

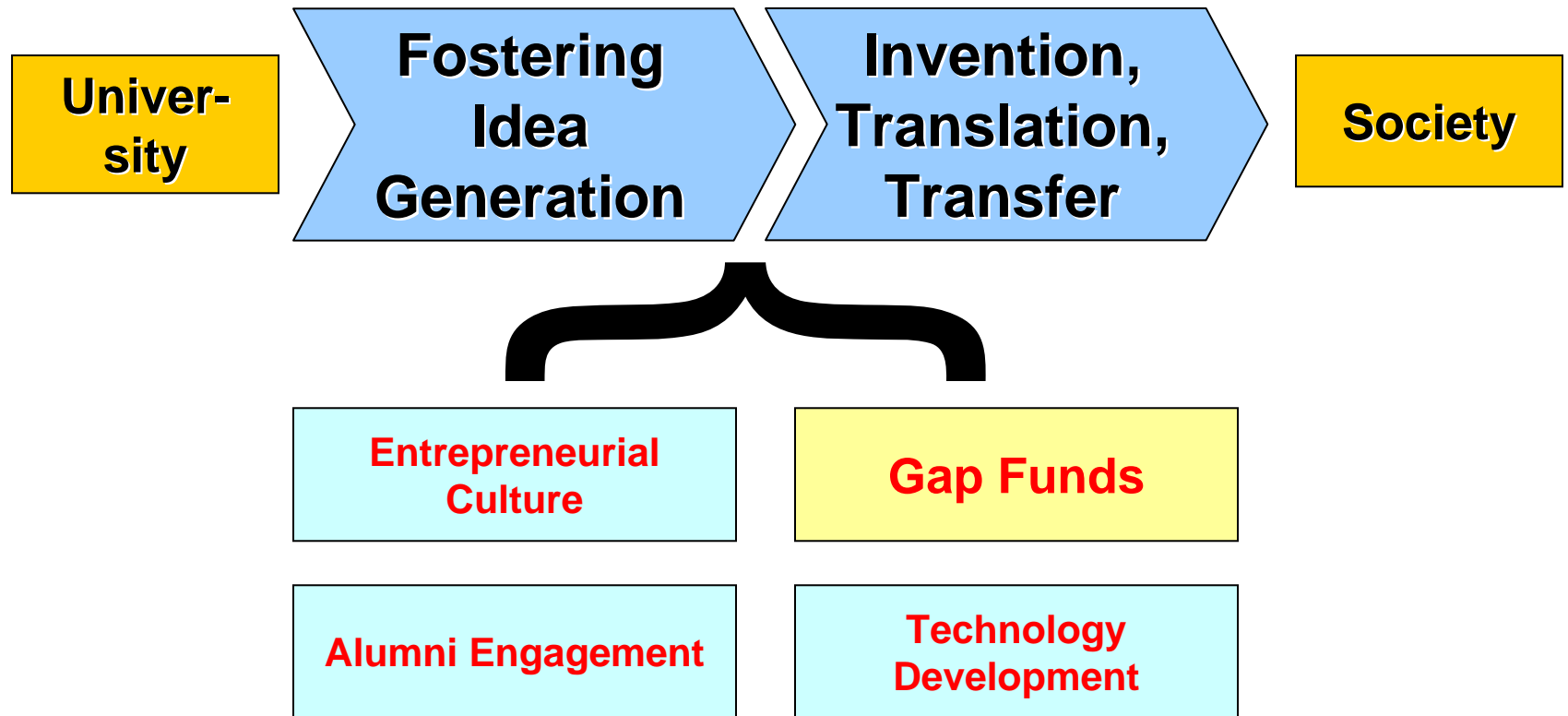
Unleashing the Value of Harvard Innovations

The Accelerator Fund (a proof of concept fund)

Overview
February, 2008



Key Elements of Idea-to-Value Conversion



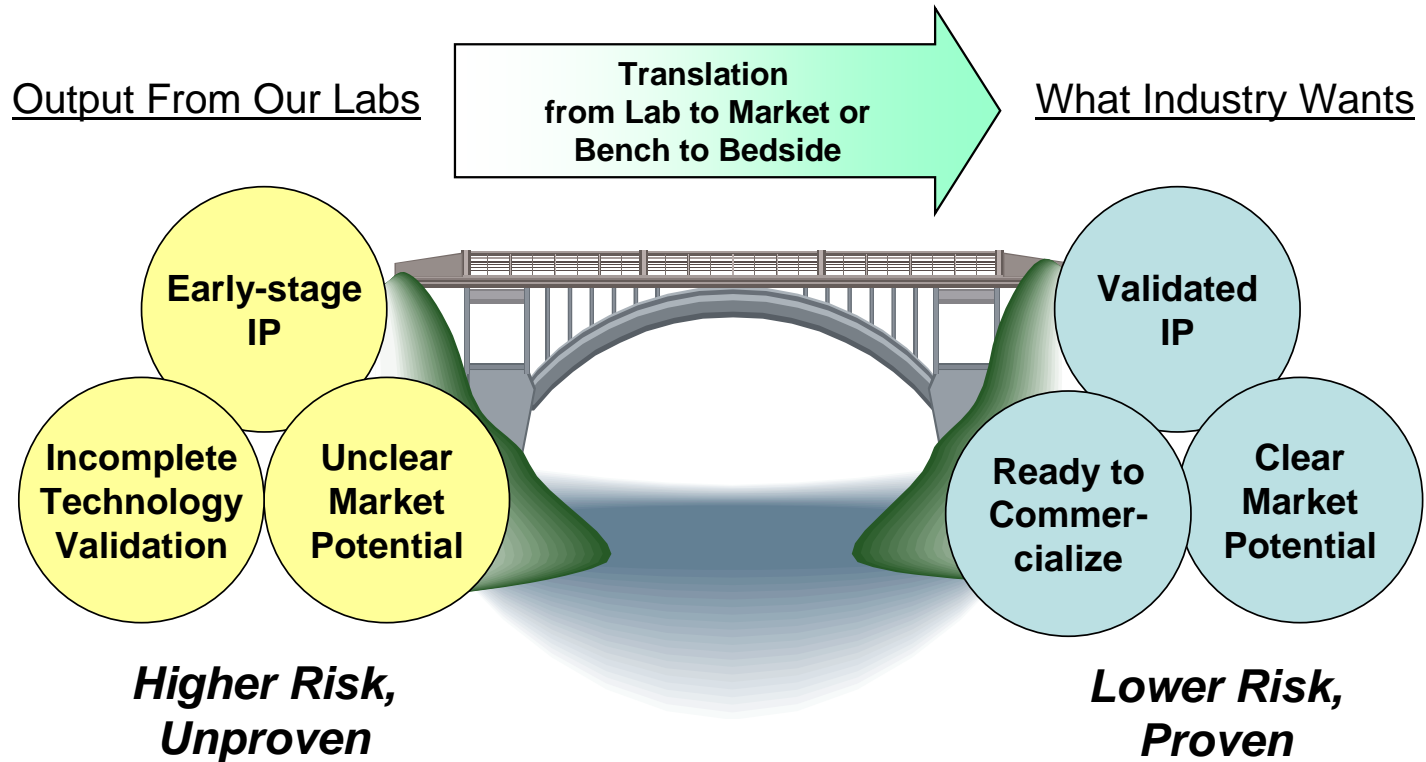
Gap funds (proof of concept funds) are an essential component of a successful technology transfer program

Harvard OTD: not your father's tech transfer office...

- Secured strong support and commitment from the administration:
 - Tech transfer as a key element of social mission
 - Appropriately funded, part of Provost's office
- Making it easy for the outside world to deal with the office
 - Speak the same language
 - Transparency and clarity about practices
 - Internal contract capabilities
 - Efficiency, rapid turnaround, more "volume"
- Building the right team - industry-experienced business developers
 - Business-savvy
 - Entrepreneurial
 - Creative and service oriented
- Driving proactive outreach, internal & external
 - Faculty (our clients)
 - Strategic industry collaborations
 - VCs, angels, entrepreneurs
 - Alumni community
 - University (e.g. Harvard Business School)
- **Taking actions to bridge the development gap**
 - Gap funds (but must be done right!!)
 - Education on innovation / technology entrepreneurship



OTD Accelerator Funds: Bridging the development gap



- This gap is one of THE limiting factor in technology transfer
- Promising innovations lie fallow or are transferred prematurely

Controversy and skepticism...

- **Point:** gap funds are essential for advancing technologies that would otherwise lie fallow
 - universities must have gap funds as part of their technology development programs
 - literature suggests that gap funds work and deliver returns (e.g.: Kauffman Jan 2008 report on proof of concept centers; Price and Sobocinski Dec 2002 report on gap funding)
- **Counterpoint:** technologies that are truly promising will surface regardless of gap funds
 - efficient capital markets will take care of bringing them to market (entrepreneurs, investors, industry)
 - universities shouldn't pretend to be venture investors – they should “stick to their knitting”.



OTD's Accelerator Fund: objectives and business model

- Gap funding for
 - translational development work
 - commercially relevant proof of concept
- Projects selected by independent committee of VCs and industry execs based on
 - market need / potential
 - technical feasibility – biggest bang for the buck
- Translational development work directed and managed by an industry-experienced project manager
 - determines what the appropriate work / milestones should be
 - carries out the work in the most appropriate facilities – not necessarily at the inventor's lab or even at Harvard
 - insures disciplined review of progress
- First Accelerator launched in 2007 – initial focus on life sciences
 - \$4.5M size at first close, allocated \$1.25M of funding in the first year
 - “gifted” structure (see next slide)
 - received 27 pre-proposals, selected 14 for full proposals, funded 6 projects
 - annual cycle



Funding the first Accelerator Fund

- Funded through gifts from donors (Harvard did not approve a “for profit” model at the time)
- Evergreen structure – sustained through participation in “upside” plus additional donor inflows
- Minimal support from university...(this made fund raising more challenging)
- Opportunities and challenges:
 - attractive for donors who want to earmark money for this activity...
 - ...but seen as potentially “competitive” to development office efforts
 - there is potential for “naming” credits for a big donor (e.g. MIT’s Deshpande)



First Accelerator Projects (funded May'07)

Jose Halperin, MD, Gerhard Wagner, Ph. D., Harvard Medical School

"Inhibitors of Translation Initiation for Cancer Therapy"

- lead optimization, in vivo efficacy experiments, biomarker characterization.

Stephen C. Harrison, Ph. D., Professor of Biological Chemistry, Molecular Pharmacology and of Pediatrics, Harvard Medical School

"Small molecule viral entry inhibitors that target HIV"

- development of small molecule viral entry inhibitors of HIV, focus on increasing potency of inhibitors.

Andrew G. Myers, Ph. D., Department of Chemistry & Biology, Harvard University

"Anticancer Agent Based on the Natural Product Avrainvillamide"

- new anticancer drug based on the natural product avrainvillamide originally discovered by the Myers group. The project will support efficacy and toxicity studies in a mouse model of human cancer.

This one already resulted in a license!!

Arlene Sharpe, MD. Ph.D., Vice Chair of Department of Pathology, George Fabyan Professor Comparative Pathology, Harvard Medical School

"pd-1 Small Molecule Immune Response Modulator Screening"

- high throughput screening to identify small molecule modulators of an immunoinhibitory pathway involved in a number of disease including multiple sclerosis, diabetes, and infection.

Pamela A. Silver, Ph.D., Department of Biology, Harvard Medical School

"Quantitatively Designed Protein Therapeutics"

- use the principles of quantitative systems biology to design and test a new class of proteins that are capable of binding multiple unrelated receptors while avoiding side effects caused by the binding to non-target cells. The project will initially focus on cancer therapeutics.

Suzanne Walker, Ph. D., Microbiology & Molecular Genetics, Harvard Medical School

"Development of O-GlcNAc Transferase Inhibitors for the Treatment of Diabetes"

- developing potent specific inhibitors of an essential eukaryotic glycosyltransferase (O-GlcNAc transferase (OGT)) for the treatment of diabetes; first group capable of producing sufficient OGR for high throughput screening; fund will support synthetic chemistry efforts to determine structure activity relationships (SAR) and increase potency of identified screening hits.