Berkeley Postdoc Entrepreneur Program (BPEP)

**BPEP Mission:** To foster entrepreneurship in the UC Berkeley postdoctoral and scientific community in order to move innovations from the laboratory to the marketplace.

**Goals**

- Provide an entrepreneurship toolkit for postdocs through on-campus workshops
- Collaborate with business leaders for mentoring
- Assist building (bio-)technology start-up companies
- Connect technology know-how with business skills
Last session at BPEP...

BPEP WORKSHOP SERIES 2011-2012

1. How to Turn an Idea into a Start-up (Sept 22)
2. IP, Legal issues & Patents: Things aspiring entrepreneurs must know (Oct 6)
3. Pitch session: How to present your idea (Nov 1)
4. How to finance your idea part 1: Overview (Nov 17)

5. **How to finance your idea part 2: SBIR/STTR and other sources of $** (Dec 1)
6. Lean startups
7. Panel discussion: Lessons from academics who made the leap
Last Time: Funding - Angels and VCs

Dushyant Pathak  
Venture Edge

Karl Handelsmann  
CMEA Ventures

Jerry Fiddler  
Zygote Ventures
Last session at BPEP...
BPEP wants YOU

Want to be part of BPEP’s leadership group?
Send an e-mail with your interest to:
Tonight: Funding 2 – SBIR and other $s

Dr. Pamela Miller - Director of the U.C. Berkeley Sponsored Projects Office (SPO)
Ms. Jyl Baldwin – Associate Director, SPO
Dr. Cristian Ionescu-Zanetti – Founder, Fluxion Biosciences, Inc.
Dr. Peter Fiske – Founder, RAPT Industries, Inc., PAX Mixer Inc.
Product Development and Customer Development through Government R&D Funding

Peter S. Fiske
December 1, 2011
There’s this customer...

- 17 million employees
- Spent $2.6 trillion on goods and services in 2006
- Invests around $100B annually in developing new technology
- The largest wholly-owned subsidiary of this company spends more than the entire economy of France
Meet the world’s most important Venture Capitalist:

I want to FUND your Company
Total Venture Capital Dollars Annually

DATA SOURCE: THE MONEYTREE REPORT BY PWC AND NVCA; DATA: THOMSON REUTERS
U.S. R&D Funding by Source, 1953-2007

expenditures in billions of constant 2007 dollars

Source: NSF, Division of Science Resources Statistics. (Data for 2007 are preliminary.)
AUGUST ’08 © 2008 AAAS
“People forget this: Silicon Valley was actually built on federal funding. People have this notion that SV was built in garages. And it’s true, we have some high-profile cases, Jobs – basement, Google in dorm, these things are true – the real fact is that Silicon Valley is the story of federal funding. HP – National Semiconductor, Sherman Fairchild…. People forget that Lockheed was our largest employer. It was these activities that led to the commercial spin-offs – We need to jump “back to the future””

Russell Hancock, Chief Executive, Joint Venture: Silicon Valley Network
KQED Forum: State of the Silicon Valley Economy, 2/17/10
PAX’s track record

• 2008 – ATP grant ($1.9M)
• 2009 – ARPA-E grant ($3.0M)
• 2010 – CEC-ETDG grants (3 @ $350K)
• 2010 – DOE-SBIR Phase 1 grant ($150K)
• 2010 – DOE-NETL FOA-115 ($2M)
Why pursue government funding?

• $ (obviously)
  – Fund new areas or side projects

• Development of the government customer
  – Uncle Sam is largest consumer of goods and services on the planet

• Market/technology/regulatory intelligence

• Get $ that might otherwise go to the competition

If all you’re looking for is $, look elsewhere...
Funding strategies – Part 1: things one can do w/out any help

- Do nothing
- Apply for open competitions when you find them (SBIRs etc.)
- Develop relationship with gov’t R&D sponsors - business development
- Join an existing public/private R&D consortium

Try to steer existing $s toward your company
Funding strategies Part 2: What lobbyists/professionals can help to do

• Introduce you to key program managers
• Create/lead an industry/gov’t R&D partnership
• Develop Congressional support for R&D funding
• Develop State/local support for economic development (e.g. NY)
• Improve odds of funding for open competition (yes, all $ is political)

Try to create new $s directed toward your company
Some realities

• All gov’t $ is political
  – “Apolitical” funding sources aren’t popular (e.g. ATP)

• People tend to feed themselves first before sharing with friends
  – Know where you are in the line

• You must align your work (or, at least, your messaging) with the programmatic goals of the agency

• Jobs, jobs, jobs (and, more jobs...)
In summary...

• Gov’t funding can be valuable component of support for a start-up BUT
  – Management must have a long-term strategy
    • Alignment of R&D and business goals is CRITICAL
    • CEO and CTO need to do the aligning
  – Hard to do w/out at least a bit of help
    • Would you develop your legal strategy w/o a lawyer?

• Gov’t funding and Equity investment are not competitive BUT
  – Perfect synergy is hard to achieve
    • Both sides need to have some flexibility
  – Timescale for funding is completely different
  – The value of the $ is often overestimated while the value of the market development is often underestimated