Comparison of Cornell’s IP Policies, Procedures, Practices, Climate, and Accomplishments to those of MIT and Stanford

1. *IP Policy with respect to Invention Ownership*:

Cornell: Inventions Policy 1.5. Cornell University requires inventors to assign to the university or its designee all rights and titles of their inventions and related property rights that result from activity conducted in the course of an appointment with the university and/or using university resources, including those provided through an externally funded grant, contract, or other type of award or gift to the university.

Stanford: All potentially patentable inventions conceived or first reduced to practice in whole or in part by members of the faculty or staff (including student employees) of the University in the course of their University responsibilities or with more than incidental use of University resources, shall be disclosed on a timely basis to the University. Title to such inventions shall be assigned to the University, regardless of the source of funding, if any.

MIT: When Intellectual Property is developed by MIT faculty, students, staff, visitors, or others participating in MIT programs using significant MIT funds or facilities, MIT will own the Intellectual Property. If the material is not subject to a sponsored research or other agreement giving a third party rights, the issue of whether or not a significant use was made of MIT funds or facilities will be reviewed by the inventor's/author's laboratory director or department head, and a recommendation forwarded to the Technology Licensing Office (TLO). The Vice President for Research will make the final decision on this issue and on any dispute or interpretation of policy relating to Intellectual Property.

Generally, an invention, software, or other copyrightable material, mask work, or tangible research property will not be considered to have been developed using MIT funds or facilities if: only a minimal amount of unrestricted funds has been used; and the Intellectual Property has been developed outside of the assigned area of research of the inventor(s)/author(s) under a research assistantship or sponsored project; and only a minimal amount of time has been spent using significant MIT facilities or only insignificant facilities and equipment have been utilized (note: use of office, library, machine shop facilities, and of traditional desktop personal computers are examples of facilities and equipment that are not considered significant); and the development has been made on the personal, unpaid time of the inventor(s)/author(s).

2. *Distribution of Licensing Revenue*

Cornell: The University will distribute total net license revenue as follows:

- One-third (33.3 percent) to the university inventor(s) in recognition of their contribution
- One-third (33.3 percent) will be divided as follows: (a) 60 percent to the inventor's research budget, sub-unit (typically the inventor's department, school, section, or center) and university unit (typically the inventor's college) in a manner to be determined by the dean of the unit (or, for research centers in the Research Division, the Vice Provost for Research), and (b) 40 percent to the university for general research support
- One-third (33.3 percent) to the university to provide CCTEC with operating funds to cover the cost of service provided to the university with regard to intellectual property matters and particularly to cover direct costs, where license revenue or other cost recovery has not been achieved.

Stanford: Royalty distribution is as follows:
A deduction of 15% to cover the administrative overhead of OTL is taken from gross royalty income, followed by a deduction for any directly assignable expenses, typically patent filing fees. After deductions, royalty income is divided one-third to the inventor, one third to the inventor's department (as designated by the inventor), and one-third to the inventor's school.

MIT: Royalty distribution procedure:
1. Deduct a 15% Administrative Fee from Gross Royalty Income. This deduction is directed toward covering the expenses of the Technology Licensing Office.

2. Then, deduct out-of-pocket costs not reimbursed by licensees, assignable to the specific case, and, in some cases, a reserve to arrive at Adjusted Royalty Income

3. Distribute one-third of the Adjusted Royalty Income to the inventors/authors (“the Inventors’ Share”). This distribution shall be contingent upon the inventors’/authors’ adherence to the obligations of any applicable sponsored research agreement.

4. 50% of the remainder is distributed among Departments and Centers proportional to their Department/Center Case Contribution

5. The remaining net income are first used to cover TLO office and patent expenses, with the remainder going to the MIT General Fund.

3. *Open release of software*

Cornell: Fully allowed if release is unfettered and not in violation of any relevant sponsored research agreement. Cornell is developing a formal written policy on open release to provide clarity and guidance on procedure to follow.

Stanford: The inventors, acting collectively where there is more than one, are free to place their inventions in the public domain if they believe that would be in the best interest of technology transfer and if doing so is not in violation of the terms of any agreements that supported or related to the work.

MIT: The MIT Technology Licensing Office receives many requests from MIT faculty and staff regarding distributing software via an open source license, without fee or royalty. The TLO supports this approach if the authors of the software feel it is an appropriate distribution method for the software in question, provided that there is not an active sponsored research grant that would prevent such distribution, and such distribution has been approved by the head of the relevant department, laboratory, or center. The authors must complete the MIT Software Disclosure Form for any software that is to be released under an open source license.

4. *Management of Conflict of Interest and Conflicts of Commitments*

All seek to be in compliance with federal regulations and best practices as recommended by AAU/AAMC.

Cornell: Has a uniform fCOI Related to Research Policy and a Conflicts policy (latter is being updated.) The two major campuses, Ithaca and Weill, have different procedures for implementation. The Weill procedures and Conflicts Advisory Panel (CAP) tend to be more stringent that those at Ithaca, as is appropriate for a medical campus with a large volume of clinical trial investigations. Ithaca's fCOI management plans are most stringent for the few cases where human participant research is a factor in the fCOI. With respect to guidelines on management of faculty startups, Ithaca is more lenient (at present) than either Stanford or MIT. **Note that prior to 2010 Cornell Ithaca had no effective management of fCOI, as indicated by multiple internal and external federal audits.**

<u>Research funding</u>, including SBIR and STTR flow-through, from entities in which the PI has a significant financial interest:

Cornell: Allows, with conflict management (see attached guidelines)

Stanford and **MIT** both forbid all such funding, as do most, but not all, top tier research institutions (see attached Stanford guidelines)

<u>Management role in external entity</u>:

Cornell: Discouraged but not currently forbidden

Stanford: Forbidden, except when on leave of absence, as an unmanageable conflict of commitment. **MIT**: No public statement.

5. *Business incubator*

Cornell: McGovern Center – operations began 2012

Stanford and MIT: No business incubator

6. *Institutional financial support for technology maturation*

Cornell: Committed to as part of technology transfer reform plan in 2006. Never funded.

CCTEC currently takes some convertible notes in lieu of licensing fees from selected local startups.

The McGovern Center Director is developing a proposal for a modest fund to provide technology maturation support for client companies in the incubator. This would be expected to become an "evergreen" fund as has been demonstrated elsewhere, as at Cleveland Clinic.

MIT: Host of the donor funded Deshpande Center that provides technology maturation funding to selected applicants. Funding model for the Deshpande Center is not evergreen.

Stanford: Deploys some of the "profits" of its technology licensing office for technology maturation, competitively awarded. Also invests in some of its startups – e.g. Google.

7. *Focus on regional economic development*

Only **Cornell** puts a policy emphasis on promoting regional economic development. In upstate NY (and now in NYC) this is required for internal reasons (spousal jobs, etc.) and to garner state and public support. In Boston and the Bay area the impact of research institutions on the economic has long become systemic and does not need to be nurtured by specific university priorities and decisions.

8. *Commercial entity sponsored research funding and IP ownership issues*

a. *Organization of grants and contracts operations*

Cornell: OSP has been reorganized into teams in centers of expertise to submit proposals and negotiate agreements with different classes of sponsors. We now have a top quality team focused on industrial sponsors, with an experienced negotiator (law degree with experience in the commercial sector) to expedite agreements with industry.

MIT: Has long had a similar structure, organized by type of sponsor, in their grants and contracts offices.

Stanford: All industry funding flows through a team that is based in their Office of Technology Licensing. This team is separate from the IP licensing and marketing group in OTL but reports to the same manager (Kathy Ku). In practice this is quite similar to the situation at MIT and Cornell.

b. IP Ownership

In general, as regularly confirmed by interactions between Buhrman, JoAnne Williams, and Alan Paau with our counterparts at other leading research universities, Cornell's stance on IP ownership and licensing terms as negotiated in sponsored research agreements are very similar to those elsewhere, particularly including Stanford and MIT. As a general rule Cornell and our counterparts seek to retain ownership of the IP created by our researchers. We will in some instances grant non-exclusive royalty-free (NERF) licenses to sponsors who push for that, although that will generally destroy the commercial value of the IP. In other instances we agree to donate the IP to the public domain. Some institutions, most notably Penn State and Minnesota, have announced more "flexible" or generous approaches towards ceding IP ownership to industrial sponsors than is found in the approach taken by the leading universities. This stance creates the need of clearly separating federally funded research from that funded by commercial entities, that is ensuring that IP including background IP generated by different funding streams is not mixed. It also raises concerns regarding how universities can best ensure that the IP generated by their researchers, who are heavily supported by institutional resources in addition to sponsored funds, ends up being well employed for societal benefit rather than only for the narrow commercial interest of a private entity. Certainly Cornell and the other leading research universities are closely monitoring these alternative IP management approaches, but at present the overwhelming consensus remains that the principles of Bayh-Dole, and the related foundational concept that the institution that creates the IP should own and manage the IP, represent the best general approach for the institution and the nation. Cornell researchers are not highly trained "workers for hire" in a intellectual job shop.

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Guidelines for Addressing Potential Conflicts of Interest and Commitment in Faculty/Staff Involvement in Start-up Companies

A central mission of Cornell University is to provide benefit to society by bringing important scientific discoveries, technological innovations, and medical advances to the marketplace, training the next generation of researchers, and fostering the economic development of New York State and the nation. Consistent with the Bayh-Dole Act of 1980, the university encourages and supports the efforts of its faculty and other research personnel to participate in the development and dissemination of Cornell intellectual property (IP) by entering into relationships with existing business entities and startup companies.

Such relationships can take various forms including:

- Creating or inventing intellectual property (IP) that is licensed to a business entity by the University;
- Founding and/or taking a financial interest in a startup company that licenses University IP;
- Consulting/serving on advisory boards of the licensee;
- Receiving funding from a licensee to advance knowledge in areas related to that of the original IP or in new areas of research.

These relationships generally benefit the University, its faculty, staff, and students, as well as the public, by enhancing awareness of innovative research and accelerating its economic and societal impact, by helping to attract and retain faculty, and by providing job opportunities for its graduates. Such relationships, however, also may create real or apparent conflicts of financial interest and/or commitment. The University is committed to identifying and appropriately managing such conflicts to ensure the integrity of the research process, the unbiased and effective development of university IP, the protection of its students' ability to pursue their studies and research activities with appropriate independence and objectivity, and to support the appropriate entrepreneurial participation and external engagement of faculty and other research personnel.

The University and its faculty and staff have responsibilities to optimize technology transfer and successfully manage conflicts of interest and commitment. Guidelines for doing this are presented below.

University/CCTEC Responsibilities:

CCTEC is responsible for licensing Cornell IP to achieve the optimal fulfillment of the University's missions of research, education, and societal benefit, including the promotion of local and regional economic development. CCTEC is required to manage the licensing in a businesslike manner so as to obtain a fair return to the University for its investments in research, such as faculty salaries, facilities, and research cost sharing, and in technology transfer, and so as also to be able to provide shared benefit to the faculty/staff creators of the IP and the public. CCTEC licensing agreements may be exclusive or non-exclusive depending on what is most suitable for achieving technology transfer, promoting economic development, and providing societal benefit.

To promote local and regional economic development and/or to optimize transfer of the technology for societal benefit, CCTEC may give preferential consideration to a proposal to license technology to a faculty/staff start-up prior to offering the technology for licensing to other parties under the following conditions:

- There is an existing faculty/staff startup with a viable business plan, or if a faculty/staff member is contemplating a start-up and a written, viable business plan is provided to CCTEC within six months after a patent application has been filed on a technology that has been disclosed to CCTEC. The business plan must articulate the timeline and planned activities to develop the technology for specific market opportunities and identify the resources available to implement the commercialization of the technology in a competitive manner.

- After the six months time period has elapsed, preferential consideration will still be given to a proposal to license technology to a faculty/staff start-up upon provision of a written, viable business plan, provided that CCTEC's efforts to market the technology have not yet resulted in a license.
- The terms of the agreement are commercially reasonable.

  (This preference for faculty/staff start-ups, particularly those based in the local region, does not apply to any technology developed with NIH support that is considered a "research tool" under the guidelines of the National Institutes of Health (http://www.grants.nih.gov/grants/intell-property_64FR72090.pdf) and hence must be made broadly available to the public.)

CCTEC may not negotiate directly with Cornell faculty/staff who are associated with a potential licensee of Cornell IP.

The Ithaca Financial Conflict of Interest Committee (FCOIC) or/and the Weill Cornell Medical College (WCMC) Conflicts Advisory Panel (CAP), depending upon the affiliation of the inventor(s), must review any actions or proposed plans of action that present a potential financial conflict of interest, and the faculty/staff member's Dean must review any actions or proposed plans of action that present a potential conflict of commitment, as described below.

When CCTEC determines that a Cornell-associated startup is a potentially appropriate licensee, the following steps must be taken promptly:

- CCTEC documents and submits its rationale for the licensing decision and the proposed licensing agreement to the FCOIC/CAP and to the faculty/staff member's unit head.
- The faculty/staff member reports the existence or the promise of any interest (equity, options, consulting fees, etc.) in the startup to CCTEC, and provides an amendment to his/her annual on-line report to the FCOIC/CAP describing relevant financial interests in and commitment to the startup.
- The FCOIC/CAP reviews the CCTEC documentation and determine whether the real or apparent conflict associated with the faculty/staff involvement with the start-up can be managed. If the conflict of interest is deemed manageable the FCOIC/CAP must develop a conflict management plan (CMP) within three months of receipt of the CCTEC documentation and faculty/staff report. If the FCOIC/CAP determines that the conflict cannot be managed, it must so inform CCTEC and the faculty/staff member within three months of receipt of CCTEC documentation and faculty/staff report. For the Ithaca campus conflicts of commitment are determined and managed by the Deans of the various colleges. The FCOIC will provide the faculty/staff member's Dean with the CCTEC documentation and faculty/staff report. If the Dean determines that a conflict of commitment exists, he/she must also inform the faculty/staff member, CCTEC, and the FCOIC within three months of receipt of the CCTEC documentation and faculty/staff report. CCTEC may proceed with licensing the technology once the management plan is signed by the faculty/staff member(s) and, if appropriate to the campus, the Dean documents his/her determination regarding any potential conflict of commitment.

Research funding and restricted gifts

- The University may accept sponsored research or restricted gifts from a company in which a faculty/staff member has an interest that are to be used at the direction or discretion of that faculty/staff member, but only with the approval of the FCOIC/CAP and a management plan to oversee the use of the funds, and only with a prior written agreement with the university regarding the ownership and disposition of any intellectual property that may arise from the use of such funding.

Faculty/Staff Responsibilities:

Faculty and staff members must take special care to separate their university responsibilities for research and education from their engagement with and commitments to external entities (companies), including Cornell-associated startups, in which they hold a financial interest. Most conflicts of financial interest and commitment arising from faculty/staff involvement with a Cornell-associated startup can be successfully managed. The goal of the University and the faculty/staff should be to work collaboratively to develop an effective management plan that is transparent and protects the integrity of Cornell research, ensures compliance with applicable regulations and institutional policies, protects students' academic interests, fosters an open academic environment, and ensures the primary professional commitment of full-time faculty and staff to the university.

Faculty/staff must

- Separate and clearly distinguish the focus of ongoing university research and educational responsibilities from his/her involvement in any effort being conducted for the company.
- Limit consulting for the company to the maximum allowed by university and college policy.
- Preferably serve in advisory or consultative, rather than management, roles in companies. Full-time faculty may assume and retain managerial or executive roles or titles (e.g., CEO, CTO, CSO) in a startup that suggest or entail management responsibility but only when such roles or titles are specifically allowed in a CMP, which will also describe the circumstances under which such roles and/or titles must be ended, and have the signed approval of the faculty member's Dean; otherwise,
- Take an unpaid leave of absence when engaged in a management role at the company.

Faculty/staff may not

- Negotiate with the university on behalf of the company.
- Involve company personnel in Cornell research.
- Involve[1] university research staff or other university staff over whom the faculty/staff member has oversight or supervisory responsibility in professional activities at or for the company.
- Involve[1] students over whom a faculty/staff member currently has academic oversight responsibility in company activities. If a student asks to take a leave of absence or go *In Absentia* to participate in the company, the student must be referred to their department head or Dean for independent advice and review of the request. Student internships and coop assignments at the company may be appropriate with a FCOIC/CAP management plan.
- Assign students or Cornell staff over whom the faculty/staff member has any academic oversight or supervisory responsibility to sponsored projects funded by the company without the explicit approval of the FCOIC/CAP and a management plan to oversee the activities of the students/staff involved.
- Involve[1] junior faculty for whom a faculty member has supervisory responsibility, or has the authority to vote on tenure or otherwise provide assessment of performance, in company activities. Even if there is no supervisory role, faculty members must avoid situations in which junior faculty might feel expected to be involved.
- Use university facilities for company purposes, other than the routine use of the faculty/staff member's office and routine use of university library resources, without the written approval of the Senior Vice Provost for Research (Ithaca) or Senior Executive Vice Dean (WCMC) and, for Ithaca, also of the Dean of the college in which the resources are located, except under the conditions that are available to all commercial or industrial users.

    - The company may utilize university facilities that are available for commercial or industrial users, e.g., shared research facilities, on the same basis and with the same fee structure that is offered to any other commercial entity.
    - The company may occupy space in the McGovern Family Center for Venture Development in the Life Sciences if approved for occupancy through the process established by the McGovern Center Management and Advisory Council. Faculty may not negotiate or lobby for this approval on behalf of the company.
- Serve as PI/protocol director for human participant research that is related to the company's business activities or objectives, unless the rebuttable presumption for this prohibition is overcome and the CMP specifically addresses the conduct of such human participant research.
- Supervise faculty, staff, or students who are PI/protocol directors for human participant research related to the company's business activities or objectives unless the rebuttable presumption is overcome and the CMP specifically addresses the conduct of such human participant research.

For further information and specific guidance please contact your Office of Research Integrity and Assurance: www.oria.cornell.edu/COI/ (Ithaca) and http://www.med.cornell.edu/research/rea_com/ (Weill-Cornell Medical College).

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[1] "Involve" for the purpose of these guidelines does not include, for example, Cornell research activities not sponsored by the company but under the direction of the faculty member that are in the same general areas as those of interest to the company, nor public discussions of the results of such research in the presence of company staff. "Involve" for purposes of these guidelines is defined as any activity associated with the company, including, but not limited to planning, performing duties, assessing or testing ideas/materials/other business-related items, providing representation or support of/for the company, discussing any aspect of company business, and performing any research directly or indirectly for the company, regardless of time, compensation, or location.

“Best Practices” for Faculty Start-Ups

Stanford is committed to avoiding either perceived or actual conflict of interest issues with respect to faculty start-ups. Both Stanford and faculty have responsibilities to optimize technology transfer and mitigate COI when licensing Stanford IP to a faculty start-up is considered.

Survey: Top 10 Reasons For Failure Of University Start-Up Companies

University/OTL Responsibilities

Make licensing decisions based on OTL's professional judgment about technology transfer to achieve the best possible benefit to the public, without undue influence from internal or external parties.

To determine the most effective way to transfer the technology:

- OTL "markets" all Stanford technology to ensure fair and open access to potential licensees
  - Faculty start-ups should not receive or be perceived as receiving preferential treatment.
- Stanford faculty/employees are not allowed to represent the potential licensee and must not negotiate directly with OTL.
- The faculty's School Dean and the Dean of Research must review any actions that present a potential conflict of interest
  - If OTL, after thorough marketing, determines that a faculty-affiliated company is the appropriate licensee, OTL documents its marketing and rationale for its licensing decision
  - The faculty must disclose to the Deans any interest (consulting fees and/or options) in the start-up
  - The faculty must agree to separate University responsibilities from company responsibilities according to the criteria listed under Faculty Responsibilities
  - If the conflict is deemed manageable by the Deans based on this agreement with the involved faculty, OTL may proceed with the licensing.
- OTL licensing agreements may be exclusive or non-exclusive depending on what is most suitable for achieving technology transfer

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Faculty Responsibilities

Separate University duties for research and education from personal financial interests in the company.

Faculty must

- Separate and clearly distinguish on-going University research from work being conducted at the company
- Limit consulting for the company to a maximum of 13 days a quarter, per University policy
- Serve only in advisory or consultative roles at the company
  - Do not take managerial roles or titles (i.e CTO) suggesting management responsibility
- Take a leave of absence if engaging in a management role

Faculty must not

- Negotiate with the University on behalf of the company
- Receive gifts or sponsored research from the company
- Involve research staff or other University staff in activities at the company;
  - Company personnel cannot be affiliated with the University
- Involve company personnel in Stanford research
- Involve current students in company activities
  - If a student asks to take a leave of absence to participate in the company, refer the student to the School Dean for review of the request and independent advice
- Involve junior faculty in company activities for whom you have supervisory responsibility
  - Even if no supervisory role, avoid situations in which junior faculty might feel expected to be involved

- Use University facilities for company purposes
- Undertake human subjects research at the University as PI/protocol director
- Supervise faculty who are PI/protocol directors for human subjects research related to the company

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