

FEBRUARY 25, 2014

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**Are we spending enough \$ on R&D?**

**Should we spend more....or less?**



**Let's Ask a Different Question...**

**What do we actually get from  
all this spending?**



# **HYPOTHESIS: WE ARE MISSING THE BOAT**


**There are scientists with new ideas  
of potentially tremendous value  
for our economy & society**



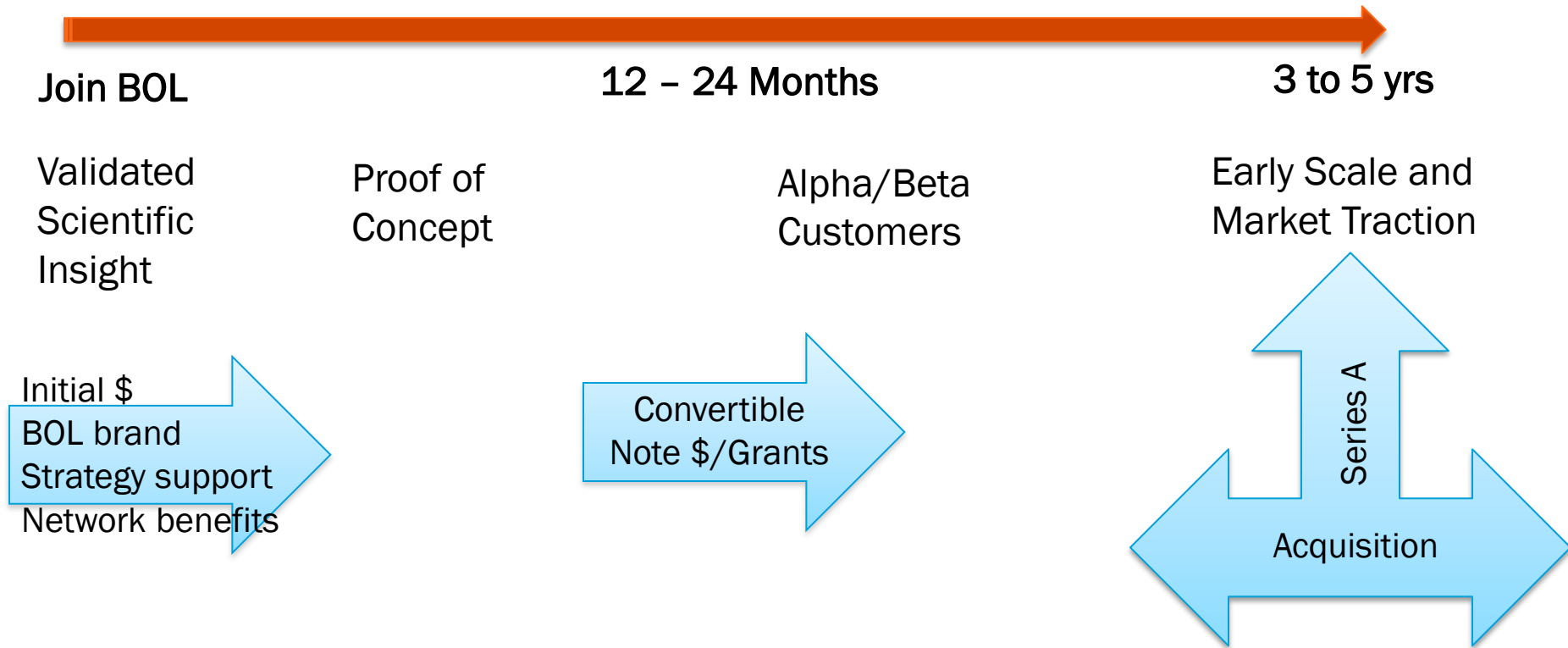
**But they lack support required to launch  
from *the lab into our economy***



# **EXPERIMENT: USE PHILANTHROPY \$ TO SEED COMPANIES**

- **Revolving fund and programming for early-stage radical science companies**
  - **Across all advanced technologies**
  - **Up to \$350,000 to achieve key scientific milestones**
  - **Strategy/progress reviews every 8 weeks until BOD**
  - **Community of scientific entrepreneurs**
  - **Network and follow-on funding connections**
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# BREAKOUT LABS VELOCITY




# HIGHLIGHTS OF RECENT RECIPIENTS

- **Bio-fabrication of meat and leather**
- **Fracture-free cooling for reversible organ preservation**
- **Modifying the DNA in immune cells to create personal drug factories**
- **Knife-edge scanning microscope - digitally reconstruct tissues and**
- **Universal standard for air sampling for biological agents**
- **True oral delivery of biologic therapeutics**
- **Gold nanorods to target tumors**

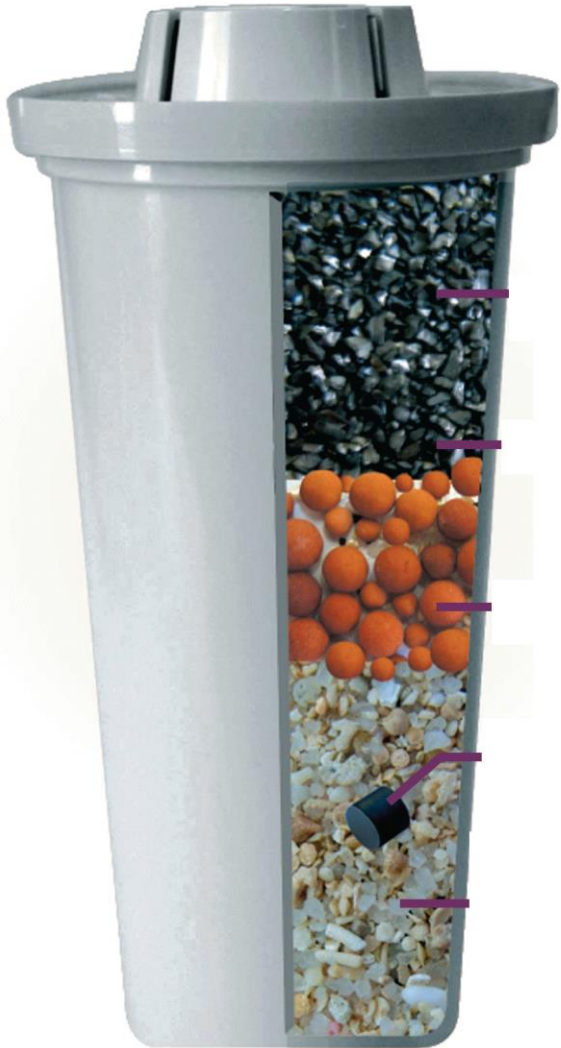


## **OUR PROCESS: SCALE IS REQUIRED**

- **Rolling, internet-based proposal submissions**
  - **Start with pre-proposal –10 day turnaround**
  - **Outsourced expert scientific reviews**
  - **10 to 12 week decision process**
  - **Networking and shared support for companies**
  - **Fund 10+ companies annually**
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# 660 Applicants filtered through multi-stage process

## Funded 16 companies in 18 months



Fit with program goals and likelihood of success  
(Screening committee)

Scientific validity and potential  
(External reviewers)

Strength of company and probability of attracting further funding  
(Executive committee)

## Our Measurement: Revolving Fund returns...

- Nonprofits are hard to measure – companies are easy
- Seeking philanthropic return of 50%
- Grant converts to equity at Series A
- Capped royalty at 3x grant
- Commitment to publish



# EARLY DATA: MORE DEMAND THAN WE CAN FUND

- 2x raised in follow on funds~ \$10.3M
- Brand and program valued at 4x the grant \$
- Yahoo! Labs acquired Skyphrase – first exit
- GE Partnership – “I’ve seen the 21<sup>st</sup> century” Jim Rothman, Yale, Cell Biologist, Nobel Prize
- 120 investors, strategic partners at Unboxing Pitch Event

*Applicants say,*

*“The moment I heard about BOL – I knew it was for me.”*

## **NEXT PHASE: TRACTION WITH INNOVATION PARTNERS**

- **Building innovation ecosystem**
- **Follow-on funders – NetScientific**
- **Industry Strategics – GE, Agilent...**
- **Innovation Hubs – Stanford StartX**
  
- **Launching BOL Innovation Partners – foundations and corporations expanding BOL impact**

# The revolution in science – may just be a new business model

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