

Industrial Grants and Research Contracts – a Primer



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Disclosure

Research support:

GE Healthcare
Philips Healthcare

Consulting:

Varian Medical Systems
NanoX Imaging

Scientific advisory boards:

RefleXion Medical
Prismatic Sensors
OurCrowd International

Outline

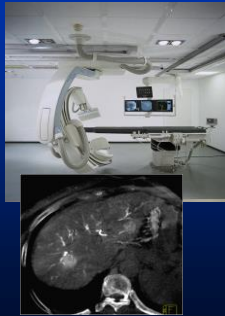
- What topics are well-suited?
- Appropriate timeline and direction
- Resource allocation in academia
- "Fruits of labor" (data, code, patents, etc.)
- Elements of a Research Agreement

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
