University Industry Partnerships: Winning Strategies for Negotiating Industry-Sponsored Awards

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Parties interested in this subject

AUTM -> Study on U-I matters

NASULGC -> Competitiveness/Metrics

NGA -> University impact on state ED

NSF -> Corporate Alliance Board

IIP Division

PCAST -> Subcommittee on University-Private Sector Partnerships for Research
The University Industry Demonstration Partnership (UIDP)
UIDP Mission

*Enhance the environment for University-Industry research collaborations and promote US competitiveness*
University-Industry Congress (2003-2006)

- Delegates from industries, universities, and government
- Identify principles of collaboration
- Identify strategies for translating principles into research agreements
- Hold a Summit of National Leaders to accomplish these goals
Results of the Congress

• Launch of UIDP
• A set of Guiding Principles for U-I partnerships (Strategic)
• A collection of case studies
  ➢ *Living Studies in University-Industry Negotiations*
• Commitment to develop TurboNegotiator (Tactical)
Why should we care about industry funding for academic R&D???

- Federal Funding dominates (typically 80% or more of mix)
- Industry is more demanding
  - Timelines
  - Deliverables
  - IP
  - Financial
We care about industry funding because

• It is a strategic part of the funding mosaic
• Pipeline for hiring of students
• Development motivations
• Enhanced linkages to economic development – especially local ED
Academic R&D Expenditures

Industry supports ~5% of all Academic R&D
US R&D Expenditures by Sector

Industry surpassed government on R&D expenditures in 1980
Research Funding vs. Licensing Income

Industry Sponsored Research (Millions of $)

Net Licensing Income (Millions of $)

<table>
<thead>
<tr>
<th>Year</th>
<th>Industry Sponsored Research</th>
<th>Net Licensing Income</th>
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<tr>
<td>1991</td>
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Industry Sponsored Research (Millions of $)

UIDP Focus!!

The graph shows the trend of Industry Sponsored Research (in Millions of $) from 1991 to 2002. The research funding increased significantly over the years, with a notable rise from 1995 onwards.
Different Currencies

Universities
Education of Students
Creation of Knowledge
Dissemination of Knowledge

Core Missions

Industry
Create Value for Investors
Provide Useful Goods/Services
Expand State of the Art
Different Currencies

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- Education of Students
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Healthy but Tenuous Balance

Industry
- Create Value for Investors
- Provide Useful Goods/Services
- Expand State of the Art
Guiding Principles for U-I Partnerships

- Support the mission of each partner
- Focus on fostering appropriate, long term partnerships
- Seek to streamline negotiations to ensure timely conduct of the research and the development of research findings
Industry Perspectives
Timeline from Conception to Market

Foundational Research
- Funding Granted
- Papers Published

Foundational Science

Invention Development
- Patent Applications
- Patents Granted

Technology Commercialization
- Predecessor Patents Granted

Time

4-5 yrs
9-11 yrs
8-10 yrs
(T4 > 5 yrs)

The Council for Chemical Research
A long time before anyone makes money!!
The Not So Good News…

Companies are asserting that it is becoming less attractive for companies to partner with US universities and national laboratories to invent and commercialize technology.
What is the Problem?

Negotiation of intellectual property rights in sponsored research agreements has become a barrier to industry-university research collaboration in the United States.

– more contentious
– takes longer
– increases transactional costs
– little/no benefit results
Factors that Impact US Universities and Their IP Policies

Bayh-Dole Act of 1980

- University owns IP resulting from federally sponsored research
- University has obligation to try to commercialize IP

Tax Laws

- not-for-profit status (UBIT)
- use of tax exempt bonds (Rev Proc 2007-47)
US Bayh-Dole Act

• Intended to promote commercialization of inventions resulting from federally funded research

• An exception is made for privately-funded research
  – Sec. 401.1 Scope.
    • a.1 To the extent that a non-government sponsor established a project which, although closely related, falls outside the planned and committed activities of a government-funded project and does not diminish or distract from the performance of such activities, inventions made in performance of the non-government sponsored project would not be subject to the conditions of these regulations. An example of such related but separate projects would be a government sponsored project having research objectives to expand scientific understanding in a field and a closely related industry sponsored project having as its objectives the application of such new knowledge to develop usable new technology.

• Many universities interpret Bayh-Dole to apply as long as “one federal dollar touches” the privately-sponsored project and claim a statutory right to own subject inventions and control their licensing
  – typically require sponsor to pay patenting cost and offer only an option to negotiate a license
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This interpretation makes US universities less attractive as partners in privately-sponsored research
Tax-Related IP Barriers

• Universities perceive that there are provisions of the US tax code which jeopardize the non-profit status of the institution or tax-exempt status of bonds if they include “pre-licensing” terms for foreground inventions in sponsored research agreements.
  – Are these issues real or just perceived?
• These concerns cause US universities to offer very limited and uncertain IP access to industry sponsors (e.g., only an option to negotiate a license)
  – Foreign universities often assign patent ownership to sponsors
Why is This Problematic?

Companies want “reasonable control” of foreground IP (assured right to practice) because without this they may:

- Be unable to use technology developed with their funding (bad research investment)
- Have to pay licensing fees/royalties that make commercialization unattractive (bad business decision)
- Find that the university decides to license the technology to a competitor (worst nightmare)
IRS Revenue Procedure 2007-47

Comes into play when tax-exempt bonds are used to finance buildings where research is performed

– tax-exempt status of a bond is jeopardized if research for “private benefit” exceeds 5 or 10%
– defines a “safe harbor” for privately sponsored research

• sponsor may not receive preferential treatment in licensing inventions from the research
  – inventions must be licensed at fair market value
  – licensing terms can not be included in the research agreement
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This barrier is unique to the US and is a competitive disadvantage
Factors That Impact US & Multinational Companies

• Globalization of business
  – markets
  – manufacturing
  – R&D

• Globalization of communication
  – internet, e-mail, shared databases
  – inexpensive telecommunication
  – inexpensive air travel

• Increasing quality of foreign universities
  – students
  – research
  – infrastructure
2003 Industry Survey

Polled members of the External Technology Directors Network of the Industrial Research Institute

Question: Do you/your company agree with the following statements:
2003 Industry Survey

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A. IP issues are an impediment to working with US universities
B. We sometimes choose to work with a foreign university (rather than a US university), and getting better IP terms is one of the reasons for doing this
2003 Industry Survey

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A. IP issues are an impediment to working with US universities
B. We sometimes choose to work with a foreign university (rather than a US university), and getting better IP terms is one of the reasons for doing this

Responses:
• 100% agreed with statement A
• 50% agreed with statement B
Be Bold
Embrace The Change!
New Models and Approaches

- RIT – Corporate Research Program
- UIDP – Turbonegotiator
- International – China, Ireland, Germany
- Dow – Master Agreement
- Texas A&M – T&P credit for industry grants
- Innocentive - Open Innovation

Some of these are incremental; others disruptive!
Challenges you face........

Univ - Faculty/Admin
University - Faculty/Admin

And

Then

This!

Companies - Technical/Legal
Embrace The Change

HP Labs Innovation Research Program - 2008

To be eligible for an award under this program, an applicant’s institution must accept the HP Labs Innovation Research Program Collaborative Research Agreement (CRA) as part of the proposal-submission process (see Appendix 1). Key provisions of the CRA specify university and HP intellectual property rights in the project and secure other important aspects of the collaboration.

Embrace The Change

HP Labs Innovation Research Program - 2008

Goals / Objectives
- HP’s Motivations
- Focusing on Collaboration
- Creating Win-Win Situations for Universities and for HP

Publications

Intellectual Property (IP)
- Joint IP
- University Project IP
- HP Project IP
- Third-Party IP and Background IP
Embrace The Change

HP Labs Innovation Research Program – Publications

Idea / Concept: We want to ensure that the university has academic freedom …..

….projects are collaborative efforts between an HP researcher and a university researcher, it is anticipated that …… no delays prior to submitting a paper are necessary, since the HP researcher will be involved in the creation of the paper and will follow standard processes for filing invention disclosures.

If a paper is not co-authored with an HP researcher, then a review period is needed …… The typical review period is 30 days. ……..

The University researcher does not need to get publication “permission” from HP. HP is not attempting to exert control or censorship over the university publication.

HP is especially desirous to avoid a negative impact on a student’s academic endeavors. If a student includes information on patentable material in his/her thesis, then the thesis committee may hold this material in confidence until HP has filed a patent application.
Embrace The Change

RIT The Corporate R&D Program

This new “Corporate R&D” program provides a master’s degree level student with a faculty adviser to work on a company R&D challenge. The work is carried out during the course of a year at a fixed price per quarter, which provides intellectual property ownership to the company.

http://www.rit.edu/research/corporate/
Embrace The Change

The Benefits of Corporate R&D at RIT

• The **company retains ownership** of intellectual property generated through the project.
• An agreement is made that covers all aspects of the project including student work.
• Companies need only to approve the statement of work for each new project.
• Projects are **low cost** compared with in-house research or company-to-company partnerships.
• Companies get a first look at students as potential future employees.
UIDP Project Process
Funneling of Projects

Demonstration Projects of Interest to the Membership

UIDP Selection Process

Projects Undertaken by the Partnership
First Major UIDP Project  

*TurboNegotiator*

- Time to agreement too long for both university and company
- All university-industry agreements are unique
- Inconsistent terms and conditions, all over the map

UIDP ‘s approach for addressing U/I contracting issues
What is *TurboNegotiator*?

- Interview tool to bring both sides to agreement on nature of project

- Answers to interview questions allow project to be plotted in “project space”

- Software suggests rational, applicable clauses

- For each clause, user can access information on history, use, pros and cons for industry/university

- Dissemination of great depth of expertise, training tool
Time-To-Agreement Too Long!
(university view)

1½ years and counting!
Time-To-Agreement Too Long!
(industry view)
University-Industry Contracting

- 95-97% of all research projects result in NO licensable IP
- Disproportionately more staffing to manage industry-sponsored research
- More issues to negotiate
  - Warranty, Publication rights, Indemnification
  - Background and Foreground IP
  - Choice of Law, Export control, etc...
Impact from Protracted Negotiations

- Expensive (legal fees)
- Time-sensitive funding disappears
- Company cycle vs. university cycle
- Discouraged faculty
- Student time line
- Sponsor unlikely to return in the future
- Technology becomes outmoded
How TurboNegotiator Works

Principles/Values/Foundations of U/I Partnerships

Public

Definitions | Case Studies | FAQs | Consensus Statements
--- | --- | --- | ---
UIDP – TN Website
Case Studies

- Members compose case studies highlighting contentious situations
- Meeting breakout sessions explore questions posed by case studies
- Feedback helps clarify consensus statements
- Case studies remain as useful training tools in TurboNegotiator
Consensus Statements

- Publications
- Rights to Other Research Results
- Statement of Work
- Indemnification

Still being discussed…

- Background Intellectual Property
Purpose of Consensus Statements

• Permit the discussion of differences in needs and expectations of the parties
• Find common ground
• Reflect reasonable practices
• Serve as a source of information and education for
  – Contract negotiators
  – Faculty
  – Company researchers
  – Attorneys
• Defines what it does NOT address
Purpose of Consensus Statements

- Permit the discussion of differences in needs and expectations of the parties
- Find common ground
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- Serve as a source of information and education for contract negotiators, faculty, company researchers, and attorneys

The Process of Developing the Consensus Statements has been very useful in helping to identify the nuances around these challenging issues and allowed us to better address the real world situations faced by negotiators!
How TN Works

University  Company  Private/Secure

Survey Questions
- Definitions
- Case Studies
- FAQs
- Consensus Statements

UIDP – TN Website
How TurboNegotiator Works

- University
- Company
- Private/Secure

Survey Questions:
- Definitions
- Case Studies
- FAQs
- Consensus Statements

UIDP – TN Website
Interview Questions

- Establish common ground
- Identify differences in expectations
- Define project space
- Hot links lead to resources
Questions Focus on Defining Project Space

- Nature of Project
  - Fundamental
  - Applied
- Contributions of Parties
- Likelihood of Invention
One Size Does Not Fit All….

Position in “Project Space” impacts contract terms and negotiation.
How it Works

University

Company

Univ Data

Compare Answers

Company Data

Private/Secure

Survey Questions

Definitions

Case Studies

FAQs

Consensus Statements

UIDP – TN Website

Public
Status of TurboNegotiator

- April 08 – Request for Information sent to potential developers
- June 08 - Several proposals received and evaluated
- July 08
  - Selection of developer
  - Consensus statements finalized
  - Begin development of case studies
- August 08 - Begin coding
- Dec 08 – Beta version available
TN Survey Demo

Observations

- Way too much stereotyping - on both sides

- Increasing impact from foreign universities – if you believe what is being said by companies

- “Outsiders” playing bigger role – different motivations
  - State governments
  - Regional ED organizations
  - Private Foundations
  - Federal Government

- Companies are looking to partner rather than fund single projects – less dates, more relationships
Final Thoughts

- Treat each agreement as if the President was sitting next to you when negotiating
- Seek partners – do master agreements
- Small businesses – their own set of issues!
- Leverage faculty desires to get deals done
- Support efforts for different metrics for IP offices
- You are senior administrators – use that to empower you and ensure smoother negotiations
- E-mail is your enemy! Meeting with people still matters
Recent Headlines

July 2008
NSF announces partnership with industry, academia to further explore data-intensive computing
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July 2008
GSK invest $25M in Harvard Stem Cell Alliance
Universities, Industry and Governments value these partnerships
Case Study

- Based upon real world example
- Good illustration of the complexities of the issues
- Read independently
- Discuss collectively
Thank you
Contact Information

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Questions?