   - 12 years of IP protection and 20+ years of exclusive license

2. **Value Drivers**
   - Disruptive technology
   - Robust patents coverage till 2031
   - FDA & HC approval for the CRRT model

3. **Revenue Generation for CRRT in 2019 and HHD in 2020**
   - Active negotiation in 3 centers in US and Canada. First customer training completed in April
   - Sales in excess of $500K in 2019
   - All key elements for DIMI’S 510k application ready to go
Spectral Medical Inc.
Corporate Highlights
Spectral has significant depth of experience in product development, regulatory successes and clinical trials

Large addressable end markets provide significant potential upside/reward for Spectral shareholders

Near term inflection points for both PMX and Dialco pathways

Potential for partnering for both products... global medical/pharma companies recognize/acknowledge Spectral’s targeted markets are high growth

Financial requirements to complete reasonable
Spectral Opportunity

• There are 1.7 Million patients each year in the US diagnosed with sepsis

• There are 330K patients who are expected to develop sepsis shock

• There are 120K patient in the US each year that fit the Tigris/EUPHRATES patient population

• There are not expected to be any competing therapeutic devices for 7 years

• PMX will be premium priced (gross margins anticipated at over 70%)

• ~1.5 Billion USD opportunity

• Secondary endpoint support the pharmaco-economics of the treatment

• Target market penetration of 35% through distribution partnership

Sources:
1. Sepsis numbers from CDC
2. Septic data from NIS database 2013
3. Guidelines from surviving sepsis campaign 2016

<table>
<thead>
<tr>
<th>Illustrative US Market Penetration (%)</th>
<th>15%</th>
<th>25%</th>
<th>35%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Patients</td>
<td>15,000</td>
<td>25,000</td>
<td>35,000</td>
</tr>
<tr>
<td>No. PMX Columns</td>
<td>30,000</td>
<td>50,000</td>
<td>70,000</td>
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<tr>
<td>Spectral Revenue Potential¹</td>
<td>$116M</td>
<td>$194M</td>
<td>$271M</td>
</tr>
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</table>

¹. Assumes 50% transfer price with distribution partner and USD$7,500 per PMX column.
Dialco – Path to Unlocking Shareholder Value

Targeted Revenue: USD$700 million\(^+\)
- Recurring Revenue model – Disposables/Solutions/Services
- Momentum in US... Presidential Order\(^1\) to increase home dialysis to 80%

Multiple Partnership opportunities
- Financial partner and vertical integration with OEM;
- Dialysis manufacturer;
- Dialysis provider;
- Logistic company

Evaluating value maximization alternatives
- Milestone driven
- Potential alternatives include: spin-off, IPO/RTO carve, sale, etc.

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\(^1\) On July 10, 2019, President Trump signed an Executive Order to encourage in-home dialysis.
# Company Highlights

<table>
<thead>
<tr>
<th><strong>TSX: EDT</strong></th>
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<tbody>
<tr>
<td>Established</td>
<td>1991</td>
</tr>
<tr>
<td>Number of employees</td>
<td>25</td>
</tr>
<tr>
<td>Offices &amp; Facilities</td>
<td>Toronto, Canada</td>
</tr>
<tr>
<td>Recent Share Price</td>
<td>$0.37</td>
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<tr>
<td>Shares Outstanding</td>
<td>225M</td>
</tr>
<tr>
<td>Market Capitalization</td>
<td>~ $85 M</td>
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<tr>
<td>Insider Ownership</td>
<td>~ 40% (Toray – 20%; Birch Hill Equity Partners – 16%)</td>
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<tr>
<td>Cash &amp; Cash Equivalents</td>
<td>$3.8 M estimated (June 30, 2019)</td>
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<tr>
<td>Total Debt</td>
<td>Nil</td>
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Capitalization

<table>
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<tr>
<th>No. Outstanding</th>
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<tbody>
<tr>
<td>Common Shares</td>
<td>225,816,183</td>
</tr>
<tr>
<td>Options[^1]</td>
<td>9,279,752</td>
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<tr>
<td>Warrants[^2]</td>
<td>8,622,331</td>
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<tr>
<td>F.D. Shares Outstanding</td>
<td>243,718,266</td>
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<tr>
<td>Cash</td>
<td>3,800,000</td>
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<tr>
<td>Debt</td>
<td>-</td>
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</table>

[^1]: weighted average exercise price of $0.42
[^2]: exercise price of $0.45; expiry date April 20, 2021
## Senior Management

**Paul Walker, M.D., Ph.D., F.R.C.S.C**  
Director, President & Chief Executive Officer

- Dr. Walker joined Spectral as President and CEO in April 2001. Prior to that, he held the position of COO of the Toronto General Hospital, and was Surgeon in Chief and Vice President of the Surgical Directorate of the University Hospital Network. Dr. Walker was an active Vascular Surgeon and the Director of the Intensive Care Program, and Professor of Medicine at the University of Toronto. As CEO of Spectral, Dr. Walker lead the transformation of Spectral from a diagnostic company to a leading theragnostics company focused on bringing unique commercial products to market that fill unmet medical needs.
- A pioneer in the area of endotoxin and its role in sepsis, and the co-inventor of the Endotoxin Activity Assay (EAA™), Dr. Walker is a frequent participant at leading sepsis and critical care conferences, has been a keynote speaker at symposiums focusing on the role of endotoxin in sepsis, and is the author of over 100 scientific publications.
- He received his M.D. from the University of Western Ontario, his Ph.D. from the Salgrenska University of Göteborg, Sweden, and is a graduate of the Advanced Management Program from Harvard School of Business.

**Chris Seto**  
Chief Financial Officer

- Mr. Seto is the Chief Financial Officer of Spectral Medical. In his role, he oversees the financial management of the company including, finance, accounting, treasury and capital market financings as well as corporate planning/development and investor relations. Prior to joining Spectral Medical, Chris was the CFO of MJardin Group Inc. (CSE:MJAR) and GrowForce Holdings Inc. Additionally, Chris has over 20 years of capital markets and financial management experience, including senior investment banking positions with Paradigm Capital, UBS Securities and CIBC World Markets; and financial management experience in the telecom and healthcare industries with Bell Canada and Warren Shepell.
- Chris holds a B. Comm. from McMaster University, an MBA from Richard Ivey School of Business, and a Certified Management Accountant designation (C.M.A. 1999).

**Dr. Gualtiero Guadagni, Ph.D**  
President, Dialco Medical Inc.

- Dr. Guadagni is President of Dialco Medical Inc., Spectral’s wholly owned subsidiary in the space of renal replacement therapies. Within Spectral, Dr Guadagni is responsible for the development and expansion of commercial opportunities for Toraymyxin and Spectral’s EAA™ in Canada, the United States and Europe as well as for the company’s R&D and Manufacturing operations.
- Dr. Guadagni has more than 20 years of extensive experience in products and markets development of medical devices for extracorporeal circulation. Prior to joining Spectral in 2013, Dr. Guadagni spent 10 years at ESTOR S.P.A (Milan-based company specialized in the production, promotion and sale of advanced biomedical devices in the areas of dialysis, intensive care and hemodynamics) where he was the company’s sales and marketing director, and member of the Board of Directors.
- Dr. Guadagni has a PhD in bioengineering and a master’s degree in mechanical engineering, both from Politecnico di Milano University in Italy.

**Debra M. Foster, BSc.**  
Vice President, Clinical Development

- Ms. Foster brings more than 20 years of experience to the Spectral team, and is responsible for the clinical evaluation as needed for design validation of Spectral devices. Additionally, she oversees the company’s Regulatory and Quality Assurance operations. She brings to Spectral an innovative approach to managing clinical trials and has lectured to medical professionals on the topics of sepsis and clinical trials for sepsis internationally. She has extensive experience in leading both regulatory and quality system portfolios.
- Initially her career focused on critical care nursing and then critical care clinical research. Ms. Foster values many years as a member of the Canadian Critical Care Trials Group where she developed expertise in clinical trial design, operation and execution.
- Ms. Foster holds a Bachelor of Sciences degree in Human Biology from the University of Toronto.
## Board of Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Experience</th>
</tr>
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<tbody>
<tr>
<td>Anthony Bihl</td>
<td>Chairman of the Board, CEO, Bioventus LLC</td>
</tr>
<tr>
<td>Kevin Giese</td>
<td>Former CEO and Director of Medwell Capital</td>
</tr>
<tr>
<td>Guillermo Herrera</td>
<td>CEO of Altan Pharmaceuticals SA</td>
</tr>
<tr>
<td>Jun Hayakawa</td>
<td>General Manager, Pharmaceutical &amp; Medical Device Business Planning Dept. of TORAY</td>
</tr>
<tr>
<td>Paul Walker</td>
<td>President &amp; CEO of Spectral Medical Inc.</td>
</tr>
<tr>
<td>William Stevens</td>
<td>Former Principal of Birch Hill Equity Partners &amp; Managing Director, Westerkirk Capital Inc.</td>
</tr>
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