December 12, 2016

Bayer & Versant Ventures Join Forces to Launch Stem Cell Therapy Company BlueRock Therapeutics with US$225 Million Series A Financing

Why was BlueRock able to attract this funding?
Market vs. Technical Risk

- **High Market Risk**
  - High Technical Risk: Really hard
  - Low Technical Risk: Incremental tech with uncertain reimbursement?
- **Low Market Risk**
  - High Technical Risk: BlueRock
  - Low Technical Risk: No advantage
Harrison, Gracias, Mitchell (2018)

Translating Regenerative Medicine Science into Clinical Practice: The Local to Global Pivot (Richard Harrison, Aileen Gracias, Will Mitchell); Cell and Gene Therapy Insights, 2018. DOI: 10.18609/cgti.2018.043

From RM science to clinical & market impact: Really slow

Why slow?

- Scientific challenges
- Complementary technologies & services
- Commercial mis-steps
Dendreon: How to bankrupt a pharma company

- **Founded 1992** (Seattle), IPO ~2000, later secondary offers
- **Main product:** Provenge (Prostate cancer immunotherapy)
- **Chapter 11:** 12/2014 (2015: assets acquired by Valeant)
BlueRock in the Regenerative Medicine Value Chain

**Discovery & development**
- UHN
- Memorial Sloan Kettering
- iPS Academia Japan

**Production**: CCRM (value chain partner)

**Finance & value chain integration**
- Bayer
- Versant

**Regional ecosystems**
- Toronto
- New York
Ex vivo lentiviral gene therapies for rare diseases (UHN spin-out, founded 2015; $25 million Series A financing in 2016)

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<th>Disease</th>
<th>Proof-of-Concept</th>
<th>IND-Enabling</th>
<th>Phase 1/2</th>
<th>Pivotal</th>
<th>Worldwide Rights for AVROBIO</th>
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3 patients

6/2018: IPO ($100 million)

10/1 - Study results: Nothing bad, but nothing new

From Toronto to Massachusetts, with links back to Toronto

Cambridge, MA
One Kendall Square,
Building 300,
Suite 201
Cambridge, MA 02139

JLABS @ Toronto
MaRS Centre, West Tower
661 University Ave,
Suite 1300
Toronto, Ontario M5G 0B7
Key Components of Venture Creation

Which of these is most important?

• **Demand side**: Customer value, market opportunity, competitors

• **Team**: Founders & network

• **Supply side**: Science, product/platform, IP status

• **Ecosystem**: Value chain -- inputs & potential exits
Components of a Venture

1. **Demand side**: Market opportunity, customer value, competitors

2. **Team**: Founders & network

3. **Supply side**: Science, product/platform, IP status

4. **Ecosystem**: Value chain -- inputs & potential exits

Value chain integrator & VC partners
• **Demand**: Cardiac & Parkinson’s are blockbuster markets, limited current competition

• **Team**
  – Science dream teams: Studer, Keller, Laflamme
  – Leadership team: **TBD (Key: Versant & local networks)**

• **Supply side**
  – Science: Global reputation
  – Product: Parkinson’s first to clinical trials, then cardiac, potential platform
  – IP status: Viable via multiple licenses

• **Ecosystem**: Local & global value chain
  – Bayer: Strategic investor
  – Production: CCRM / GE ([commercial scale up?](#))
  – Clinical trials: UHN, MSK
  – Regulatory: Supportive environments
  – Reimbursement/market: **Uncertain**

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**Versant timeline**

• **2015**: Scan environment

• **2016**: Negotiations & contracts
Initial Leadership Team: 2017

- **Boston**
  - Emile Nuwaysir, CEO (multiple life sciences)
  - Robert Deans, CTO (multiple life sciences)
  - Tracey Lodie, SVP Translational immunology (Syros, Genzyme)
  - Andrea Brener, HR consultant (life sciences)

- **California**
  - Michael Scott, SVP Product Dev. (ViaCyte)
  - Graham Walmsley, Board observer (Versant)

- **New York**: Eric Soller, VP Strategy (Versant)

- **Germany**: Jurg Eckhardt, Board member (Bayer)

- **Toronto**
  - Jennifer Moody: Sr. Director R&D (CCRM)
  - Nicke Timmins, VP Process Sciences (CCRM)
  - Ainslie Little: Director of IP (Torys LLP)
  - Sherif Sheta, CIO advisor (Bayshore Health)
  - Anne Koehler, Lab manager (U of T)
  - Kamar Green, Office manager (Tornado Spectral)

https://www.linkedin.com/search/results/people/?facetCurrentCompany=%5B%2216175275%22%5D
Lessons to Date

1. Urgency/pace

2. Critical: Value chain integrator
   - Scale
   - Scope & complexity
   - Logistics

3. Multiple ecosystems: Toronto, NY, ...
Regional & Global Ecosystem
Regenerative Medicine
Global Challenges
(Harrison, Gracias, Mitchell, 2018)

• Supply side challenges
  – Academic institutions
  – Funding gaps
  – Intellectual property
  – Commercial challenges

• Demand side challenges
  – Regulatory policy
  – Reimbursement & health technology assessment
  – Stakeholder engagement
  – Patient engagement

• Opportunities
  • Leverage regional expertise
  • Tap global infrastructure
  • Global logistics
  • International standards vs. differentiated advantage
Next Steps for Blue Rock?

- **Science**: What cells? What indications? Trials?
- **Operations**
  - Scale from lab to clinical trials?
  - Coordinate Parkinson’s & cardiac programs?
  - Technology transfer among multiple partners?
  - Manage multiple regulatory environments?
- **Leadership**
  - Creating unified company culture?
  - Balance founders’ scientific needs with commercial activity?
- **Multi-party governance**
  - Govern across multiple partners?
  - Lead integrators?
  - Board: Membership, responsibilities, committees, leaders?
  - Build trusted relationships to facilitate venture evolution?
- **Vision**: Evolution from scientific translation to market
- **Company future**: IPO, out-licensing, acquisition?