

Proposed Revision of Patent and Tangible Research Property Policies

Intellectual property at the University is managed under separate policies for Patents and Inventions, Copyright and Computer Software. The current Patent Policy was ratified by the Trustees in 1966 and has served the University community since that time. The 1966 policy, drafted by a committee under the direction of Professor Louis Girifalco, was remarkably prescient and anticipated many situations and potential problems. During the last decade, however, there have been unprecedented changes in the nature of industry-university activity and, at the same time, a marked increase in both the number of projects and their dollar values. These changes came about in response to several factors: a series of Federal Technology Transfer Acts, starting in 1981, allowing universities to own, control and issue exclusive licenses; a drive towards re-building national competitiveness focusing on academic collaboration with industry; the biotechnology and information science revolutions which are firmly rooted in university research; and, finally, growing competition for what has been, when adjusted for inflation, a relatively static pool of federal dollars to support academic research. Together with sweeping changes in United States and international law governing patents and other intellectual property, these factors have led the University to re-examine and reformulate its policies and procedures for the management of intellectual property.

In this *For Comment* article, we propose new policies and procedures in draft form, governing Patents and Inventions, and Tangible Research Property.

Prior to beginning the work of developing the new policies, the staff of the Center for Technology Transfer was asked to survey the policies and procedures in place at other Ivy League and major research institutions with a special focus on: the "reach" of the institutions on inventions, the use of signed "participation agreements" by faculty and employees, the distribution of royalty income among inventors and within the institutions, and the acceptance of equity by the institutions and faculty in start-up companies to which technology is licensed. The results of this survey were carefully considered in formulating these new policies and procedures.

Earlier versions of the draft policies were reviewed by the Academic Planning and Budget Committee, the Provost's Council on Research, the Advisory Board of the Center for Technology Transfer, a special committee assembled by the faculty of the School of Engineering and Applied Science, and by an ad hoc committee of faculty appointed by the associate deans of the Schools of Arts and Sciences, Medicine, Engineering and Applied Sciences, and Veterinary Medicine. Additionally, the Current Draft Articles have been formally submitted to the Faculty Senate for comment, and were presented to an assembly of Medical School Faculty. Professor Robert Gorman of the Law School, an intellectual property scholar, also provided valuable comments.

The draft policies are long and complex. Here we briefly summarize the major issues they address and the major changes from the 1966 policy.

Article 1. Preamble: As part of the effort in creating the draft policies and procedures, we enumerated guiding principles drawn from our mission as a non-profit institution dedicated to education, research and service. The Preamble serves as a philosophical basis for the policies and procedures.

Article 2. Patents and Inventions: This Article includes many significant changes from the current policy. The major changes concern:

1. Reach of the policy statement
2. Creation of a Participation Agreement
3. Distribution of Royalty Income
4. Acceptance of equity
5. Faculty responsibilities in outside consulting

Below we present the rationale for each change:

1. Revisions to the Policy Statement. The new language specifically states that the University has the right of assignment as of the time an invention is made. This clarification is necessary because of the manner in which the United States Patent Office and the courts are interpreting patent law. In many instances, if the right of ownership is ambiguous as of the time an invention is made, a patent may not be allowable, or may

later be determined invalid. It is in the best interest of the faculty and the University to eliminate any ambiguity. In those circumstance where an invention would be rightfully the property of an inventor, the University can return the invention or disclaim ownership. Such protection for inventors is built into the Procedures, and an Advisory Board to the Center for Technology Transfer that includes faculty participants is also in place.

2. A Participation Agreement. Such an Agreement, to be signed by faculty, employees and certain students as an acknowledgment of our policies, formalizes the University's long standing ownership rights. Under U.S. Patent Law, such an Agreement is advisable. More importantly, the U.S. Technology Transfer Acts effectively require that such an Agreement be in place as assurance that universities can deliver rights that the government retains under the Acts. Most major research institutions have implemented or are in the process of implementing participation agreements. Some assert that eligibility for federal grants depends on the use of participation agreements. The implementation of the Participation Agreement at the University will begin after ratification of the entire Intellectual Property Policies and Procedures by the Trustees. A draft copy of the Participation Agreement appears as Appendix A.

3. Distribution of Royalties. This point is addressed in Section 2.3 (Appendix D contains the current distribution procedures). The proposed approach establishes a "level" share for the inventors and would bring the University into line with several other major research institutions. Moreover, most of the University's license agreements consist of large, complex estates of United States and international patents often covering many potential products. Applying a sliding scale to inventions licensed in such a manner is difficult; a level approach is a less ambiguous tool. The proposed policy also creates specific allocations of funds for the inventors' research activity; the inventors' department; the inventors' school and the Research Foundation. The current policy effectively does the same thing, but as a matter of principle as opposed to specific percentages. Administration of a growing portfolio of royalty producing licenses, in the absence of specific percentages, would be impractical.

4. Equity. Equity is increasingly offered by cash-poor start-up companies seeking licenses to University technology. Appendix C describes the conditions under which these transactions are allowed and managed. Most major research Universities are implementing similar principles.

5. Consulting Agreements. The current policy requires that faculty submit proposed consulting agreements involving inventions to the University for prior approval. This procedure is not practical. Section 2.6 eliminates the need for prior approval, but makes faculty responsible for protecting their duties to the University and the University's obligations to research sponsors when negotiating consulting agreements.

6. Tangible Research Property. In addition to the revised Patent Policy, the University must implement policies and procedures for the management of tangible research policy, as required by federal funding agencies. In fact, the NIH Policy was used as a model in the drafting of a University policy. This appears as Article 3.

7. Definitions. The Definitions (Article 4) are an integral part of the Policies and Procedures and merit a careful reading. Defined terms appear as all CAPS in the text.

Future Activity. Our next step with these draft policies will depend on the response to this *For Comment* publication. If major criticisms surface, a new draft addressing these criticisms will be published in *Almanac* prior to submission to the Trustees for adoption. Otherwise, this draft, possibly incorporating minor changes, will be submitted to the Trustees.

We hope that these remarks will be helpful to your reading of the draft policies. Please address any comments or criticism to the Office of the Vice Provost for Research, 217 College Hall/6381.

—Barry S. Cooperman, Vice Provost for Research
— Stephen M. Sammut, Director, Center for Technology Transfer

Article 1 Preamble to the Intellectual Property Policies and Procedures

1.0 The Trustees of the University of Pennsylvania affirm the following principles as the basis for governing the intellectual property created by faculty, employees, students and guest scholars of the University:

1.1 The mission of the University includes the stimulation of basic and applied research activities of faculty, employees and students of the University, and the dissemination of the results of their research for the purpose of adding to the body of knowledge and serving the public interest.

1.2 The University endeavors, where appropriate, to secure intellectual property protection for the products of such research and to encourage commercial investment in and development of University intellectual property for the benefit of the public.

1.3 The community has endowed the University with certain privileges, resources and assets in the expectation that no single party will derive sole benefit or be unjustly enriched from what the community has endowed to the University.

1.4 The University as a non-profit organization endeavors to marshal its resources and exploit its assets to serve the public interest, and in so doing reinvests in the research enterprises of its faculty, employees and students. Members of the University community share in the University's responsibility to serve the public interest, and therein have a duty to disclose and assign their inventions which may arise prior to, but no later than the time the inventions are made; and

1.5 The University is regularly the recipient of grants from the government, foundations or commercial enterprises for the support of research, and is subject to legal and contractual obligations imposed by these entities.

1.6 The University wishes to share the economic benefits of inventions or other intellectual property with the creators of such works in a way that is consistent with the research and educational mission of the University, and conforms to the University's obligations to regulatory authorities, research sponsors and licensees.

1.7 In protecting and managing its intellectual property assets, the University insists that the academic freedom of its faculty and students be preserved, and that collegiality and the open expression of ideas by and among members of the University community be encouraged

Having established the policies governing intellectual property at the University of Pennsylvania, the Trustees hereby decree as follows:

Article 2 Policy and Procedures on Inventions and Patents

- Section 2.0 Policy Statement on Inventions and Patents
- Section 2.1 Procedures for the Administration and Management of Inventions and Patents
 - Section 2.1.1 Participation Agreement
 - Section 2.1.2 Disclosure and Review
 - Section 2.1.3 Inventions Outside the Policy
 - Section 2.1.4 Student Inventions
 - Section 2.1.5 Return of Inventions
- Section 2.2 Conveyance of Rights
 - Section 2.2.1 License Agreement
 - Section 2.2.2 Types of License Agreements
 - Section 2.2.3 Exceptions to Licensing
- Section 2.3 Distribution of Income from Inventions and Patents
- Section 2.4 Implementation of the Procedures for Revenue Distribution
- Section 2.5 Administration of Royalty Distribution and Reporting
- Section 2.6 Outside Employment or Consulting Agreements
- Section 2.7 Leaves of Absence or Sabbaticals, Use of Outside Facilities
- Section 2.8 Publication Rights in Commercially Sponsored Research and License Agreement
- Section 2.9 Periodic Review of Policies and Procedures
- Section 2.10 Disputes Under the Policy and Procedures

2.0 Policy Statement on Inventions and Patents. It is the policy of the University that all INVENTIONS, together with associated materials, which are conceived or reduced to practice by INVENTORS in the course of employment at the University, or result from work directly related to professional or employment responsibilities at the University, or from work carried out on University time, or at University expense, or with substantial use of University resources under grants or otherwise, shall be the property of the University as of the time such INVENTIONS are conceived or reduced to practice. INVENTOR(s) shall assign to the University all right, title and interest in and to the INVENTIONS, MATERIALS and related

patents and shall cooperate fully with the University in the preparation and prosecution of patents. Patents, as they may be available on such INVENTIONS may be applied for in any country by the University. The University will exercise its ownership and management of such INVENTIONS, with or without economic benefit, with due regard for the principles set forth in the Preamble of this Policy. Procedures for implementation of this Policy, including a PARTICIPATION AGREEMENT, shall be developed and promulgated by the President of the University. Hereinafter, the foregoing text shall be referred to as the "PATENT POLICY." (January, 1966; restated, July, 1993)

2.1 Procedures for the Administration and Management of Inventions and Patents. The following procedures have been approved by the President as of the EFFECTIVE DATE:

2.1.1. Participation Agreement. All faculty, emeritus faculty, visiting faculty, researchers, adjunct faculty, post-doctoral employees, graduate students, and undergraduate students participating in sponsored research as employees or otherwise, and all salaried employees, shall be required to execute a PARTICIPATION AGREEMENT (Appendix A) as a condition of employment, participation in sponsored research or use of University resources. All students shall be advised of the University's intellectual property policies through publication of the policies in the manual, *University Policies and Procedures*.

2.1.2. Disclosure and Review. INVENTORS promptly shall file INVENTION DISCLOSURES for all INVENTIONS that satisfy the conditions of the PATENT POLICY with the INTELLECTUAL PROPERTY ADMINISTRATOR (IPA) of the University, who shall direct the review and management of the INVENTIONS under procedures and practices instituted and monitored by the ADVISORY BOARD.

2.1.3. Inventions Outside the Policy. All INVENTIONS shall be disclosed to the IPA. If an INVENTOR believes that a given INVENTION was made outside the scope of the PATENT POLICY, he or she may provide the IPA with a written statement of the circumstances leading to the making of the INVENTION. If, after a prompt assessment of the facts, the IPA determines that the INVENTION falls outside the scope of the PATENT POLICY, the IPA shall confirm in writing that the University has no right, title and interest to the INVENTION. If the facts are equivocal, or if the IPA reasonably believes that such INVENTION rightfully falls under the PATENT POLICY, the matter of ownership may be referred to the ADVISORY BOARD for a decision. The Advisory Board shall have procedures in place for the adjudication of such appeals.

2.1.3.1 As provided in Sections 2.6 and 2.7, INVENTIONS made in the course of outside consulting or employment activity, or while on official leave of absence or sabbatical, may under certain circumstances be subject to the PATENT POLICY.

2.1.4 Student Inventions.

2.1.4.1 INVENTIONS made by undergraduate students will remain the property of the students except when an INVENTION is made in the course of employment at the University, or results from work directly related to employment responsibilities at the University, or from work performed under a grant or other sponsorship, or undertaken with other INVENTORS who have a duty to make ASSIGNMENT to the University. In such instances, undergraduate students will make ASSIGNMENT to the University and will share in the distribution of royalties.

2.1.4.2 INVENTIONS made by graduate students in the course of employment at the University or research carried out in University laboratories as part of a post-baccalaureate or postdoctoral degree or non-degree program, or resulting from work directly related to the student's employment or research responsibilities at the University, or from work performed under a grant or other sponsorship, or undertaken with other INVENTORS who have a duty to make ASSIGNMENT to the University, shall be the property of the University and shall be subject to the PATENT POLICY. Any patent rights arising from a dissertation submitted as a part of the requirements for a degree shall be subject to the PATENT POLICY.

2.1.5 Return of Inventions.

2.1.5.1 Return of Inventions Made without Outside Sponsorship. If a given INVENTION is made without sponsorship of the federal government or other sponsor, and the University does not wish to pursue a patent application in the United States or other jurisdiction, or elects to abandon a pending patent application, or does not wish to own an issued patent on a given INVENTION, the IPA may, in consultation with the ADVISORY BOARD, return all right, title and interest to the patent application or issued patent to the INVENTOR(S) on a timely basis.

2.1.5.2 Return of INVENTIONS Made with Outside Sponsorship. If an INVENTION is made with sponsorship of the federal government or other sponsor, and the University does not wish to pursue a patent application in the United States or other jurisdiction, or elects to abandon a pending patent application, or does not wish to own an issued patent on a given INVENTION, and the United States Government or other sponsor waive ownership rights, if any, the IPA may, in consultation with the ADVISORY BOARD, return all right, title and interest to the patent application or issued patent to the INVENTOR(S) on a timely basis, subject to any other rights retained by the United States Government or other sponsors.

2.1.5.3 INVENTIONS may be returned on an unconditional basis, or with conditions appropriate to the circumstances.

2.1.5.4 If the University elects to return an INVENTION made by more than one INVENTOR, the University will return an undivided interest, as defined by prevailing United States patent law, to each INVENTOR, unless directed otherwise in writing by all INVENTORS.

2.1.5.5 In every case in which an INVENTION is returned to an INVENTOR, the University hereby reserves a royalty free, non-exclusive right to practice the INVENTION for research, educational or other purposes.

2.1.5.6 INVENTORS have the obligation to disclose to the IPA, and make ASSIGNMENT of, improvements on returned INVENTIONS at the time such improvements are made, if such improvements are made under circumstances subject to the PATENT POLICY.

2.2 Conveyance of Rights to Inventions

2.2.1 Licensing The University may convey rights to its INVENTIONS through license agreements under the terms of which the University retains all right, title and interest in and to its INVENTIONS, while granting to a commercial entity the right to make, use, and/or sell products based on the INVENTION(S). Such rights may be granted on an exclusive, field of use, or non-exclusive basis, or upon such other basis as applies, at the discretion of the IPA following a diligent evaluation of the scope of the technology and the capability of the prospective licensee.

2.2.1.1 INVENTORS or other University faculty or employees involved in the licensing of an INVENTION to a prospective licensee have a duty to disclose any fiduciary or financial interest in that prospective licensee to the IPA, who shall refer consideration of the matter to the ADVISORY BOARD.

2.2.2 Exceptions to Licensing. Exceptions to the requirement that rights be conveyed through a license agreement shall be considered only in extreme or unusual circumstances and shall require approval by the President of the University.

2.3 Distribution of Income from Inventions and Patents

2.3.1 NET ROYALTY INCOME and **NET EQUITY INCOME** shall be distributed as follows:

	<u>Net Royalty Income</u>	<u>Net Equity Income</u>
Inventor(s)	30.0% (See 2.3.1.1)	N/A (See 2.3.1.2)
Intellectual Property Fund (See 2.3.1.3)	<u>5.0%</u>	<u>5.0%</u>
Balance=Academic Income	65.0%	95.0%
Distribution of Academic Income		
Inventor's() Research Activity (See 2.3.1.4)	22.5% (to cap of \$500,000—"CAP A")	
Department(s) of Inventor(s) (See 2.3.1.5)	22.5% (to cap of \$200,000/ faculty member) in the department, but not to exceed \$5MM per department—"CAP B")	
School(s) of Inventor(s) (See 2.3.1.6)	27.5% (41.25% after CAP A) (55.0% after CAPS A & B)	
Research Foundation (See Note 2.3.1.7)	27.5% (36.25% after CAP A) (45.0% after CAPS A & B)	
Total Distribution of Academic Income	100.0%	

2.3.1.1 In general, the 30% share set aside for the INVENTORS will be divided equally among all INVENTORS (if more than one). If the INVENTORS agree among themselves to other than an equal distribution, or if the INVENTORS desire that other individuals not named on the patent(s) should receive a portion of royalties, they may so inform the IPA by written notice signed by all INVENTORS clearly stating the proposed distribution and the reasons for the proposed distribution.

2.3.1.1.1 If a given INVENTOR ceases employment at the University, his or her designated personal share shall remain payable to such INVENTOR. A designated personal share shall

be payable to the estate of an INVENTOR upon death.

2.3.1.2 In limited instances, the University may enter license agreements in which the University agrees to accept equity in lieu of up-front cash license fees. The rules governing receipt of equity in licensing transactions are set out in Appendix C. The INVENTORS will receive their shares of equity directly from the licensee and shall receive no further personal share from those equity shares issued directly to the University.

2.3.1.3 The share received by the INTELLECTUAL PROPERTY FUND may be used solely to support the cost of procuring, protecting and maintaining intellectual property rights. This share may not be used to support the annual operating expenses of the CTT. The IPA shall prepare a report for the ADVISORY BOARD at the end of each fiscal year describing the source and use of funds.

2.3.1.4 The share designated for the research activity of the INVENTOR(s) must be used only for research purposes through a budget approved by the Dean(s) of the relevant School(s). The share is exempt of indirect costs.

2.3.1.4.1 The share designated for the research activity of the INVENTORS will be divided equally among the INVENTORS unless the IPA receives written notice signed by all INVENTORS to the contrary.

2.3.1.4.2 If a sole INVENTOR leaves the University, the share designated for his or her research activity shall be paid to the INVENTOR's School to support research in the School. If there is more than one INVENTOR, and one of those INVENTORS leaves the University, that share shall be distributed evenly to the research activity of the INVENTOR(s) who remain. If no INVENTORS remain at the University, that share designated for the Laboratory will be paid to the INVENTORS' School(s) to support research in the School(s).

2.3.1.4.3 The cap of \$500,000 ("CAP A") is the total amount to be made available for the laboratories of all involved INVENTORS, and it is administered on the basis of total income collected from all licenses for a given patent or set of related patents. If, for example, two or more INVENTIONS by an INVENTOR or group of INVENTORS are licensed to different licensees on a non-exclusive basis, the cap is still \$500,000. CAP A does not reset for each patent or license. On the other hand, if an INVENTOR or group of INVENTORS later make new INVENTIONS that are the basis for a new license or licenses, these would constitute a new royalty stream with a new \$500,000 cap. The \$500,000 cap will be indexed to inflation and will be adjusted every five years.

2.3.1.5 The share designated for the Department(s) of the INVENTOR(s) must be used only for research purposes through a budget approved by the Dean(s) of the relevant School(s).

2.3.1.5.1 If an INVENTION is made by INVENTOR(S) within a Division, Research Center or Institute, the Department(s) of the INVENTOR(S) may make an equitable distribution of income to that Division, Research Center, or Institute from the share designated for the Department(s).

2.3.1.5.2 If an INVENTION is made by INVENTORS from different Departments, each Department will receive a portion of the total share based on the number of INVENTORS in the Department, regardless of how INVENTORS may designate proportional sharing of their personal shares or laboratory shares. Similarly, a Department will retain its share if an INVENTOR from that Department leaves the University.

2.3.1.5.3 The cap of \$200,000 per faculty member ("CAP B") shall be based on the number of full-time, salaried standing and research faculty in the Department as of October 1 of the year during which the licensed INVENTION was first disclosed. If more than one INVENTION is licensed in a given license agreement, CAP B is based on the year of the earliest disclosed INVENTION.

2.3.1.5.4 If an INVENTION is made by INVENTORS from two or more different Departments, the share designated for the Departments will be divided among the Departments in proportion to the number of faculty INVENTORS until each department reaches its respective Cap B. For example, assume that there are three INVENTORS from Departments X, Y and Z, with 10, 15 and 25 faculty members (50 total) respectively. In this case, up to \$10MM would be distributed to the Departments. Departmental income up to \$6MM would be divided equally among the three Departments. The next \$2MM would be split evenly between Departments Y and Z. The final \$2MM of departmental income would be received by Department Z.

2.3.1.5.5 Cap B is the total amount to be made available for the Departments of all involved INVENTORS, and it is administered on the basis of total income collected from all licenses for a given patent or set of related patents. If, for example, two or more INVENTIONS by an INVENTOR or group of INVENTORS are licensed to different licensees on a non-exclusive basis, the cap is still \$200,000 per faculty member in the Department up to the \$5MM limit. Cap B does not reset for each patent or license. On the other hand, if an INVENTOR or group of INVENTORS later make new INVENTIONS that are the basis for a new license or licenses, these would constitute a new royalty stream with a new cap. At the discretion of the Departments, a portion of the Departmental share may be used to support the research activity(ies) of the INVENTOR(S). The \$200,000 cap and the \$5MM limit will be indexed to inflation and will be adjusted every five years.

2.3.1.6 The share received by the School(s) of the INVENTOR(S) may be used for any research purpose designated by the Dean(s) of the School(s). At the discretion of the Dean(s), any portion of the School's share may be distributed to Department(s) of the INVENTOR(S) or used to support the research activity of the INVENTOR(S).

2.3.1.6.1. If an INVENTION is made by INVENTORS from different Schools, each School will receive a portion of the total share based on the number of INVENTORS in the School regardless of how the INVENTORS may designate proportional sharing of their personal shares or laboratory shares. Similarly, a School will retain its share if an INVENTOR from that School leaves the University.

2.3.1.7 The Research Foundation share shall be used for the general support of research at the University, as provided by the Research Foundation rules. The Research Foundation will release periodic reports describing the source and use of funds.

2.4 Implementation of Procedures for Income Distribution. In order to provide for uniformity in the administration of the University intellectual property program, the following rules shall apply to the distribution of royalties and equity in Section 2.3:

2.4.1 All INVENTION DISCLOSURES made after the EFFECTIVE DATE shall be subject automatically to the procedures in Section 2.3, unless such an INVENTION DISCLOSURE is already subject to the terms of a license agreement in place prior to the EFFECTIVE DATE.

2.4.2 For INVENTION DISCLOSURES made prior to the EFFECTIVE DATE, but not yet subject to a license agreement as of the EFFECTIVE DATE, Section 2.3 shall govern the distribution of revenues.

2.4.3 For license agreements in place as of the EFFECTIVE DATE that have already generated royalties shared with an INVENTOR and his or her laboratory, the INVENTOR may elect in writing (before the first distribution of royalties received by the University after the EFFECTIVE DATE) to have the license administered under Section 2.3. Because it is in the best interest of the University to administer its patent estate under one set of procedures, the University, as an incentive for this election, will not require a reconciliation of royalties already distributed to the INVENTOR and his/her laboratory against what the entitlement would have been under Section 2.3. From the point of election forward, Section 2.3 will apply. If more than one INVENTOR is involved, election of the provisions of Section 2.3 must be unanimous by all INVENTORS.

2.4.4 INVENTION DISCLOSURES made after the EFFECTIVE DATE that are subject to the terms of a license agreement in place before the EFFECTIVE DATE, will have royalties administered under the APRIL, 1981 PROCEDURES (See Appendix E), unless the INVENTORS(s) elect the provisions of Section 2.3.

2.4.5 For those license agreements in place before the EFFECTIVE DATE where the INVENTORS have elected administration under the provisions of Sections 2.4.3 or 2.4.4, the Department(s), the School(s), the Research Foundation and the Intellectual Property Fund will participate as of the date of election.

2.5 Administration of Royalty Distribution and Reporting. Royalty distributions, with a report accounting for costs charged against the royalties, will be made to each party within 30 days of the end of the quarter (March 31, June 30, September 30, December 31) during which royalties are received. The University will not pay interest on royalties received and held by the University pending distribution.

2.6 Outside Employment or Consulting Agreements. In order to protect the University, its faculty, employees and students against possible conflicts between the obligations of faculty, employees and students under

the intellectual property policies of the University (including obligations to research sponsors) on the one hand, and obligations assumed in connection with outside employment of any nature, including services as a consultant, on the other, the following procedures shall be observed by faculty, employees and students before entering into any agreement with respect to any outside activity which provides for or contemplates the grant of any intellectual property rights arising out of such employment to the outside organization or individual:

2.6.1 Faculty, employees and students shall provide written reports on outside activity in accordance with the University Conflicts of Interest Policy and other related policies, or procedures established by their School and/or Department.

2.6.2 Consulting Activity with a Company Providing Sponsored Research. If a faculty member, employee or student has a consulting relationship with a company that sponsors research for that individual at the University, the proposed arrangement should be disclosed to the IPA along with an explanation of the nature and scope of the individual's anticipated duties. The IPA shall refer the matter to the Conflicts of Interest Committee of the ADVISORY BOARD for a timely review. The Committee shall make recommendations to the Vice Provost for Research concerning the proposed agreement. The Vice Provost for Research shall have the authority to approve or disapprove such proposed or modified agreements.

2.6.3 Consulting Activity with a Company Not Providing Sponsored Research.

2.6.3.1 When faculty, employees and students of the University are engaged in activity outside the University, they have a duty to protect the intellectual property rights of the University and the ability of the University to fulfill its obligations to federal funding agencies and commercial and non-commercial sponsors of research.

2.6.3.2 In advance of signing any agreement or contract with a company that does not sponsor research at the University conducted by the faculty member, employee or student in question, the individual contemplating outside activity shall ensure that his/her obligations to the University's intellectual property policies and procedures are not compromised, and that the University's obligations to outside entities sponsoring research at the University are protected. Furthermore, in the context of academic research, it may be difficult to avoid the commingling of research activity or resources with services provided under a consulting agreement. If the faculty member, employee or student reasonably believes that his/her contemplated activities may compromise the University's obligations to research sponsors, the arrangement under consideration should be modified by the faculty member, employee or student to protect obligations to the University and its research sponsors. When negotiating consulting agreements, faculty and employees of the University must differentiate between the scope and field of their academic research and the services to be provided under the consulting agreement. Specific issues that potentially compromise the University's obligations to outside sponsoring agencies include but are not limited to:

2.6.3.2.1 Confidentiality obligations that potentially prevent the consultant from publishing research, or from reporting results of their University research to their sponsors. Additionally, confidentiality provisions may prevent the consultant from providing TANGIBLE RESEARCH PROPERTY or other deliverables to their University research sponsor or other groups as required under federal regulations.

2.6.3.2.2 Outside consulting agreements that require that any inventions made under the consulting arrangement be assigned to the company might be construed to prevent a consultant from assigning inventions to the University owned under the PATENT POLICY.

2.6.3.3 Consulting arrangements designed to circumvent University policies and procedures for the transmittal, review and approval of sponsored research projects, as well as intellectual property rights, are specifically prohibited.

2.6.3.4 Faculty members, employees and students should not engage in consulting activities to an extent that detracts significantly from their normal academic duties. These commitments, in the aggregate, must not exceed the number of days allowed by University, School or Departmental policy, whichever is less. If more than one consulting relationship is considered, time expectations in any one agreement must take account of the aggregate amount of time committed in all agreements.

2.6.3.5 Faculty and other employees may seek the assistance of the IPA in determining whether a proposed agreement conforms

to these guidelines. Such assistance shall not be construed to be advice or counsel as to the faculty member's personal interests in the consulting agreement.

2.6.4 Liability. Faculty members, employees or students acting as independent consultants to outside companies or organizations are not protected by the University's general professional liability insurance. It may be advisable for faculty members, employees and students to retain personal legal counsel, at their own expense, for the purpose of reviewing proposed consulting agreements to protect their personal interests.

2.6.5 Additional Policy Information. Faculty members, employees and students are also referred to Part 5 of "Policy Information for Potential Commercial Sponsors of Research at the University of Pennsylvania," as published in *Almanac* on May 17, 1983, and re-produced in the *Research Investigators' Handbook*.

2.7 Leaves of Absence or Sabbaticals, Use of Outside Facilities.

2.7.1 INVENTIONS made by faculty, employees or students while on sabbatical or on an official leave of absence shall be disclosed to the IPA if the INVENTION results from work directly related to professional or employment duties at the University, or from work made at University expense or with substantial use of University resources under grants or otherwise. Faculty members, employees or students who expect to conduct research during their leave of absence or sabbatical at another institution or company are referred to the provisions of Section 2.6 herein.

2.7.2 Faculty members, employees or students sometimes make substantial use, on a guest basis, of research facilities at another institution or a corporation. These institutions or corporations may assert ownership rights to the intellectual property made at their facilities. In order to preserve a strong work relationship with the host organization, faculty members, employees or students engaged in research likely to lead to an INVENTION should acquaint themselves with the policies and procedures of the host organization. In those instances where a faculty member, employee or student believes that a host organization's policies and procedures might compromise obligations to sponsors of that individual's research, the individual is encouraged to contact the IPA for assistance. Graduate students who are conducting research in commercial research facilities on a guest basis should obtain a written assurance of their right to publish the results of their research.

2.8 Publication Rights in Commercially Sponsored Research and License Agreements.

Because the University is committed to the advancement and dissemination of knowledge, any practice that would restrict the publication of results of research carried out at the University is unacceptable. However, the protection and development of INVENTIONS may, under certain circumstances, require a brief delay in the publication of research results. If a company wishes to sponsor research or enter a license agreement with the University, the practice with respect to publication of research results shall be as follows: First, the sponsor must agree that the research results may be published if so desired by the INVESTIGATORS or INVENTORS. Second, in order that intellectual property rights not be jeopardized, the University may agree that any proposed publication will be submitted to the sponsor with notice of intent to submit for publication. If, within a period of up to sixty (60) days from the INVESTIGATOR OR INVENTOR shall be free to proceed immediately with publication. If the sponsor notifies the University that a delay is needed to prepare and file a patent application, the submission of the manuscript for publication may be postponed up to an additional sixty (60) days. The aggregate of the notice period and the patent preparation period, however, may not exceed ninety (90) days. Such a delay will permit the securing of intellectual property rights, but not unduly interfere with the dissemination of scientific knowledge.

2.9 Periodic Review of Policy and Procedures. The ADVISORY BOARD shall review the PATENT POLICY and these related procedures from time to time to determine whether they are accomplishing their intended purpose and are in conformity with applicable laws and regulations, including intellectual property. The ADVISORY BOARD shall make recommendations for amendments or other changes to the Provost and the Executive Vice President, who shall confer with the President.

2.10 Disputes Under Policies and Procedures. Disputes arising from the interpretation or administration of the PATENT POLICY and these related procedures may be referred to the IPA who will promptly notify the Chair of the ADVISORY BOARD of the dispute. The ADVISORY BOARD shall provide an equitable mechanism for the review and resolution of disputes brought before it, and shall have the authority to make a judgment with respect to such disputes. The judgment of the ADVISORY BOARD may be appealed to the President, who will make a final decision for the University.

Article 3 Policy and Procedures Relating to Tangible Research Property

Section 3.0 Policy Statement of Tangible Research Property
Section 3.1 Procedures Relating to Tangible Research Property

3.0 Policy Statement on Tangible Research Property. The Trustees of the University of Pennsylvania declare it to be the policy of the University that TANGIBLE RESEARCH PROPERTY made by INVESTIGATORS in the course of employment at the University, or work directly related to professional employment responsibilities at the University, or work carried out on University time, or at University expense or with substantial use of University resources under grants or otherwise is the property of the University. INVESTIGATORS shall assign to the University all right, title and interest in and to the TANGIBLE RESEARCH PROPERTY and shall cooperate fully with the University in the preparation and prosecution of patents, if applicable. The University and INVESTIGATORS will endeavor to make such property available to the research community on a reasonable basis. Procedures for the implementation of this Policy Statement and the means by which the University and inventors of TANGIBLE RESEARCH PROPERTY may meet their obligations to the research community shall be developed and promulgated by the President.

3.1 Procedures for the Administration and Management of Tangible Research Property. The following procedures have been approved by the President as of the EFFECTIVE DATE:

3.1.1 TANGIBLE RESEARCH PROPERTY may be made available to other researchers in any of three ways:

3.1.1.1 The inventor of the TANGIBLE RESEARCH PROPERTY may provide material directly from his or her laboratory upon written request from another researcher. The CTT will provide agreement forms for this purpose which must be used when transferring materials to such researchers. Investigators may charge the requester, if desired, for the reasonable cost of production, packaging and shipping of TANGIBLE RESEARCH PROPERTY; or

3.1.1.2 By depositing the TANGIBLE RESEARCH PROPERTY in repositories such as the American Type Culture Collection, or in the case of unique biological information such as DNA sequences or crystallographic coordinates, by submission to appropriate data banks. INVESTIGATORS are encouraged to include pertinent information on the nature and characteristics of the TANGIBLE RESEARCH PROPERTY when it is submitted; or

3.1.1.3 By licensing the TANGIBLE RESEARCH PROPERTY to a commercial entity through the CTT. If such TANGIBLE RESEARCH PROPERTY is patentable or the subject of a patent application, revenues from licensing will be distributed in accordance with the provisions in Section 2.3. If such TANGIBLE RESEARCH PROPERTY is not patentable, revenues derived from such licenses will be returned to the laboratory of the INVESTIGATOR for research purposes exempt of indirect costs, after a deduction of an administrative charge, not to exceed 20%, by the CTT. License revenues paid to a laboratory for TANGIBLE RESEARCH PROPERTY are generally considered program income if the grant under which the TANGIBLE RESEARCH PROPERTY was developed is still in effect. In such instances, the INVESTIGATOR shall report such income to the funding agency.

3.1.2 INVESTIGATORS shall protect the privacy and confidentiality of donors or subjects who provided any biological material that is the basis for TANGIBLE RESEARCH PROPERTY. Specimens derived from humans shall be procured in accordance with University policies and procedures relating to human subjects. Identifying codes linked to the donors or subjects shall be carefully protected or avoided.

3.2 Review of Policy and Procedures. The ADVISORY BOARD together with the Vice Provost for Research shall review the Policy Statement on TANGIBLE RESEARCH PROPERTY and these related procedures from time to time to determine whether they are accomplishing their intended purpose and are in conformity with applicable laws and regulations, including intellectual property laws. The ADVISORY BOARD shall make recommendations for amendments or other changes to the Provost and the Executive Vice President, who shall confer with the President.

3.3 Disputes Under Policies and Procedures. Disputes arising from the interpretation or administration of the Policy Statement on TANGIBLE RESEARCH PROPERTY and related procedures may be referred to the IPA who will promptly notify the Chair of the ADVISORY BOARD. The ADVISORY BOARD shall provide an equitable mechanism for the review and resolution of disputes brought before it, and shall have the authority to make a judgment with respect to such disputes. The judgment of the Board may be appealed to the President, who will make a final decision for the University.

Article 4 Definitions

4.0 Defined terms in this Section 4.0 apply to the PATENT POLICY and the Procedures. As an inherent part of the PATENT POLICY, these definitions may be modified only by an act of the Trustees of the University of Pennsylvania.

4.0.1 ASSIGNMENT means the execution of a written agreement by an INVENTOR confirming the University's right, title and interest in and to an INVENTION. INVENTIONS are assignable as of the time they are conceived or reduced to practice.

4.0.2 EFFECTIVE DATE means *July 1, 1993*.

4.0.3 INVENTION means and includes technical information, trade secrets, developments, discoveries, know-how, methods, techniques, formulae, data, processes and other proprietary ideas.

4.0.4 INVENTOR(s) means University faculty, emeritus faculty, visiting faculty, adjunct faculty, post-doctoral employees, or other employees, or students, or others who individually or jointly make an INVENTION subject to the POLICY and who meet the criteria for inventorship under United States patent law and rules.

4.0.5 MATERIALS means lab notebooks, records, drawings, sketches, photographs, radiographs or other images, models, biological specimens, chemical samples, or other materials needed to support the preparation, submission, prosecution, defense or enforcement of a patent in the United States or other applicable jurisdictions.

4.0.6 PARTICIPATION AGREEMENT means a written agreement in the form of Appendix A to the POLICY, setting out rights and responsibilities of University faculty, emeritus faculty, visiting faculty, adjunct faculty, post-doctoral employees and or other salaried employees, students, and others under the University's policies and procedures.

4.0.7 TANGIBLE RESEARCH PROPERTY means unique research products such as biological materials or chemical moieties. Categories of biological material include organisms, cells, viruses, cell products, cloned DNA, as well as DNA sequences, mapping information and crystallographic coordinates. Some specific examples of biological materials include specialized and/or genetically defined cells, including normal and diseased human cells; monoclonal cell lines; hybridoma cell lines; microbial cells and products; viruses and viral products; recombinant nucleic acid molecules; DNA probes; nucleic acid and protein sequences; and transgenic mice or other animals. Categories of chemical moieties or engineered products include sample compounds, reagents, intermediates, models, sensors, devices, equipment, computer hardware or firmware, diagrams, or computer media.

4.1 Defined terms in this Section 4.1 apply to the Procedures. As an inherent part of the Procedures, these definitions may be modified only by the President of the University.

4.1.1 ACADEMIC INCOME means those revenues available for distribution to the research activity of INVENTORS, the Departments of INVENTORS, the Schools of INVENTORS and the Research Foundation.

4.1.2 ADVISORY BOARD means the Advisory Board of the CTT as appointed by the Provost of the University. The mission and composition of the ADVISORY BOARD are set out in Appendix B.

4.1.3 APRIL, 1981 PROCEDURES means the royalty distribution provisions in effect until the EFFECTIVE DATE of these policies. The APRIL, 1981 PROCEDURES may apply to certain INVENTIONS licensed before the EFFECTIVE DATE, and are attached to these policies as Appendix D.

4.1.4 CENTER FOR TECHNOLOGY TRANSFER (CTT) means the administrative unit, under the direction of the INTELLECTUAL PROPERTY ADMINISTRATOR, which is responsible for the receipt, review, management and administration of intellectual property matters of the University.

4.1.5 INTELLECTUAL PROPERTY ADMINISTRATOR (IPA) is the managing director of the CTT and has been authorized by the President of the University to act as the agent of the Trustees of the University of Pennsylvania with respect to intellectual property matters, and shall be responsible for the administration the University's intellectual property policies and procedures. The IPA shall have signatory authority for the following: confidentiality, material transfer and tangible research property agreements, interinstitutional patent management agreements, licenses and related documents, and sponsored research agreements related to licenses (with the approval of the Executive Director, Office of Research Administration); documents for the United States and foreign patent offices, powers-of-attorney intellectual property documents and related documents, intellectual property assignments, documents or letters returning title to government entities or research sponsors, or INVENTORS; and, such other contracts or documents as may apply to the management of intellectual property.

4.1.6 INTELLECTUAL PROPERTY FUND means the account under the supervision of the control of the Vice President for Finance of the University for the patent, legal, transactional, and out-of-pocket expenses associated with building, maintaining and enforcing the intellectual property estate of the University.

4.1.7 INVENTION DISCLOSURE means submission to the IPA, on standard invention disclosure forms provided by the CTT, of a written description of any INVENTION that an INVENTOR believes he or she has made.

4.1.8 INVESTIGATOR means any University faculty member, employee or student engaged in sponsored or unsponsored research.

4.1.9 NET EQUITY INCOME means the proceeds realized from the sale of stock or dividends received by the University in a license agreement, net of: all historic and on-going patent and legal costs related to given patents, patent applications or other technologies licensed, including the cost of litigation or other disputes; other related legal costs, including copyright or trademark protection; related transactional costs; finder's fees or commissions; moneys paid or due under an agreement with patent management organizations; moneys due under agreements with other entities that jointly own licensed technologies; moneys paid or due third parties as a result of settlement of a dispute or judicial judgment, and, other out-of-pocket costs, including direct costs related to the licensing of the technologies, brokerage fees, commissions, applicable taxes, or other expenses.

4.1.10 NET ROYALTY INCOME means the revenues received as cash from license agreements as payment for up-front license fees, license maintenance fees, minimum royalties, sublicense fees, royalties on sales of products, settlements of lawsuits, and the like, net of: all historic and on-going patent costs related to given patents, patent applications or other technologies licensed, including the cost of litigation or other disputes; other related legal costs, including copyright or trademark protection; related transactional costs; finder's fees or commissions; moneys paid or due under an agreement with patent management organizations; moneys due under agreements with other entities that jointly own licensed technologies; moneys paid or due third parties as a result of settlement of a dispute or judicial judgment and, other out-of-pocket costs, including direct costs related to the licensing of the technologies. Cash payments received specifically for the purpose of patent reimbursement are not included as NET ROYALTY INCOME, but will be applied against the costs associated with a license agreement and thereby increase the amount of NET ROYALTY INCOME available for distribution. Payments made by a licensee specifically to support research are specifically excluded as revenues for the purpose of determining NET ROYALTY INCOME.

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Appendix A. Draft Participation Agreement

The President and the Trustees of the University of Pennsylvania adopted on _____ a restated Policy and Procedures on Inventions and Patents and a new Policy and Procedures on Intangible Research Property (collectively, "Policies and Procedures"). These Policies and Procedures apply to faculty, employees and students of the University, and in particular to anyone who participates in externally sponsored programs. Additionally federal agencies and commercial sponsors require the University to obtain written agreements from participants in programs they sponsor regarding the obligations of participants for disclosure and assignment of inventions.

Agreement

In order that the University may fulfill legal and contractual obligations to sponsors of research, and in consideration of my employment by the University, or my participation in sponsored research, and my use of funds, facilities, or other resources provided by the University, I hereby agree as follows:

1. I have read, and I understand and agree to be bound by, the terms of the Policies and Procedures, a copy of which is appended to this Agreement, as well as by the terms of any revisions or amendments adopted by the President and/or the Trustees of the University. I understand that words appearing as all capitalized letters in this Agreement are used as defined in the Policies and Procedures.

2. I agree to report to the INTELLECTUAL PROPERTY ADMINISTRATOR ("IPA") any INVENTION which is conceived or reduced to practice in the course of employment at the University, or from work directly related to professional or employment responsibilities at the University, or from work carried out on University time, or at University expense, or with University resources under grants or otherwise. I also agree to assign in writing to "The Trustees of the University of Pennsylvania" all right, title and interest in and to any such INVENTION.

3. I acknowledge that any TANGIBLE RESEARCH PROPERTY which is made in the course of employment at the University or from work directly related to professional or employment responsibilities at the University,

or from work carried out on University time, or at University expense, or with University resources under grants or otherwise is the property of the University. I also agree to assign in writing to "The Trustees of the University of Pennsylvania" all right, title and interest in and to any such TANGIBLE RESEARCH PROPERTY.

4. I understand that the University incurs binding obligations to sponsors under the terms of sponsored research agreements. When I participate in sponsored research, I understand that it is my responsibility to ascertain and abide by the terms of the sponsored research agreement as it relates to me. In particular, when engaged in outside activity, such as consulting, I recognize my duty to protect the University's obligations to its research sponsors.

5. I also understand that on occasion University policy or the University's obligations to research sponsors may require that I assign my interest in copyrightable materials to the University. In such cases, I agree to assign all right, title and interest in and to such materials to "The Trustees of the University of Pennsylvania." I further understand that, in agreements with external sponsors, the University seeks to retain copyrights for its faculty.

6. I will cooperate fully with the University or in the preparation and prosecution of patents, in the registration of copyrights and in the preparation and execution of all documents necessary or incidental thereto.

7. I accept the provisions for the sharing of royalties in the Policies and Procedures as stated, and as amended from time to time.

8. I am under no obligation to any person, organization or corporation with respect to any INVENTIONS or copyrightable materials which is, or could be reasonably be construed to be, in conflict with this Agreement.

9. I agree that this Agreement is effective as of the first date of my employment, appointment or matriculation, as the case may be, and applies to any INVENTIONS or copyrightable materials made during the time I am employed by the University, hold an appointment or continue to matriculate.

Signature _____
Printed Name _____
Date _____

Appendix B.

Duties and Composition of the Advisory Board to the Center for Technology Transfer

Mission: The Advisory Board was established in October, 1990 by the Provost and the Executive Vice President of the University to oversee the technology transfer activities of the University. Specifically, the Advisory Board is responsible for:

1. Determining the present and future role of the CTT, and the scope of its services to the University. This responsibility is managed by the Role Committee of the ADVISORY BOARD, which is chaired by the Vice Provost for Research and includes several faculty members. It is staffed by the INTELLECTUAL PROPERTY ADMINISTRATOR.

2. Reviewing intellectual property policies and their administration by the INTELLECTUAL PROPERTY ADMINISTRATOR and the CTT. This responsibility is managed by the Policy Committee of the Advisory, which is chaired by the General Counsel and has, as additional members, representatives of the faculty and administration. It is staffed by a deputy of the INTELLECTUAL PROPERTY ADMINISTRATOR.

3. Reviewing conflicts of interest that may arise in connection with the transfer of technology. This responsibility is managed by the Conflicts of Interest Committee of the ADVISORY BOARD, which is chaired by an Associate Dean for Research of the School of Medicine, and has, as additional members, representatives of the faculty and administration. It is staffed by a deputy of the INTELLECTUAL PROPERTY ADMINISTRATOR.

4. Reviewing and approving the management procedures of the CTT; monitoring the quality and fairness of the services provided by the CTT to the University; and reviewing the effectiveness of the CTT in supplementing

research resources at the University. This responsibility is managed by the Portfolio Committee of the ADVISORY BOARD, which is chaired by the Executive Director, Sponsored Programs and has, as additional members, participants from the faculty and administration. It is staffed by a deputy of the INTELLECTUAL PROPERTY ADMINISTRATOR.

Composition: The Advisory Board is composed of the following members:

Chairman, ex officio, Vice Provost for Research
Secretary, ex officio, INTELLECTUAL PROPERTY ADMINISTRATOR

Vice Provost for Information Systems and Computing
Associate Dean for Natural Sciences, SAS
Associate Dean for Research, SEAS
Associate Dean for Research, School of Medicine
General Counsel

University Treasurer
Executive Director, Sponsored Programs
Associate Executive Vice President, School of Medicine
Six faculty members drawn from several schools for a two year term.

(These faculty shall be appointed by the Provost on the recommendation of the relevant Deans.)

Other Responsibilities: As defined in the intellectual property policies and procedures of the University.

Appendix C. Rules Governing Equity Transactions in License Agreements

C.1 Licenses to Newly Established Companies. The principal purpose of licensing activity at the University is to promote the development of technologies to serve the public interest. If after a diligent effort to identify prospective licensees, the IPA determines that the public interest is best served by a license to a newly formed company, the IPA may pursue such a license, provided that the newly formed company can demonstrate

management and technical capability, and has acquired or is likely to acquire the financial resources necessary to meet its developmental objectives and its obligations to the University. The IPA may accept equity in the newly established company for the University in lieu of up-front license fees, provided that the equity represents a fair valuation for the technology. The IPA shall include in each license to a newly established company measures

of performance that must be met in order to maintain the license granted by the University. The IPA shall also include in the license all other provisions to which established companies would be subject.

C.1.1 LICENSE AGREEMENTS involving equity must be structured to avoid violations of Conflicts of Interest Policies of the University and any guidelines on conflicts of interest promulgated by the IPA shall inform the Provost, the Vice Provost for Research, and the relevant Dean(s) and Chairpersons, the General Counsel, the Office of Research Administration and the involved INVENTOR(S) in writing of the proposed terms of the agreement and of any potential conflicts of interest. The University and the relevant Deans may impose limitations on the proposed license agreement, associated sponsored research agreement or create an oversight mechanism for the relevant INVENTORS.

C.1.2 The University will require the prospective licensee to disclose the full number of shares or stock options that will be made available to the University and its INVENTORS, along with the specific terms and conditions associated with the given securities. This allotment will be called the EQUITY POOL. As a general principle, the University should receive at least one-half but no more than three-quarters of the equity pool. In determining whether a proposed distribution meets with these guidelines, the IPA will take into account the University's expenses associated with the patents and the transaction, the prior level of research support for the project, the role and activity of the INVENTORS in organizing the venture and the differing features of the given securities comprising the EQUITY POOL. If for example, the shares intended for the University are fully vested at the time of transfer, have meaningful anti-dilution provisions, or other rights that are superior to the shares made available to the INVENTOR, the University may accept less than half of the EQUITY POOL. In those circumstances where the University is not satisfied that the distribution of the EQUITY POOL conforms to these guidelines, the University may require the INVENTORS to waive some or all of their share of NET ROYALTY INCOME.

C.1.3 In some instances, the investor may propose that the INVENTORS' shares be conveyed under a Consulting Agreement. In such cases, the University will have the right to review and approve such Consulting Agreements for the purpose of having them conform to University policies, and the associated license agreement and sponsored research agreement.

C.1.4 Because of the legal restrictions associated with the conveyance of private securities and the liability associated with trusteeship over the INVENTOR'S shares, Equity received by the University shall not be shared with the INVENTORS. As a general rule, the University will require that the INVENTOR'S share of equity be distributed by

the company directly to the INVENTOR(s) at the time of signing the license agreement. To avoid the inherent problems INVENTORS' shares, the University will not accept the shares on behalf of the INVENTORS. The INVENTORS will be responsible for retaining their own business advisors, legal counsel and tax counsel with respect to the securities instruments conveyed to them. INVENTORS assume personal responsibility for all financial, taxation and legal consequences related to the securities instruments they accept from a licensee. In certain circumstances, the Conflicts of Interest Committee will have the right to require that the shares issued to INVENTORS by the licensee be held in a "blind trust" for a defined period of time.

C.1.5 In general, the University will not accept a position on the Board of Directors of the licensee, but may accept and exercise observer rights on such Boards. Exceptions to this require the approval of the Executive Vice President of the University in consultation with the IPA and the General Counsel. As a matter of policy, INVENTORS may not serve on the Board of Directors of the licensee, or in any other fiduciary capacity during the time they receive sponsored research in their University laboratory from the licensee. In general, INVENTORS may accept a seat on scientific advisory boards providing that membership on such a board does not create a fiduciary responsibility to the related licensee and its shareholders.

C.1.6 Any securities received by the University under a license agreement will be held in trust by the Office of the University Treasurer until such time that the University's Investment Advisory Board decides to liquidate such securities under its policies and procedures developed by the Trustee Investment Board for the management of these securities. Distribution of proceeds from the sale of liquid securities shall be distributed within the University according to the provisions of Section 2.3 of the Intellectual Property Policies. Out-of-pocket costs associated with a license agreement involving equity are far higher than a more conventional arrangement. In addition, license agreements with early stage companies sometimes do not reimburse the University's patent related expenses. In those cases where the equity is liquidated prior to commencement of a flow of royalties, out-of-pocket expense will be recovered prior to distribution of proceeds within the University from the sale of stock, dividends or other associated revenue.

C.2 These Rules Governing Equity Transactions in License Agreements are subject to the review and approval of the President of the University. These Rules will be reviewed on a regular basis by the Advisory Board of the Center for Technology Transfer which shall report recommendations for amendments to the President as needed. The University Treasurer shall be the liaison between the Advisory Board and the Trustee Investment Board.

Appendix D. Policies relating to Patents, Copyrights and Software prior to the Effective Date

(from Section II. A. 2. c of the current patent policy)

Royalties or other income received by the University from patent revenues will be distributed as follows:¹

- 1) 50% of the first \$200,000 net patent revenue will be distributed to the inventor(s);
- 2) 25% of the next \$800,000 net patent revenue will be distributed to the inventor(s);
- 3) 15% of the patent revenue of the next \$400,000 will be distributed to the inventor(s);
- 4) 10% of the net patent revenue of all subsequent returns will be distributed to the inventor(s).

The University's share of returns from patents resulting from any invention or discovery from work carried out on University time will be used to support research at the University. Thirty (30%) of such revenues will be placed directly in the Research Foundation to be dealt with by the standard procedures of the Foundation Board. Priority for the remaining (70%) should be given to support research close to the origin of the work which generated the patent.

i) For net patent income less than \$100,000 per year: The 70% may be distributed by the Vice Provost for Research, after consultation with the home department Chairman, in response to research proposals of merit from the inventor(s), from the home department(s) of inventor(s) and from faculty members from the home department and school of the inventor(s), with priorities in that order.

ii) For net patent income in excess of \$100,000 per year: The 70% will be distributed by the Board of the Research Foundation. Priority will be given to research proposals from the inventor(s), from home department(s) of the inventor(s) and from faculty members of the home department and school of the inventor(s) in that order. The Board of the Foundation will,

however, have the responsibility of evaluating the importance and merit of these priority proposals in the context of the broader research needs within the University.

Net patent revenues are defined as revenues from patents retained by the University after payment of expenses associated with the preparation, filing, marketing, exploitation or defense of the patent.

For patents managed by a patent management organization, only the University's share of patent revenues, after payment of significant expenses, will be considered to be net patent revenues.² All patent revenues from patents managed by a patent management organization will be subject to the terms of the agreement between the University and the patent management organization.

Distribution of patent revenues from patents arising from sponsored research will be subject to the terms of the grant or contract, as negotiated between the agency and the University.

¹ This scale applies only to patent revenues accruing on patent filed after April 28, 1980.

² Questions regarding division of the foregoing revenues among inventors where there are patents to multiple inventors, patents to different or overlapping inventors, and multiple patents to a single inventor, and all other questions of interpretation of these guidelines, will be referred to the Vice Provost for Research.

³ If the PMO(s) with which the University deals and the University are not interested in assuming the costs of the patent as outlined above, the inventor may apply individually and at his/her own expense. Under these circumstances the inventor shall grant to the University a royalty-free, irrevocable, non-exclusive license to make or use the invention for its own purposes.