Industry demand for discovery science surging

Global pharmaceutical industry:
- Not able to sustain internal discovery research
- Greater dependency on academic external discovery research

Source: Tufts CSDD Approved NCE Database, PhRMA, 2008
The Opportunity: Stranded Innovation

- $35B of public funding to fuel biomedical research each year
- Biomedical advances are accelerating (genomics and mol bio)
  - >5000 invention disclosures
  - >3000 new patents annually
  - Only a small fraction are being invested for development

A new structure is required to bridge the science, investment and relations gaps
University has:
- ‘Biological basis of disease’ discoveries

University doesn’t have:
- Funding capital
- Drug development expertise
- Patenting expertise
- Trust that industry will deliver $$ returns

Industry needing to buy:
- NOVEL, effective cures and treatments to fill pipeline
- Drug candidates developed to meet industry standards
- Commercially viable patent protection
Solution: Build hybrid structure

Investment combined with product development management that translates drug discoveries through all preclinical R&D

Diagram showing the flow from University to BioPontis Model to Industry, with key stages including:
- Discovery
- Lead Development
- Pre-clinical studies (to IND)
- Clinical Trial Development
- Registration & Launch

The LP Investment Fund provides support for scientific development and network expertise, enabling the transition from University to Industry.
Hybrid model: mitigate risks, enhance returns

**Direct Investment:** Invest in portfolio of projects, not companies
- Diversify risk across projects rather than separate management teams/companies
- Eliminate G&A fixed costs in New Cos

**Direct Development:** Manage scientific development of portfolio assets
- Utilize defined network of leading research contractors
- Capital efficient thru reduced fixed costs for scientific execution
# Who We Are Now

## Additional Full-time Hires to Join at Funding

<table>
<thead>
<tr>
<th>BioPontis Management</th>
<th>Role</th>
<th>Expertise/Experience</th>
<th>Yrs</th>
<th>Prior Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard Basile</td>
<td>CEO, Founder, GP</td>
<td>Corporate and commercial mgt; finance, licensing and R&amp;D mgt</td>
<td>30+</td>
<td>Bayer, Organon, Diosynth Biotechnology</td>
</tr>
<tr>
<td>Barbara Handelin, Ph.D.</td>
<td>President, Founder, GP</td>
<td>Genetics/omics applications diagnostics, therapeutics, research tools, entrepreneur CEO, financing</td>
<td>24</td>
<td>Genzyme Genetics (IG Labs), Kenna Technologies, RedPath IP</td>
</tr>
<tr>
<td>Lyle Hohnke, Ph.D.</td>
<td>Chief Investment Officer, GP</td>
<td>GP in VC firm; source deals and lead Fund investments in 19 portfolio companies; CEO; University tech transfer</td>
<td>30+</td>
<td>Tullis Dickerson, Diamond Animal, University of Conn, Pfizer</td>
</tr>
<tr>
<td>Henri Lichenstein, Ph.D.</td>
<td>Chief Scientific Officer, GP</td>
<td>Drug discovery, pre- and clinical development (large/small molecule), licensing, alliance and portfolio management</td>
<td>25</td>
<td>Amgen, CuraGen, TopoTarget</td>
</tr>
<tr>
<td>Alan Higgins, Ph.D.</td>
<td>Senior Development Officer</td>
<td>Chemistry/pharmacology, drug discovery/development (e.g. Norvasc, Tikosyn) platform research technologies</td>
<td>40</td>
<td>Pfizer, Hoffman LaRoche, Allelix, Nobex</td>
</tr>
<tr>
<td>Aaron Dubberly, MS, JD</td>
<td>Senior IP Counsel</td>
<td>Patent agent, senior patent counsel, biochemistry/molecular biology</td>
<td>15</td>
<td>Hoffman LaRoche, Aventis, Organon</td>
</tr>
</tbody>
</table>
### Advisors: Scientific/Clinical and Investment

<table>
<thead>
<tr>
<th>Advisor</th>
<th>Expertise/Experience</th>
<th>Yrs</th>
<th>Prior Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katina Dorton, J.D., M.B.A.</td>
<td>Corporate investment and strategy; deal execution</td>
<td>24</td>
<td>Morgan Stanley, Needham and Co.</td>
</tr>
<tr>
<td>Elma Hawkins, Ph.D.</td>
<td>Corporate investment and strategy; Oncology, Infectious Diseases</td>
<td>25</td>
<td>Antigenics, Pfizer, Genzyme</td>
</tr>
<tr>
<td>Joyce Lonergan, M.B.A.</td>
<td>Fund Investment; financing; corporate development</td>
<td>25</td>
<td>SR One, Cowen Group, Chiron</td>
</tr>
<tr>
<td>Costas Loullis, Ph.D.</td>
<td>Drug Development in multiple disease areas</td>
<td>21</td>
<td>Wyeth Lederle, Trega Biosciences; Sanofi-Aventis</td>
</tr>
<tr>
<td>Wiebe Olijve, Ph.D.</td>
<td>Drug Development; Infectious Diseases</td>
<td>30</td>
<td>Organon, Schering-Plough</td>
</tr>
<tr>
<td>Dennis Schmatz, Ph.D.</td>
<td>Drug Development; Infectious Diseases, Oncology, Neuroscience</td>
<td>30</td>
<td>Merck, Medicines for Malaria</td>
</tr>
<tr>
<td>Warren Strittmatter, M.D.</td>
<td>Drug Discovery; Neurology</td>
<td>37</td>
<td>Chief of Neurology at Duke University</td>
</tr>
<tr>
<td>Phillip Smith, Ph.D.</td>
<td>Fund Investment; Drug Development</td>
<td>33</td>
<td>GSK, SR One</td>
</tr>
<tr>
<td>Sam Wright, Ph.D.</td>
<td>Drug Development; Cardiovascular</td>
<td>31</td>
<td>Merck, Rockefeller University</td>
</tr>
</tbody>
</table>

Additional Advisors/Consultants are Confidential
<table>
<thead>
<tr>
<th>Columbia University</th>
<th>University of North Carolina-CH</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York University</td>
<td>University of Florida</td>
</tr>
<tr>
<td>Memorial Sloan-Kettering</td>
<td>Oregon Health &amp; Sciences University</td>
</tr>
<tr>
<td>University of Pennsylvania</td>
<td>University of Kansas</td>
</tr>
<tr>
<td>University of Virginia</td>
<td>Thomas Jefferson University</td>
</tr>
</tbody>
</table>

BioPontis Alliance Partnership = >$3B annually in research funding
Structured University Partnerships

Cancer, Neurology, Inflammation and Infectious Disease

Universities Alliance Partner (UAP)

Technology Evaluation Agreements

Master License Agreements

BioPontis Alliance Management Company

BioPontis Alliance FUND I

R&D Project 1: Legal Entity

R&D Project 2: Legal Entity

R&D Project 3: Legal Entity

Specific Technology License

Tech1 Tech 2 Tech 3 ...
University Alliance Partnership (UAP): Shared economics *and* science

**Economic & IP Sharing**

- UAP gets: Pro rata share in total value created

**Partnered Development**

- Inventor is Development Team partner

  - UAP/Inventor participate in IP value created at BPA
    - Removes concerns about IP work around
    - Incentivizes UAP/BPA to maximize exit value
    - Promotes transparency and full collaboration
    - Replaces upfront IP cost with shared exit IP value

UAP gets:
- Pro rata share in total value created
- Original IP
- Improved IP
- New IP
Prosecution of Assets
End to End Solution

- Signed CDA
- Non-exclusive
- Continuous assessment
- Restricted to BPA fields of focus

**Disclosure**
- Thorough review of project's science
- PI conferences

**Triage**
- Exclusive hold period
- BPA invested Due Diligence
- Execution of exclusive license
- SPC formed

**Due Diligence**
- PoP Plan developed
- Team assembled
- Fail testing
  - Go/No Go
- Reproducibility & transferability verified
- Timelines established
- New IP prosecution

**Critical Path**
- License/asset sale
- UAP shares in economics

**Exit**

**Selection of Assets for Critical Path**

Confidential BioPontis Alliance LLC 2011
Asset Portfolio Selection Criteria

- Therapeutic areas
  - Oncology, Neurology, Inflammation and Infectious Diseases
- Asset types
  - Small Molecules and Biologics
- Stage of development for entry
  - Target to early lead or later
- Characteristics for selection
  - Definable path to regulatory approval with differentiated, innovative products
  - Mechanistic rationale for modulation of target
  - Definable go/no go (“kill early”) decision points; unbiased assessment
  - Potential to develop biomarkers for
    - Monitoring off/on target effects
    - Patient selection (predictive or physiological) to improve efficacy/safety
• Unbiased approach to testing technologies
  • Proving, not promoting
  • Critical path studies that can disqualify as early as possible
  • Redeployment of capital to more promising assets
  • Only reasons to advance product is merit & increase in value
BioPontis Senior Development Officers with “Knowledge Capital” team develops PoP plan

- BioPontis Scientific and Medical Advisors
- Patent Counsel
- Subject Matter Experts in Translational Network
- Subject Matter Experts from Pharma Partners
- Faculty Inventor
- BioPontis Senior Development Officer

Senior Development Officers with Advisory team to create PoP plan for 2-3 Assets/yr
BioPontis Translational Science Network

BioPontis has agreements (and will be adding more) with Technology Development Partners that have translational capabilities to advance Assets from Target to Clinic.
BioPontis Senior Development Officers and Project Managers, CROs and Faculty form team to execute project goals
“Investment ready” solution: unique alliances and a new value chain

University Alliances

10 Research Institutions & Universities

Pharma Alliances

University Discovery Science (Source of Innovative Assets)

BioPontis Asset Fund

BioPontis R&D Management Co

Translational Development Network

Knowledge

Input

Pfizer

Janssen

Merck

IND or Ph. I ready

Confidential BioPontis Alliance LLC 2011
BioPontis Alliance Summary

• Revolutionary partnership with Universities = source of innovation

• A scientific development company investing in and managing a portfolio of highly innovative projects - rather than companies

• Executing unbiased preclinical testing across a diverse portfolio with a high capital efficiency through an open architecture

• Delivering industry vetted assets suitable for biopharmaceutical pipelines - alongside competitive financial returns

• Scalable model, applicable to all fields, can be replicated
Thank you

Contact us

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