

In March of 2003, the Provost and the Senate Executive Committee jointly established an ad hoc committee to review the University's Patent Policy and to consider possible changes in it. The draft revised policy was completed in the spring of 2004 and reviewed by both the Senate Executive Committee and the Council of Deans, with each suggesting changes that were ultimately accepted by the ad hoc committee, SEC and the Deans. The proposed revised policy was published For Comment in *Almanac* (October 12, 2004). A limited number of comments were received, with several of them ultimately being included in the final draft policy. That policy was adopted by the Trustees at their February 11 meeting and made effective retroactively to January 1, 2005.

Peter Conn, Interim Provost

Charles Mooney, Chair of the Faculty Senate

Patent and Tangible Research Property Policies and Procedures of the University of Pennsylvania

(Note: Words appearing in capital letters are defined in Article 5, unless they are defined in the document itself.)

Article 1. Preamble to the 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 it deems 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.

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 principles governing intellectual property at the University of Pennsylvania, the Trustees hereby decree as follows:

Article 2. Policy and Procedures on Inventions and Patents

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. INVENTORS 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 1, 1993; revised January 1, 2005).

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 or other visitors using research facilities, researchers, adjunct faculty, postdoctoral employees, graduate students, and undergraduate students participating in sponsored research as employees or otherwise, and all salaried employees, shall execute a PARTICIPATION AGREEMENT (Appendix A) as a condition of employment, participation in sponsored research or use of University resources. Notwithstanding the above, an individual acknowledges that he or she is bound by the PATENT POLICY by accepting or continuing University employment or by using University resources or facilities. All students shall be advised of the University's intellectual property policies and procedures through publication and dissemination in the *Penn Book: Resources, Policies and Procedures Handbook*, and elsewhere.

2.1.2 Disclosure and Review. INVENTORS shall file INVENTION DISCLOSURES for all INVENTIONS covered by the PATENT POLICY promptly with the CENTER FOR TECHNOLOGY TRANSFER (CTT) at the University. The CTT shall direct the review and management of the INVENTIONS under procedures and practices instituted and monitored by the EXECUTIVE COMMITTEE. The CTT will undertake the review of the disclosure within 30 business days after the submission is completed. Upon the request of the INTELLECTUAL PROPERTY ADMINISTRATOR (IPA), an INVENTOR shall assign in writing to "The Trustees of the University of Pennsylvania" all right, title and interest in and to any INVENTION.

2.1.3 Inventions Outside the Policy. If an INVENTOR believes that a given INVENTION was made outside the scope of the PATENT POLICY, he or she shall provide the IPA with a written statement of the circumstances leading to the making of the INVENTION. If, after reviewing the facts, the IPA determines that the INVENTION falls outside the scope of the PATENT POLICY, the IPA shall confirm in writing within 30 days that the University has no right, title and interest to the INVENTION. If the facts are equivocal, or if the IPA believes that such INVENTION falls under the PATENT POLICY, the matter of ownership will be referred by the IPA or the INVENTOR to the APPEALS BOARD for a decision. The APPEALS BOARD shall make a recommendation to the President concerning ownership.

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 graduate 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 INVENTIONS arising from a dissertation submitted as a part of the requirements for a degree shall be subject to the PATENT POLICY. In such instances, graduate students will make ASSIGNMENT to the University and will share in the distribution of royalties.

2.1.5 Return of Inventions.

2.1.5.1 Inventions Made without Outside Sponsorship. If an 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 EXECUTIVE COMMITTEE, return all right, title and interest to the INVENTION, patent application or issued patent to the INVENTORS.

2.1.5.2 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 waives ownership rights, if any, the IPA may, in consultation with the EXECUTIVE COMMITTEE return all right, title and interest to the INVENTION, patent application or issued patent to the INVENTORS, 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 in-

terest, 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).

2.2.1.1 INVENTORS or other University faculty or employees involved in the licensing of an INVENTION to a prospective licensee shall disclose any fiduciary or financial interest in or contractual relationship with the prospective licensee to their Deans and Chairs, or their relevant administrative supervisor, in accordance with the applicable University policy on conflicts of interest. In addition, INVENTORS or other University faculty or employees involved in the licensing of an INVENTION to a prospective licensee shall disclose any fiduciary or financial interest in that prospective licensee to the IPA, who shall refer consideration of the matter to the EXECUTIVE COMMITTEE.

2.2.1.2 The University will notify INVENTORS of prospective licensees in an early stage of the negotiation process. If the INVENTORS object to the prospective licensee, they may appeal within 30 days to the APPEALS BOARD. The APPEALS BOARD will render a decision within 30 days. The final decision on how to proceed with the license rests with the President of the University.

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 Net Royalty Income, the Equity Pool and Net Equity Income from Licensed Inventions.

2.3.1 Distribution of Net Royalty Income. NET ROYALTY INCOME shall be distributed as follows:

PERCENT OF NET ROYALTY INCOME	
INVENTORS PERSONAL SHARE (See 2.3.4)	30%
INVENTORS RESEARCH ACTIVITY SHARE (See 2.3.5)	12.5%
DEPARTMENTS OF INVENTORS SHARE (See 2.3.6):	12.5%
SCHOOLS OF INVENTORS SHARE (See 2.3.7):	15.0%
UNIVERSITY RESEARCH SHARE (See 2.3.8):	30%
TOTAL DISTRIBUTION OF NET ROYALTY INCOME:	100.0%

2.3.1.1 Non-cash component of license. All tangible, non-cash considerations (except equity) in licenses will be approved by the LEAD INVENTOR(S) and distributed by CTT on a case by case basis in consultation with the LEAD INVENTOR(S).

2.3.2 Distribution of the EQUITY POOL. Under license agreements for which the University has negotiated an EQUITY POOL, the INVENTORS shall receive 30% of the EQUITY POOL, unless one or more INVENTOR receives EQUITY from the licensee outside of the EQUITY POOL. An INVENTOR who receives EQUITY from the licensee outside of the EQUITY POOL shall not receive EQUITY from the EQUITY POOL except with approval of the University. The IPA shall make a recommendation in this regard to the Vice Provost for Strategic Initiatives, who shall make a determination in consultation with the relevant Deans. Furthermore, if one or more INVENTOR receives EQUITY outside of the EQUITY POOL, the portion of the EQUITY POOL to be received by the other INVENTORS shall be reduced in proportion to the contribu-

tion to the licensed INVENTIONS, as determined by the CTT, made by the INVENTORS who receive EQUITY outside of the EQUITY POOL. (Rules governing licensing transactions for EQUITY are discussed in Appendix B).

2.3.2.1 INVENTORS receiving EQUITY from the EQUITY POOL or outside the EQUITY POOL may also receive INVENTORS PERSONAL SHARE of NET ROYALTY INCOME under Section 2.3.1. An exception to this may arise in certain circumstances, such as when INVENTORS receive founders stock, stock for consulting services or other consideration from the licensee. In such cases, the University may determine that such INVENTORS shall not receive some or any of the INVENTORS PERSONAL SHARE of NET ROYALTY INCOME. The IPA shall make a recommendation in this regard to the Vice Provost for Strategic Initiatives, who shall make a determination in consultation with the relevant Deans.

2.3.3 Distribution of Net Equity Income. After distribution of the INVENTORS PERSONAL SHARE (30%), NET EQUITY INCOME shall be distributed as follows:

PERCENT OF NET EQUITY INCOME

INVENTORS RESEARCH ACTIVITY SHARE (See 2.3.5):	17.85%
DEPARTMENTS OF INVENTORS SHARE: (See 2.3.6):	17.85%
SCHOOLS OF INVENTORS SHARE (See 2.3.7):	21.43%
UNIVERSITY RESEARCH SHARE (See 2.3.8):	42.87%
TOTAL DISTRIBUTION OF NET EQUITY INCOME:	100.0%

2.3.4 Rules Governing the Inventors Personal Share. The INVENTORS PERSONAL SHARE of NET ROYALTY INCOME under Section 2.3.1 shall be distributed among all INVENTORS (if more than one), as the INVENTORS unanimously designate in writing to the IPA. If the INVENTORS fail to make such unanimous written designation before the license agreement is executed, the INVENTORS PERSONAL SHARE of NET ROYALTY INCOME shall be distributed among all INVENTORS as the CTT, in its sole discretion, shall designate. The INVENTORS share of the EQUITY POOL under Section 2.3.2 shall be distributed among all INVENTORS entitled to share in the EQUITY POOL (if more than one), as such INVENTORS unanimously designate in writing to the IPA. If the INVENTORS entitled to share in the EQUITY POOL fail to make such unanimous written designation before the license agreement is executed, the INVENTORS share of the EQUITY POOL shall be distributed among INVENTORS entitled to share in the EQUITY POOL as the CTT, in its sole discretion, shall designate.

2.3.4.1 If an INVENTOR ceases employment at the University, his or her designated portion of the INVENTORS PERSONAL SHARE of NET ROYALTY INCOME under Section 2.3.1 and of the INVENTORS share of the EQUITY POOL under Section 2.3.2 shall remain payable to such INVENTOR.

2.3.5 Rules Governing the Inventors Research Activity Share. The INVENTORS RESEARCH ACTIVITY SHARE, when the INVENTORS are faculty, shall be used only for research purposes through a budget approved by the Dean(s) of the relevant School(s).

2.3.5.1 The INVENTORS RESEARCH ACTIVITY SHARE shall be divided equally among the INVENTORS (if more than one) unless the INVENTORS unanimously request in writing, and the Vice Provost for Strategic Initiatives approves, some other distribution.

2.3.5.2 If a sole INVENTOR leaves the University, the INVENTORS RESEARCH ACTIVITY SHARE shall be distributed to the INVENTOR'S School at the University to support research in the School at the University. If there is more than one INVENTOR, and one of those INVENTORS leaves the University, that share shall be distributed evenly to support the research activity of the INVENTORS who remain. If no INVENTORS remain at the University, the INVENTORS RESEARCH ACTIVITY SHARE will be distributed to the INVENTORS School(s) to support research in the School(s).

2.3.5.3 When INVENTORS are students, graduate students or postdoctoral employees, their corresponding INVENTORS RESEARCH

ACTIVITY SHARE shall be distributed to the laboratory to which they are assigned. If such INVENTORS do not have a primary laboratory affiliation, their corresponding INVENTORS RESEARCH ACTIVITY SHARE shall be distributed to their Department. Income so distributed shall be used to further the education and research activity of the INVENTOR while at the University and/or for other research purposes through a budget approved by the Dean(s) of the relevant School(s).

2.3.6 Rules Governing the Departments of Inventors Share. The DEPARTMENTS OF INVENTORS SHARE shall be used only for research purposes through a budget approved by the Dean(s) of the relevant School(s).

2.3.6.1 If an INVENTION is made by INVENTORS within a Division, Research Center, or Institute, the Department(s) of the INVENTORS may make an equitable distribution of income to that Division, Research Center, or Institute from the DEPARTMENTS OF INVENTORS SHARE.

2.3.6.2 If an INVENTION is made by INVENTORS from different Departments, the DEPARTMENTS OF INVENTORS SHARE shall be divided among the Departments in proportion to the number of faculty INVENTORS from each Department. A Department shall retain its portion of the DEPARTMENTS OF INVENTORS SHARE if an INVENTOR from that Department leaves the Department or the University.

2.3.7 Rules Governing the Schools of Inventors Share. The SCHOOLS OF INVENTORS SHARE 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 SCHOOLS OF INVENTORS SHARE may be distributed to Department(s) of the INVENTORS or used to support the research activity of the INVENTORS.

2.3.7.1 If an INVENTION is made by INVENTORS from different Schools, the SCHOOLS OF INVENTORS SHARE shall be divided among the Schools in proportion to the number of faculty INVENTORS from each School. A School will retain its portion of SCHOOLS OF INVENTORS SHARE if an INVENTOR from that School leaves the School or the University.

2.3.8 Rules Governing the University Research Share. The UNIVERSITY RESEARCH SHARE shall be used for the general support of research at the University as determined by the Provost. The Provost will release periodic reports describing the use of these funds.

2.3.9 Invention Revenue Distribution for Non-Academic Inventors. When an INVENTOR is other than a faculty member, employee of an academic laboratory, student or postdoctoral employee, the distribution of NET ROYALTY INCOME or NET EQUITY INCOME other than the INVENTORS PERSONAL SHARE shall be determined by the President on a case-by-case basis with a recommendation from the IPA together with the Executive Vice President, the Chief Executive Officer of the Medical Center (where applicable), relevant Deans, and/or other involved administrative heads.

2.4 Implementation of Procedures for Distribution of Net Royalty Income and Net Equity Income.

2.4.1 Inventions Disclosed and Licensed After the Effective Date. Distribution of income from all INVENTIONS disclosed and licensed on or after the EFFECTIVE DATE shall be governed by the procedures in Section 2.3.

2.4.2 Inventions Disclosed Before the Effective Date, but Licensed After the Effective Date. Distribution of income from all INVENTIONS disclosed before the EFFECTIVE DATE, but not yet subject to a license agreement as of the EFFECTIVE DATE, shall be governed by the procedures in Section 2.3.

2.4.3 Inventions Disclosed and Licensed Before the Effective Date. All revenue distributions during and after the fiscal year that the revised policy becomes effective, including revenue distributions for an INVENTION whose disclosure or licensing was completed prior to the EFFECTIVE DATE of the revised policy, will be made according to the revised policy, and shall thus be governed by the procedures in Section 2.3.

2.5 Administration of Royalty Distribution and Reporting. Royalty distributions, with a report accounting for costs charged against the roy-

alties, shall be made to each royalty recipient within 45 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 Use of Outside Facilities. Faculty members, employees or students who use research facilities at another institution or a corporation shall contact the IPA for assistance in evaluating the policies of the host institution or corporation as appropriate. Graduate students who are conducting research in commercial research facilities should obtain a written assurance of their right to publish the results of their research. Faculty members, employees or students who engage in outside employment or consulting agreements are referred to Article 3.

Article 3. Policy and Procedures Relating to Consulting and Outside Activities

3.1 Consulting Policy. As stated in the University policy entitled “Conflict of Interest Policy for Faculty Members” (Section II.E.10 of the *Handbook for Faculty and Academic Administrators*), the University recognizes the value to the institution and to its faculty of permitting the faculty to engage in extramural consulting activities. These activities offer the potential of strengthening the competence and expertise of the faculty as scholars, as well as the potential of developing the intellectual property owned by the University. In all circumstances where consulting activities may result in the creation of an INVENTION, the following procedures and principles apply:

3.1.1 To ensure that the consulting activities are consistent with faculty members’ professional obligations to the University, responsibilities with respect to the avoidance of conflicts of interest, and to their commitments for teaching and research, faculty members should comply with the provisions of Section II.E.10 of the *Handbook* which include both the prospective disclosure of the potential consulting activities to their Department Chairs and School Deans, as well as written reports on such activities as set forth in the *Handbook*, or other related procedures established by their School or Department.

3.1.2 In any case where the faculty member, Department Chair, or Dean believes that there is a potential conflict of interest or conflict of commitment, the matter shall be referred to the University Conflict of Interest Standing Committee. The Committee shall review the matter and make recommendations to the Provost, or his/her designee, who has the authority to approve, modify, or disapprove any consulting arrangement that raises a potential conflict. In determining whether review by the Conflict of Interest Standing Committee is appropriate, the faculty member, Department Chair, or Dean may consult with the General Counsel.

3.1.3 In all consulting relationships, faculty members have the duty to protect any intellectual property owned by the University and the ability of the University to fulfill its obligations to government funding agencies and commercial and non-commercial sponsors of research.

3.2 Consulting Agreements. Except to the extent set forth in Section 3.4 below, faculty members contemplating entering into a consulting agreement shall ensure that his/her obligations under the PATENT POLICY are not compromised and the University’s rights are protected. Specifically, faculty members have the responsibility to ensure that the following terms are not part of any consulting agreement: (1) confidentiality provisions that prevent the individual from publishing research or from reporting results of University research to research sponsors; (2) confidentiality provisions that prevent the individual from providing TANGIBLE RESEARCH PROPERTY or other deliverables to a University research sponsor or other entity as required by federal law, federal regulation, or by sponsor agreement; (3) intellectual property provisions that preclude the consultant from assigning any inventions that arise out of the consulting relationship to the University; and (4) any provisions that are designed to circumvent University policies and procedures for the disclosure, review and approval of sponsored research projects or other University policies concerning intellectual property. Moreover, in the context of academic research, it may be difficult to avoid commingling of research activity or re-

sources with services provided under the consulting agreement. It is the obligation of the faculty member in negotiating the consulting agreement to ensure that any consulting relationship entered into protects against any such commingling of research or resources.

3.2.1 Faculty members may seek the assistance of the IPA in determining whether a proposed agreement conforms to these guidelines. Such assistance should not be construed to be advice or counsel as to the faculty member’s personal interests in the consulting agreement.

3.3 Consulting Activity with a Company Providing Sponsored Research. In addition to the procedures set forth above, if a faculty member contemplates a consulting relationship with a company that sponsors research for that individual at the University, the proposed consulting agreement shall be disclosed to the IPA, along with an explanation of the nature and scope of the individual’s anticipated activities. The IPA shall refer the matter to the University Conflict of Interest Standing Committee, with copies of all applicable documentation to relevant Deans, Department Chairs and the General Counsel for review. The Committee shall make recommendations to the Provost, or his/her designee, who shall have the authority to approve, modify or disapprove any such proposed agreements.

3.4 Exception to the General Consulting Policy. Notwithstanding the policies articulated in Section 2.0 above, and in the general consulting policy set forth above, the University recognizes that faculty members may seek to undertake consulting engagements, at the direction of a firm or entity other than the University, that may require that any resulting INVENTIONS be assigned to the sponsor of the engagement. While not providing the University with ownership of the INVENTION, these consulting engagements may nevertheless provide significant benefits to faculty members and to the University. For this reason, it is the policy of the University to permit these consulting engagements, without claiming any ownership interest in the INVENTION, under the follow conditions.

3.4.1 Conditions for Consulting Engagements. In order for faculty members to fall within this exception to the consulting policy: (1) The engagement must be consistent with the policy on “Conflict of Interest Policy for Faculty Members” (*Handbook for Faculty and Academic Administrators*, II.E.10); (2) no undergraduate or graduate students may be involved in the engagement; (3) the faculty member must be compensated in cash rather than EQUITY and the faculty member may not have a SIGNIFICANT EQUITY INTEREST in the sponsoring entity or an affiliate of that entity; (4) performance of the engagement may not involve the SUBSTANTIAL USE OF UNIVERSITY RESOURCES or facilities; and (5) the terms of the engagement must not conflict with any existing commitments under sponsored research or otherwise for ownership of resulting inventions.

3.4.2 Procedures for Disclosing Consulting Engagements. To qualify for treatment under this provision, the proposed agreement must be disclosed to the Department Chair and the Dean at a reasonable time prior to the commencement of the engagement and the engagement must be reported to the Department Chair and the Dean, in writing, on an annual basis. If the Dean determines, after consultation with the Department Chair and the IPA that criteria set forth in Section 3.4.1 have been met, the Dean may approve the engagement. If not, the Dean should so notify the faculty member who may then appeal the decision to the Provost. The Dean should notify the faculty member of his or her decision promptly, and if possible, within 30 days of receipt of the disclosure.

3.4.3 Procedures for Waiver of Conditions. Should a faculty member seek to undertake a consulting engagement that is neither within the general consulting policy, nor satisfies the criteria of Section 3.4.1, the faculty member may request a waiver from the Dean to permit the faculty member to enter into the consulting arrangement. After consulting with the General Counsel, the Provost or his/her designee and the IPA, the Dean may grant the waiver. If the Dean determines that, under the facts and circumstances of the particular case, the waiver would undermine the principles underlying the PATENT POLICY, violate any legal or regulatory requirement, present an unmanageable conflict of interest or otherwise violate University policy, the Dean should deny the waiver and notify the faculty member. The decision should be made and communicated to the

faculty member as promptly as possible, generally within 15 days of receipt of the waiver request. Should the waiver be denied, the faculty member may appeal the decision to the Provost.

3.4.4 Liability when Consulting. Faculty members entering into consulting engagements should understand that they are undertaking personal responsibilities and may be assuming certain personal risks of liability. For that reason, all faculty members may wish to seek personal legal counsel, at their own expense, for the purpose of reviewing proposed consulting agreements so as to protect their personal interests. To the extent, however, that faculty members are availing themselves of this exception to the PATENT POLICY, they are doing so entirely at their own risk and are not, in any way, protected by the University. For this reason, faculty members are well advised to seek personal legal advice before entering into such a consulting relationship.

3.5 Application of the Consulting Policy and Procedures to Administrators and Staff. The University recognizes the value to the institution and of permitting administrators and staff, as well as faculty, to engage in extramural consulting activities, under certain circumstances. Except as specifically set forth below, the above policy applies to administrators and staff who seek to enter into consulting engagements.

3.5.1 Staff and administrators who contemplate entering into consulting engagements are subject to the "Guidelines for Extramural Activities, Associations, and Interest for Staff" (*Human Resources Policy Manual*, Policy No. 006, effective 2/1/1990) and should follow the procedures for disclosure and clearance of potential conflict of interest issues set forth in those guidelines.

3.5.2 Section 3.4 does not apply to administrators or staff.

Article 4. Policy and Procedures Relating to Tangible Research Property

4.0 Policy Statement on Tangible Research Property. TANGIBLE RESEARCH PROPERTY made by INVESTIGATORS in the course of employment at the University, or work directly related to professional or employment responsibilities, 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 INVESTIGATORS with TANGIBLE RESEARCH PROPERTY may meet their obligations to the research community shall be developed and promulgated by the President.

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

4.1.1 Methods of Transfer. TANGIBLE RESEARCH PROPERTY may be made available to others in any of three ways:

4.1.1.1 An INVESTIGATOR may provide TANGIBLE RESEARCH PROPERTY directly from his or her laboratory upon written request from another researcher for non-commercial research and/or educational purposes only. Such transfer must be made by written agreement in a form approved by the Office of the General Counsel and the CTT.

4.1.1.2 INVESTIGATORS may deposit 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. Such transfer must be made by written agreement in a form approved by the Office of the General Counsel and the CTT.

4.1.1.3 INVESTIGATORS may, through the CTT, license or otherwise transfer the TANGIBLE RESEARCH PROPERTY to a commercial or non-commercial entity.

4.1.2 Revenues from Transfer of Tangible Research Property. Unless prohibited by federal regulations, or the terms of a grant or award under which TANGIBLE RESEARCH PROPERTY is developed, net revenues from transfer of TANGIBLE RESEARCH PROPERTY shall be distributed as NET ROYALTY INCOME in accordance with the provisions of Section 2.3, except for the first \$100,000 which will be used to support the research activities of the INVESTIGATORS who made such TANGIBLE RESEARCH PROPERTY. To the extent revenues from licenses or transfers of TANGIBLE RESEARCH PROPERTY carried out through the CTT are not distributed as NET ROYALTY INCOME, the CTT may recover its LICENSING COSTS and other expenses and may apply an administrative charge, not to exceed 20% of such revenues, provided the INVESTIGATOR is informed and agrees in advance to such charge. License and other revenues derived from TANGIBLE RESEARCH PROPERTY may be considered program income under federal regulations or grant terms. INVESTIGATORS shall report such revenues to the Office of Research Services for a determination whether such revenues must be reported to the funding agency.

4.1.3 Confidentiality of Donors and Subjects. 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.

Article 5. Definitions

5.0 Defined terms in this Section 5.0 apply to the PATENT POLICY and the Procedures. Defined terms used in the PATENT POLICY (underlined below) may be modified only by the Trustees of the University of Pennsylvania.

5.0.1 APPEALS BOARD appointed and chaired by the Provost or his/her designee and comprised of four administrators; two term faculty appointed by the Faculty Senate; two ad hoc faculty selected for expertise by the Dean(s) of the relevant School(s) or the Chair(s) of the relevant Departments(s); (non-voting) counsel; and staffed by the Office of the Vice Provost for Strategic Initiatives, resolves disputes between an INVENTOR and the management of the Office of Strategic Initiatives.

5.0.2 ASSIGNMENT means the execution of a written agreement by an INVENTOR assigning all of the INVENTOR'S right, title and interest in and to an INVENTION or TANGIBLE RESEARCH PROPERTY. INVENTIONS are assignable as of the time they are conceived or reduced to practice.

5.0.3 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.

5.0.4 EFFECTIVE DATE means *November 1, 2004*.

5.0.5 EQUITY means shares of stock or securities, including but not limited to stock options, warrants or any other rights to purchase stock or securities.

5.0.6 EQUITY POOL means the total allotment of EQUITY negotiated by the University as consideration for a license of the University's interests in an INVENTION or TANGIBLE RESEARCH PROPERTY.

5.0.7 EXECUTIVE COMMITTEE appointed by the Provost in consultation with the Vice Provost for Strategic Initiatives and chaired by the Vice Provost for Strategic Initiatives is comprised of the Managing Director of the Center for Technology Transfer, ex officio; the Vice Provost for Research; the Dean of the School of Medicine or his/her designee; one faculty from each of the School of Arts and Sciences and the School of Engineering and Applied Science; one at-large faculty; and non-voting counsel. The Executive Committee's charge is to provide oversight and steering of the technology transfer process. Together with the Vice Provost for Strategic Initiatives, the Executive Committee will assist the Pro-

vost in setting the operating budget for CTT.

5.0.8 INTELLECTUAL PROPERTY ADMINISTRATOR (IPA) means the managing director of the CTT.

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

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

5.0.11 INVENTORS means University faculty, emeritus faculty, visiting faculty, adjunct faculty, postdoctoral employees, or other employees, or students, or others who individually or jointly make an INVENTION subject to the PATENT POLICY and who meet the criteria for inventorship under United States patent laws and regulations.

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

5.0.13 LICENSING COSTS means all historic and on-going patent and legal costs related to the patents, patent applications or other technologies licensed, including copyright or trademark protection; licensing and other internal or out-of-pocket transactional costs; finder's fees or commissions; shares of stock or moneys paid or due under an agreement with patent management organizations; moneys due under agreements with other entities that jointly own licensed technologies; litigation or dispute resolution costs; and moneys paid or due third parties as a result of settlement of or judgment in a dispute, and other costs, including but not limited to costs related to the licensing of the technologies, applicable taxes, or other expenses.

5.0.14 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.

5.0.15 NET EQUITY INCOME means the proceeds realized by the University from dividends or the sale of EQUITY received by the University in a license agreement, net of LICENSING COSTS.

5.0.16 NET ROYALTY INCOME means the revenues received from license agreements as payment for license fees, license maintenance fees, minimum royalties, sublicense fees, royalties on sales of products, settlements of lawsuits, and the like, net of LICENSING COSTS. Payments made by a licensee under a sponsored research agreement are specifically excluded as revenues for the purpose of determining NET ROYALTY INCOME.

5.0.17 PARTICIPATION AGREEMENT means a written agreement in the form of Appendix A to the PATENT POLICY, setting out rights and responsibilities of University faculty, emeritus faculty, visiting faculty, adjunct faculty, postdoctoral employees and/or other salaried employees,

students, and others under the University's policies and procedures.

5.0.18 SIGNIFICANT EQUITY INTEREST means any ownership interest, stock options, or other financial interest that when aggregated for the individual and the individual's spouse and dependent children exceeds \$25,000 in value as determined through reference to public prices or other reasonable measures of fair market value and does not represent more than five percent (5%) ownership interest in any single entity.

5.0.19 SUBSTANTIAL USE OF UNIVERSITY RESOURCES means the use of University funds, facilities, equipment, or other resources significantly in excess of the norm for educational and research purposes in the Department or School in which the faculty member(s) holds his or her (their) primary appointment(s) or in which a staff member or student is enrolled or employed. Academic year salary, office, usual library resources, usual secretarial and administrative staff resources or usual computer equipment, among other things, are not regarded as constituting "substantial use of University resources." Any question about what constitutes substantial resources should be referred to the Vice Provost for Research.

5.0.20 TANGIBLE RESEARCH PROPERTY means unique research products such as biological materials or chemical moieties, whether or not patentable. 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.

5.1 Review of Policies and Procedures. The EXECUTIVE COMMITTEE together with the Vice Provost for Strategic Initiatives shall review these Patent and Tangible Research Policies and 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 EXECUTIVE COMMITTEE shall make recommendations for amendments or other changes to the Provost and the Faculty Senate, who shall confer with the President.

5.2 Disputes Under Policies and Procedures. Disputes arising from the interpretation or administration of these Patent and Tangible Research Policies and Procedures may be referred by any interested party to the IPA who will promptly notify the Chair of the APPEALS BOARD. The APPEALS 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.

Appendix A. Participation Agreement

Effective July 1, 1993, the Trustees of the University of Pennsylvania reaffirmed the University's Patent Policy and approved a new Policy on Tangible Research Property and, effective July 1, 1993, the President approved new procedures for administering the Patent and Tangible Research Property Policies (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.

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, or 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 as well as by the terms of any revisions or amendments adopted by the President and/or the Trustees of the University of Pennsylvania. 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 my 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 SUBSTANTIAL USE OF 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, whether or not patentable, 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 substantial use of 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 research sponsors, the University seeks to retain copyrights for its faculty.

6. I will cooperate fully with the University 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 and equity in the Policies and Procedures as stated therein, and as amended from time to time.

8. I am under no obligation to any person, organization or corporation with respect to any INVENTION(S), TANGIBLE RESEARCH PROPERTY or copyrightable materials which are, 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, TANGIBLE RESEARCH PROPERTY, 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. Rules Governing Equity Transactions

B.1 Conflicts of Interest in License Agreements Involving Equity.

License agreements involving EQUITY must be structured to protect the University from liability and to avoid conflicts of interest. The IPA shall inform the Vice Provost for Strategic Initiatives, and the relevant Deans and Chairpersons, the General Counsel, the Office of Research Services and the involved INVENTOR(S) in writing of the proposed terms of the agreement and of any potential conflicts of interest. The INVENTOR(S) shall disclose to the IPA any existing or proposed consulting agreement between the INVENTOR(S) and the prospective licensee or any other consulting agreements with other entities that have potential for conflicts of interest. The University and the relevant Deans may impose limitations on the proposed license agreement, associated sponsored research agreement, consulting agreement between the INVENTOR and the licensee, or other agreements. In addition, the University, Deans or Chairpersons may create an oversight mechanism for the relevant INVENTORS.

B.1.1 Board Participation and Fiduciary Roles. 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 policy 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 their University research is sponsored by 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 licensee and its shareholders.

B.1.2 Minority Ownership. The INVENTORS (and members of their families) together may not be majority shareholders of the venture at the time that the license agreement is negotiated and thereafter.

B.1.3 Licensee Representation. In license negotiations with the University, the prospective licensee must be represented by a party other than an INVENTOR or a member of the INVENTOR'S family.

B.2 Licenses in Consideration of Equity. The principal purpose of licensing by 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 in consideration of EQUITY, the IPA may negotiate such a license on behalf of the University, following consultation with the Vice Provost for Strategic Initiatives, the relevant Deans and Chairs, the Treasurer and the University Conflict of Interest Standing Committee. The IPA should be satisfied that the licensee can demonstrate management and technical capability, and that it has the financial resources necessary to meet its developmental objectives and its obligations to the University. The IPA may accept EQUITY in the licensee for the University in lieu of license or other fees,

provided that the EQUITY represents a fair valuation for the technology. The IPA shall include in each license measures of performance that must be met in order to maintain the license granted by the University.

B.3 Disclosure of Equity. The University will require the prospective licensee to disclose all EQUITY offered to the University (and other institutions or individuals which may co-own an INVENTION with the University) in consideration for the license agreement. In addition, the prospective licensee will be required to disclose in writing to the IPA and the Treasurer the specific terms and conditions associated with such EQUITY, and the anticipated capital structure of the venture. Furthermore, the prospective licensee and the INVENTORS must disclose to the IPA and the Treasurer in writing the EQUITY to be issued to INVENTORS for their role as founders, consultants, or otherwise.

B.4 Direct Personal Ownership of Equity. The University generally requires that the EQUITY provided to INVENTORS from the EQUITY POOL must be issued directly to the INVENTORS at the time the EQUITY is issued. The INVENTORS will be responsible for retaining their own business advisors, legal counsel and tax counsel. INVENTORS are responsible for all financial, tax and legal consequences related to the EQUITY they receive. The University Conflict of Interest Standing Committee reserves the right to require that any EQUITY issued to INVENTORS by the licensee be held in a "blind trust" for a defined period of time. An INVENTOR who receives EQUITY from the EQUITY POOL or from the licensee outside of the EQUITY POOL will not be entitled to any share of the University's NET EQUITY INCOME. Under rare circumstances, the University may agree to accept all shares of the EQUITY POOL including INVENTORS shares, providing that all INVENTORS and other institutions release the University in writing from any liability associated with the management and ownership of the shares. In such cases, the Investment Board of the University will control the stock. Any income received by the University from shares held on behalf of INVENTORS will be distributed among INVENTORS in accordance with Section 2.3.4 of the Patent and Tangible Research Policies and Procedures.

B.5 Modifications of Rules. These Rules Governing Equity Transactions and Equity Distributions in License Agreements are subject to the review and approval of the President. These Rules will be reviewed on a regular basis by the EXECUTIVE COMMITTEE, which shall report recommendations for amendments to the President as needed. Changes may be made by the President without prior notice.

B.6 Management of Equity. Any EQUITY received by the University under a license agreement will be held by the Office of the Treasurer until such time that the University's Investment Board decides to liquidate such EQUITY.