Industrial Grants and Research Contracts – a Primer

Norbert J. Pelc, Sc.D.
Departments of Bioengineering and Radiology
Stanford University

Disclosure

Research support: Consulting:
GE Healthcare Varian Medical Systems
Philips Healthcare NanoX Imaging

Scientific advisory boards:
RefleXion Medical
Prismatic Sensors
OurCrowd International

Outline

• What topics are well-suited?
• Appropriate timeline and direction
• Resource allocation in academia
• "Fruits of labor” (data, code, patents, etc.)
• Elements of a Research Agreement
Collaboration topics

- **Academic's perspective**
  - should be fundamentally interesting to me
  - should be publishable
  - get data for follow-up (e.g., NIH) funding
- **Industry perspective**
  - must be important to my business
- Ideal projects meet these criteria

Collaboration topics

- **New technology**
  - flat panel detectors, C-arm CT
- **Young faculty member** with strong interest and expertise
- **Interested industrial partner**
- Led to:
  - new lab
  - advanced research equipment
  - new clinical applications
  - substantial research funding
  - successful academic career

Collaboration topics

- **Cause for caution for young faculty**
  - topic that is not in your academic vision
  - requires a clinical collaborator you don't have
  - work that is not publishable (deal breaker for grad students)
  - in-kind exchange with high %effort but no $
Timeline and direction

- Product development is on tight timeline
  - industry mobilizes large teams of full time personnel
  - short deadlines
- Academic research is best on slower timeline
  - small teams, graduate student training, etc.
- Some of the best academic research projects are speculative (higher risk, long timeline)
- Industry gets highest value from:
  - less directed, more exploratory work
  - late stage work, ready for translation product

Financial perspectives

- Industry perspective
  - may be an inexpensive way to do R&D
- Academia perspective
  - easy money
  - free research equipment
- Neither perspective is fully true
- Each side must understand the needs of the other

Resource allocation in academia - Funded project must cover:

- Research costs
  - supplies, scan time, animal costs, etc.
- Research staff and postdocs
- Graduate students (unless on fellowship)
  - stipend, tuition
- Faculty salary
- Overhead
**Fair Market Value Exchange**

- Evaluation of fair exchange
- Each side pays & gets "fair market value"
- Necessitated by commercial relationship between the organizations
- Used to be easy. Not so any more.
- Industry-provided equipment:
  - easy if only used for company's research projects
  - complicated if used for other research
  - very complicated if used clinically

**Fruits of the labor**

- Data
  - sponsor generally gets to use the data
- Software (developed under the agreement)
  - sponsor generally gets to use software for internal evaluations
  - sponsor generally gets rights to "derivative code", e.g. improvements to industry-provided software
- Patent licenses

**Patent rights- usual terms**

- Separate license/option for pre-existing IP
- Each side owns the IP of their employees
- For sponsored work, industry gets
  - cheap or free nonexclusive license
  - first right to royalty bearing exclusive license
Research Agreement

- Single project vs. "umbrella" agreement
- Should clearly delineate project
  - deliverables, schedule, support
- Confidentiality clause
- Publication clause
- Intellectual property
- Indemnification
- Termination date

Confidentiality clause

- Needed to protect confidential information (CI)
  yet easy allow exchange of ideas
- Should be 2-sided and balanced
- CI protection must extend beyond term of the agreement
- Careful with clauses that limit your activities,
  especially long after the agreement

Publication clause

- Allowed terms may differ across institutions
- At Stanford:
  - all research can be published
  - no editorial control by company
  - short time for company review before/during
    review to protect confidential info and IP
- Read it carefully. It's especially important for your students
Summary

• Academia-industry collaborations can be very effective
  - early stage research
  - translation to products
• Choice of research topics is important
• Compliance is harder than in the past - not the fault of the company
• We need to ensure that these interactions can continue to be achievable