Translating Discoveries Into Products
A model for innovation driven economic growth

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The Innovation Gap
Economic Opportunity

• Industries that rely on technological or scientific innovation for their products must source it continuously
• Big companies tend to be poor innovators
• Environments that are good sources of creative discovery and invention include academic institutions
• BUT Inventors often lack the essentials for product development beyond initial prototype:
  – Capital
  – Know-how to design/engineer to product definition
  – Effective patenting strategy and/or tactics
Crossing the Innovation Gap

- High failure rate of translating ideas into tangible products
  - Especially in some industries eg pharmaceuticals and other biomedical products
- Inventor and early investor zeal can lead to skipping important tests and validation
  - Need dispassionate focus on data
- Having multiple ‘shots on goal’ to develop prototypes or candidates for final products is essential
  - Don’t place too much expectation on any one early stage idea

Therefore: Start Up Companies based on single ideas can be ill advised or unnecessary
BioPontis Alliance: An example for Bridging the Gap in Pharmaceuticals

- Captures discoveries in academic institutions
- Investment Fund metrics attractive to investors
- Brings seasoned pharmaceutical experience for translational R&D
- Virtual worldwide resources for complex translational R&D
- Partners product development expertise with inventors
- Generates revenue back to source institutions
### Academic research institutions have:
- Discovery research
- Patented science

**BUT**
- Lack development expertise and capital

### Global pharmaceutical industry needs:
- Discovery science
- Product candidates, not New Co infrastructures
- Candidates built to industry specification and market demand
BioPontis Alliance first to bring a novel investment and development partnership to leverage publically financed innovation to meet market demand.
BioPontis leverages >$3B annually in public research funding
University is source of our asset portfolio
Bring right people and resources to each asset program: Virtual development

BioPontis R&D Management Co
Scientific Development Network

Senior Development Officer
Project Manager
Preclinical
Clinical
Regulatory
CMC
Faculty Inventor
Advisors

BioPontis
University
CROs

Covance, Inc.
Albany Molecular, Inc
Provid Pharmaceuticals
Taconic Farms, Inc
DOCRO (Companion Dx) Rosa
University Alliance Partnership (UAP): Shared economics *and* science

**Economic & IP Sharing** → **Partnered Development**

UAP gets: Pro rata share in total value created

- Original IP
- Improved IP
- New IP
University/BioPontis economic sharing model

BioPontis Fund I
$50MM

BioPontis Development Portfolio
Project A LLC

IPC License A
No up-fronts

Success

Drug Candidate ready for human trials

Exit License

University Discovery Science
(Source of Innovative Assets)

Fund I distribution

UAP distribution
BioPontis-Pharma Partnerships: Link BioPontis portfolio to industry specification and high market demand

Pharmaceutical Partners provide to BioPontis:

- Confidential insight to Portfolio gaps - aid to asset selection
- Guidance on design of studies and specific methods or models to meet specifications
- Acquiring our product candidates at competitive prices

“When pharma buys a biotech company we want the products, not the company” Ted Torphy, PhD, Global Head, External Innovation & Business Models, Community of Research Excellence & Advanced Technology - J&J
Plan for 75% ‘failure’ rate – return to University Alliance Partner
No incentive to continue funding any one asset
No New Co to discontinue
Drug candidates are ready to license into Pharmaceutical industry
Summary Points

- Generating economic growth from discovery science and technology can be achieved without a local ‘start up’ hub
- Focus on **products** needed by industry
- Deliver refined product prototypes, not final product
- Utilize worldwide contract R&D resources
- Results:
  - More academic patents become fundable
  - Inventors/discoverers can continue to do what they do best
  - Investment occurs in Kansas and returns come back
  - Jobs are created and sustained locally to manage value in assets
- Consider government/private investment alignment to attract private capital