Building a Community of Innovation and Commercialization: The BEACON Model

Presentation to UConn Engineering Department
April 29, 2010
“Use Inspired Research”

Translational Research

R&D...

Sealer Funds

Business Proof of Concept
- Market Assessment
- Freedom to Operate
- Regulatory & Reimbursement...

Business Plan

Risk Abatement

UNIVERSITY

Research and Development Projects

Basic and Applied Research

Prototype

Preclinical Trials

Clinical Prototpe

Clinical Validation Industrail Prototype Regulatory Pathway

Commercialization & Manufacturing

INDUSTRY

Federal and State Agencies, Corporate R&D, Private Foundations...

SBIR, STIR, Corporate Ventures, Private Foundations, Private Investors...

Road Map

Prototype

Feeder
Translational Research

Timeline

- Preclinical Trials
- Clinical Trials
- Regulatory Pathway
- Premarket / Regulatory Approvals
- Clinical Prototype
- Business Proof of Concept
- Product Development

Academic Value

- Risk Abatement
- Translational Research Gap

R&D

UNIVERSITY

INDUSTRY

Commercial Value

- Market
- Clinical Use

... Health Care Products
A NATIONAL MODEL

The Wallace H. Coulter Foundation’s Translational Partnership Award

In October 2005, the following 9 universities were selected to receive the Translational Research Partnership Award in addition to already existing programs at Georgia Tech University and Emory University:

- Boston University, Boston, MA *
- Case Western Reserve University, Cleveland, OH *
- Drexel University, Philadelphia, PA
- Duke University, Durham, NC *
- Stanford University, Stanford, CA *
- University of Michigan, Ann Arbor, MI *
- University of Virginia, Charlottesville, VA
- University of Washington, Seattle, WA *
- University of Wisconsin, Madison, WI *

* Received CTSA
Why Translational Technology Efforts are Important

Medical Device Industry Forecast Calls for Strong & Sustained Growth

Industry drivers:

• Rapidly aging population
• Scientific advances
• Health-conscious consumers
• Less-invasive devices
Medical Device Industry Forecast Calls for Strong & Sustained Growth

Current Factors:

• $100 billion industry
• Outperforms S&P 500
• 9-10% average annual growth
• “recession-proof”
• “double-digit growth for years to come”
• Over $6 billion added to U.S. trade accounts annually
Biomedical Engineering is no longer an emerging discipline; it has become an important vital interdisciplinary field.


Biomedical engineers are part of the healthcare delivery team involved in the design, development and utilization of materials, devices and techniques for solutions in clinical research.
Our world...

Biomedical Engineering Alliance and Consortium

THE WORLD OF BIOMEDICAL ENGINEERING

Biomechanics

Medical & Biological Analysis

Biosensors

Clinical Engineering

Medical & Bioinformatics

Rehabilitation Engineering

Physiological Modeling

Biomedical Instrumentation

Bionanotechnology

Prosthetic Devices & Artificial Organs

Medical Imaging

Biomaterials

Biotechnology

Tissue Engineering

Neural Engineering
BEACON is a non-profit organization consisting of academic and medical institutions as well as corporations dedicated to the development of new medical technology and their commercialization.
Our strategy...

- Broker collaboration among industrial, academic, and medical institutions.
- Promote industrial and commercial partnering among BEACON members.
- Facilitate the development of emerging technologies as related to healthcare.
- Create alliances within our region.
- Expand the network and partnerships globally.

We call this strategy: merging minds, hospital/medicine/healthcare and industry.
Building a bridge between academia & industry to facilitate translational technology efforts
What might industry want to know about? Here is an example:

Pfizer is a member of BEACON. At a recent meeting they shared with us their strongest areas of interest in biomedical engineering:

1. Neuroscience/Neural Engineering/Neural Therapies
2. Advances in Antimicrobial Applications
3. Cardiovascular and Metabolic Disease with a focus on Diabetes

For a complete list of areas of interest at Pfizer, visit:

www.pfizer.com/research/licensing/areasofinterest.com
Example of how to have your idea/technology reviewed

Pfizer has 3 ways to do this:

1. Submit your non-confidential idea through a portal that will allow them to review it: www.pfizer.com/research/licensing

2. Watch for RFP announcements from Pfizer and submit accordingly.

3. Develop a contact with a research scientist within Pfizer through visits to scientific meetings where they are presenting.
What you need to do before you “make the pitch”

Pfizer suggests you answer these questions before you submit your idea to them:

1. Will the idea enable “improved data quality” than the current ‘gold standard’ approach?
2. Will the idea be “more cost-effective” than the current ‘gold standard’ approach?
3. Will the idea offer “reduced time cycle” than the current ‘gold standard’ approach?
4. For more information, visit: http://hbr.org/2006/06/eager-sellers-and-stony-buyers/ar/1
Medical devices provide “hot” investment opportunities.

The interaction of pharma and medical devices will set the pace during the next decade.

BEACON – an alliance of academic and medical institutions as well as corporations dedicated to the development of new medical technology – will continue to facilitate new medical technology, new companies and new jobs.