

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5034969

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
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RECEIVING PARTY DATA	
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PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13638923
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DATE SIGNED:	07/03/2018
Total Attachments: 10	
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Edward D. Miller, M.D.
 The Frances Watt Baker, M.D. and
 Lenox D. Baker, Jr., M.D.
 Dean of the Medical Faculty
 CEO, Johns Hopkins Medicine

JOHNS HOPKINS
 M E D I C I N E

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June 30, 2008

DR. ANDRES HURTADO
 Department of Neurology

DEAR DR. HURTADO

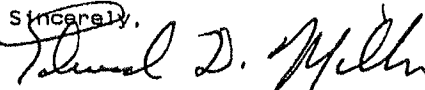
By authority of the President and upon the nomination of the Advisory Board of the Medical Faculty, it is my pleasure to appoint you to the faculty of the Johns Hopkins University as:

Instructor in Neurology
 Full Time

The term of the appointment is from: July 1, 2008 to June 30, 2009

The terms of the offered appointment require your adherence to all University policies pertaining to full time faculty. Your attention is particularly directed to the enclosed **Faculty Policies** publication. The policy on conflict of commitment points out your obligation to assign first priority to the needs of the Johns Hopkins University. Also enclosed is a statement explaining the importance of our policies concerning scientific integrity and the ethical conduct of research and a copy of the **2005 Policies and Guidelines Governing Appointments, Promotions, and Professional Activities of the Full-Time Faculty**. This appointment, like all employment at the Johns Hopkins University, is contingent on your demonstrating authorization to be employed in the United States.

Since this letter constitutes a contract between you and the School of Medicine, a signed copy of this letter must be on file in the Office of the Dean. Please notify me of your acceptance within thirty days of receipt of this letter by returning a signed copy of this letter to the Office of the Registrar, 733 N. Broadway, 147 Broadway Research Building, Baltimore, MD 21205.

Sincerely,

 Edward D. Miller, M.D.
 Dean of the Medical Faculty
 CEO, Johns Hopkins Medicine

By signing below, I accept this appointment; I further acknowledge that I have read and agree to abide by all University and School of Medicine policies, including those found at <http://www.hopkinsmedicine.org/Research/policies/index.html> as they pertain to my appointment. I certify that I have disclosed on eOPC my outside interests and activities (e.g., consultant, board of director member, stock holder, inventor etc.) as required under the conflict of interest and commitment policies.

NOTE: If you need to update your disclosures prior to signing this letter, you may do so via the School of Medicine's on-line disclosure system (eOPC) located at: <https://e-opc.jhmi.edu>

I agree that I will comply with the policy regarding Speakers' Bureaus approved by the Advisory Board of the Medical Faculty on June 25, 2008, copy enclosed.


 Signature

7/30/08
 Date

**THE JOHNS HOPKINS UNIVERSITY
INTELLECTUAL PROPERTY POLICY**

April 2, 2001

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The Johns Hopkins University strives to support its faculty and employees in securing commercial development of intellectual and other property resulting from their research so that the benefits of that research may reach society at the earliest opportunity. This is consistent with the University's mission of developing new knowledge and facilitating the practical application of such knowledge to the benefit of the public. The University has developed policies and guidelines that provide incentives for its researchers while protecting the integrity of research emanating from this institution. Moreover, the University provides an array of administrative services to its Inventors to assist them in protecting rights to University Intellectual Property and fostering commercial development.

This document describes University policy relevant to Intellectual Property and lists the available University-wide resources. The policy shall be interpreted in a manner consistent with applicable federal and state statutes and implementing regulations. It shall apply to all students receiving remuneration for services, faculty, and staff of the University (with the exception of those covered under the Invention Policy of The Johns Hopkins University Applied Physics Laboratory). Faculty, staff and students shall be referred to as "faculty" throughout the

remainder of this document. (For further definitions of terms, refer to Appendix II, Glossary.)

This revised Intellectual Property Policy supersedes that which was adopted by the Board of Trustees on October 27, 1992. It is effective on the date of its approval by the Board of Trustees. It shall apply to all new Inventions disclosed to the University after the effective date, as well as to those Inventions licensed after the policy's effective date regardless of date of disclosure. Inventions covered by the terms of a previous assignment remain subject to the policy under which they were negotiated. Inventors may elect in writing to receive royalties for those Inventions disclosed but not licensed prior to the date of Board approval as allowed under the previous University Invention Policy, provided that such election was received by the appropriate Divisional office by the close of business on April 2, 2001. An Inventor choosing royalty distribution under the former policy shall be governed by all other provisions of the new policy, including the opportunity to benefit from ownership of equity. For any Invention licensed after the effective date of this policy, regardless of choice of option, University costs for patent prosecution, licensing, and license maintenance shall be reimbursed from Gross Revenues. University costs for patent infringement actions shall be reimbursed from Gross Revenues in a manner and amount to be determined by consultation between the Division Dean and the President.

### **I. Intellectual Property: Definition**

For purposes of this policy, Intellectual Property is defined as any new and useful process, machine, composition of matter, life form, article of manufacture, software, copyrighted work (see IV, E), or tangible property. It includes such things as new or improved devices, circuits, chemical compounds, drugs, genetically engineered biological organisms, data sets, software, musical processes, or unique and innovative uses of existing Inventions. Intellectual Property may or may not be patentable or copyrightable. It is created when something new and useful has been conceived or developed, or when unusual, unexpected, or non-obvious results, obtained with an existing Invention, can be practiced for some useful purpose. Intellectual Property can be created by one or more individuals each of whom, to be an Inventor, must have conceived of an essential element or have contributed substantially to its conceptual development.

### **II. University Responsibilities**

The University acknowledges the importance of transferring its Intellectual Property in an appropriate and cost-effective manner. To that end, the UniverSity shall establish efficient mechanisms for technology transfer, so as to maximize the value of the technology to the faculty and the University.

#### **A. The University Administration shall:**

1. Provide oversight of Intellectual Property management and technology transfer to ensure adherence to University policies;
2. Assist the Divisions in establishing and maintaining effective technology transfer mechanisms and Divisional policies and procedures consistent with University policies;
3. Provide legal services and cooperate with the Divisions in promoting and licensing Intellectual Property; and
4. Take appropriate actions to protect the University's Intellectual Property.

#### **B. Divisional Administrations shall:**

1. Promote technology transfer in a manner consistent with the Division's objectives and academic environment;
2. Establish policies and procedures for technology transfer and the avoidance of conflicts of interests, consistent with University policies; and
3. Review and approve all agreements that convey or affect the University's rights to Intellectual Property originating in that Division.

### **III. Faculty Responsibilities**

Faculty members who create Intellectual Property shall:

- A. Disclose to appropriate University or Division officials the creation of Intellectual Property;
- B. Conduct technology transfer activities in a manner consistent with University and Divisional policies and procedures, including those governing conflicts of commitment and conflicts of interest; and
- C. Cooperate with the University in defending and prosecuting patents and in legal actions taken in response to infringement.

### **IV. Ownership of Intellectual Property**

- A. In general, the University has the right to obtain title to Intellectual Property developed as a result of support either directly from or channeled through the University.
- B. University support is defined as financial or other support, regardless of origin, which is used in the discovery or development of Intellectual Property and is provided through University channels.  
In the absence of University support, rights of ownership of Intellectual Property remain with the Inventor. Provision of an appointment shall not in and of itself be construed as University support for purposes of this definition.
- C. The University may decline to accept any rights of ownership by assignment or otherwise, in which case all rights revert to the Inventor.
- D. When software or other unpatented tangible research property (e.g., cell lines and data sets) is developed by faculty using University support, the University will own all rights to such property, including copyright (subject to agreements with appropriate funding sources).
- E. Copyright to, and royalty from, literary or scholarly works in tangible or electronic form (e.g., textbooks and other curricular materials, reference works, journal articles, novels, music, photographs, etc.) produced by faculty members as a part of their usual teaching, service, and research activities, and which do not result directly as a specified deliverable from projects funded in whole or in part by the University or a sponsored research agency shall belong to the faculty who prepared such works and may be assigned or retained by them.

### **V. Revenue from Intellectual Property**

#### **A. General Principles**

Revenues received as a result of Licensing Agreements in the form of cash royalties and/or equity holdings shall be distributed in such a manner as to encourage technology development within and technology transfer from the University. "Revenues" shall not include funds received for research support.

1. University costs for patent prosecution, licensing, and license maintenance, shall be reimbursed from Gross Revenues.
2. All shares of revenue, including the inventor's, should contribute to the reimbursement of University costs for patent infringement actions. The manner and amount of such reimbursement will be determined by consultation between the Division Dean and the President so as to maintain fairness and adequate incentives in the distribution of revenue.
3. The schedule for distribution of Net Revenues shall be designed to provide personal incentives to Inventors
4. The support and further development of technology transfer offices and functions shall be augmented from the distribution of Net Revenues to the Schools.
5. The portion of revenues distributed to the Inventors' laboratory(s) shall be limited to avoid imbalance within the Inventors' department(s).
6. Continued sensitivity to conflicts of interest require that certain types of research on a licensed Invention by its Inventor(s) and/or the University may be disallowed whatever the funding source. Sponsored research to advance the state of the art of existing Inventions is encouraged under those circumstances where the Inventor's participation presents little, if any, opportunity to compromise the integrity of the Inventor and the University. For review of cases involving potential Conflicts of Interest, the Division should create a faculty committee or committees to review and make recommendations to the Dean.

**B. Schedule for Net Revenue Distribution from Intellectual Property**

1. This policy provides for the distribution of revenues from both net cash royalties and equity shares resulting from intellectual property agreements. The distribution of revenue is in two tiers: at or below \$300,000 per year as shown in Table I

**Table I. Net Revenue Distribution from Intellectual Property**

| Annual Net Revenue | Inventors' Personal Share | Inventors' Research Share | Inventors' Dept(s)* Share | School Share* | University Share |
|--------------------|---------------------------|---------------------------|---------------------------|---------------|------------------|
| First \$300K       | 35%                       | 15%                       | 15%                       | 30%           | 5%               |
| Over \$300K        | 35%                       | 15%                       | 15%                       | 25%           | 10%              |

\* Limits to the Inventors' Laboratory Share are set forth in Appendix I.

\*\*Proportions distributed to the Department and School should be reversed if the Department pays patent prosecution costs.

If an Inventor has appointments in the Applied Physics Laboratory and another Division of the University, the Revenue distribution policy of the Division of primary appointment shall govern.

2. The schedule for revenues from intellectual property from inventors at APL is distributed according to Table II.

**Table II. Distribution of Revenues from Intellectual Property for APL**

| Annual Net | Inventors' Personal | Inventors' | Inventors' Dept(s)* | School | University |
|------------|---------------------|------------|---------------------|--------|------------|
|------------|---------------------|------------|---------------------|--------|------------|

| Revenue       | Share | Research Share | Share | Share* | Share |
|---------------|-------|----------------|-------|--------|-------|
| Over \$5,000* | 30%   | 15%            | 15%   | 30%    | 10%   |

\*First \$5000 of Gross Income to Inventor

### C. Equity Holdings

With careful safeguards, Licensing Agreements involving equity participation by the University and its faculty are permitted. Under appropriate circumstances, research sponsored by companies in which faculty and/or the University have equity holdings may also be permitted. Establishment and execution of specific rules and procedures for implementing the policy guidelines provided below are the responsibility of the Divisions.

1. University contracts with licensees must be negotiated by the appropriate University or Divisional office and not directly by the Inventor.
2. The Inventors' and the Institution's equity interest will not be traded until after a stipulated Trigger Date.
3. The Inventors' equity interest will be held in escrow for the benefit of the Inventor by the University.
4. Any association of the Inventor(s) with the licensee will be subject to disclosure, including compensation, prior approval, and annual reporting.
5. Divisions from which the Intellectual Property originates must have adequate policies and procedures for conflict of interest consistent with those outlined in section V.A.5.

### D. Distribution of Equity Revenue

Unlike royalty revenue, equity revenue distribution is sporadic and likely to occur only once. Cash received from the sale of shares allocated to the Inventors' Laboratory(s) Share will be apportioned in equal amounts annually to the appropriate laboratory(s) over the remaining life of the relevant U.S. Patent or the remaining years under the relevant License Agreement, whichever is shorter, unless the Dean of the School of the Inventor(s) and the Inventor(s) agree to another method of distribution. The distribution schedule for equity revenue distribution is shown in Table I.

### E. Distribution After Termination or Death

1. The Inventors' personal share shall survive termination of affiliation with the University and, in the event of death of the Inventor, shall inure to his/her estate.
2. Upon termination of the Inventor's affiliation with the University, the Inventors' Laboratory Share, both the unspent portion and future allocations, will be reallocated to the Inventors' Department, School and University portions according to the applicable royalty distribution policy.

## VI. Additional Provisions

### A. Research

The University shall only enter into a research contract or other binding commitment to perform work that can reasonably be expected to be publishable, provide educational opportunities, and/or be in the public interest.



#### B. Use of the University's Name

All written or broadcast material containing the University's name for advertising, marketing, or other promotional purposes shall be submitted for approval to the President prior to use of such material. A statement on the use of the University's name shall be included in all appropriate contracts between industry (company) and the University.

#### C. Publication

The University shall enter into contracts or other binding commitments to conduct research and training only if they permit the disclosure and publication of research. Delays in publication up to 120 days may be agreed to in order to permit time for filing of patent applications.

#### D. Confidentiality

The faculty Shall not undertake research in which the sponsor:

1. prohibits the faculty member from disclosing the existence of the agreement; or
2. restricts the faculty member's public disclosure of information developed by that faculty member (see section C. above).

#### E. Avoidance of Conflict of Interest and Conflict of Commitment

1. Trust, good faith, and open discussion of controversial issues among colleagues have always been central to the life of the University. The activities of faculty members must be governed by thoughtful consideration of individual circumstances, rather than rigid rules. The requirement for reporting as outlined in the following paragraph is meant to ensure that conflicts of commitment and conflicts of interest will be considered openly and fairly, and that appropriate action will be taken to resolve those conflicts. Reporting thus serves to protect individual faculty members, The Johns Hopkins University, and academic freedom in general.
2. In cases where faculty enjoy rights to Intellectual Property under this policy, they have an obligation to report fully any outside activities and interests related to their teaching, research, or service to their Department Chair, Dean or other designated University official and obtain their prior approval before the activity begins. The report must be in writing and must include the names of companies for whom he/she consults, the number of days committed to each consulting agreement and a copy of any proposed consulting agreements associated with Intellectual Property. Consulting agreements must be reviewed for compliance with University policies and government regulations and approved by the appropriate Divisional office before the consultation can begin.
3. The holding of equity interest in a Commercial Venture by the University and faculty Inventor, and the receipt of royalties and acceptance of consultant fees, places a burden on the Inventor to report such financial interests in all relevant papers prepared for publication or oral presentation, in order to avoid later accusation that adverse results had been suppressed in order to enhance the marketability of the Invention.

#### F. Grievances:

In the event an Inventor has a grievance about the University's handling of his/her Intellectual Property, he/she may appeal to the appropriate Divisional mechanism. An Investigator may take a grievance to the Office of the Provost if: his/her Division has no appeals mechanism or;

he/she wishes to appeal a Divisional decision.

## APPENDIX I

### LIMITS ON INVENTORS' LABORATORY SHARE OF NET REVENUES

In the absence of a Divisional policy to the contrary, and for Net Revenues exceeding \$300,000 for each license agreement, there is a cap on the Inventor's Laboratory Share in any given calendar year. This cap is the greater of \$100,000 or the average sponsored research expenditures per faculty member in the pertinent discipline area. This average is computed using the modified total direct expenditure (MTDE) divided by the number of full time equivalents devoted to sponsored projects in the discipline area for the tenure-track faculty members as reported. Ten discipline areas may be grouped according to academic and administrative Divisions with the University as follows:

- 1) School of Medicine - Clinical Departments
- 2) School of Medicine- Basic Sciences Departments
- 3) School of Hygiene & Public Health
- 4) G.W.C. Whiting School of Engineering
- 5) School of Arts & Sciences - Natural Sciences Departments
- 6) School of Arts & Sciences - Social Sciences Departments
- 7) School of Arts & Sciences - Humanities Departments
- 8) School of Nursing
- 9) School of Continuing Studies
- 10) The Peabody Institute

The \$100,000 figure can be adjusted yearly for inflation at the President's discretion. The average shall be for the previous fiscal year. In the event there are multiple tenure track faculty Inventors, the cap will be applied individually for each such faculty Inventor's Laboratory Share. The excess above the cap in any calendar year will be distributed twenty-two percent (22%) to the Inventor's Department, fifty-six percent (56%) to the School, and twenty-two percent (22%) to the University.

## APPENDIX II

### GLOSSARY

Commercial Venture: A Commercial Venture shall mean a start-up company, limited partnership, joint venture, or any other entity that has obtained a License to a Division's

technology that involves equity. Ownership of a company's stock by the University in the endowment investment pool (EIP) will not alone define the company as a Commercial Venture.

Copyright: Works of authorship in any tangible medium of expression can be copyrighted. Copyright does not protect mere ideas; it is the reproduction of the particular expression of the idea that receives protection by the federal statute known as the 1976 Copyright Act. A copyright gives an author or creator of an original expression (or in certain instances, the author's employer) the exclusive right to reproduce such expression; to distribute the expression (the right to control the first sale of an embodiment of a copyright); to display the original embodiment; and to prepare derivative works. To establish copyright it is necessary, prior to first Publication, to mark the work with the copyright symbol, ©, as well as the date and the name of the copyright owner.

Equity or Equity shares: Equity or equity shares shall mean shares of common or preferred stock, warrants, options, convertible instruments, units of a limited partnership, or any other instrument conveying ownership interest in a Commercial Venture.

Gross Revenues: Gross Revenues shall mean all income received by the University under a License Agreement. Excluded from Income shall be research funds (unless the research funds offset future royalty obligations) and maintenance fees received under the License agreement.

Income: Income is the revenue paid as consideration for a **License**. Income includes one time payment or on-going revenues such as **License** fees, maintenance fees, minimum annual royalties, earned royalties, reimbursement of **Patent** expenses, and equity.

Intellectual Property: Intellectual Property is any new and useful process, machine, composition of matter, life form, article of manufacture, software, **copyrighted** work, or **tangible property**. It includes such things as new or improved devices, circuits, chemical compounds, drugs, genetically engineered bacteria, data sets, software, musical processes, or unique and innovative uses of existing Inventions. Intellectual Property may or may not be Patentable or copyrightable. Intellectual Property is created when something new and useful has been conceived or developed, or when unusual, unexpected, or non obvious results have been obtained with an existing Invention which can be practiced for some useful purpose. Intellectual Property can be created by one or more individuals, each of whom to be an Inventor must have conceived of an essential element or have contributed substantially to its conceptual development.

Inventor: An Inventor is one who makes a creative input to the conception of the Invention. U.S. **Patent** statutes require that only the true Inventor(s) be named on the Patent. A coauthor or one who merely reduces the Invention to practice (i.e., successfully uses the Invention in its intended manner) is not an Inventor unless he makes a creative input to the conception.

Inventors' Laboratory: The Inventors' Laboratory is defined as the facilities which provide the opportunity for experimentation, observation and/or practice of the Inventors' particular field of study.

Invention: A creation of Intellectual Property which did not exist previously.

License: A License is a contract which awards to a party other than the owner(s) of the **Intellectual Property** the right to make, use, or sell the **Intellectual Property**. Licenses may be awarded on an exclusive or non-exclusive basis and may provide for payment of fees,

royalties, or other income to the owner(s) of the **Intellectual Property**.

License Agreement: A License Agreement shall mean an agreement conveying rights in a School's technology to the Commercial Venture, and under which equity is received as partial or full consideration.

Net Revenue: Net Revenue shall mean Gross Revenue less unreimbursed Patent prosecution expenses, licensing expenses associated with a particular License Agreement, and that portion of the expenses connected with infringement actions which have been agreed upon between the Division Dean and the President as appropriate for reimbursement from Gross Revenues.

Patent: A U.S. Patent is a grant which gives the owner of the Invention covered by the Patent the right to exclude all others from making, using, or selling the Invention in the United States. In the United States, a Patent provides that exclusive right for 17 years. To qualify for U.S. Patent protection, an Invention must be deemed new, useful, and non-obvious to one skilled in the art, and must not have been in public use or on sale in the United States or described in a printed **Publication** as defined below, anywhere in the world for more than one year prior to the filing date of the U.S. Patent application.

Patent rights in many foreign countries can be lost if there has been any disclosure of the Invention, verbal or written, anywhere in the world prior to filing the foreign Patent application. However, if the U.S. Patent application has been filed prior to any disclosure of the Invention, Patent applications may still be filed in foreign countries within one year of the U.S. filing date in those countries which adhere to an International Convention even if there has been an intervening **Publication**.

Publication: As related to Inventions and Patents, a Publication is an enabling public disclosure of an Invention and may be verbal or printed. An enabling disclosure is one which will teach one skilled in the art how to practice the Invention. Printed Publications include abstracts and, in certain instances, grant proposals, funded or unfunded. A public disclosure is a non-privileged Communication to' one or more individuals from outside the University community. It is important to emphasize that the issuance of a Publication may jeopardize one's ability to secure a foreign Patent. Questions surrounding the implications of Publication can be addressed by the Patent Management Office or the appropriate technology transfer office.

Research Contract: A Research Contract shall mean a separate agreement to conduct research related to licensed technology.

Tangible Property: Tangible Property is anything having a Physical embodiment (e.g., cell lines, software, devices, compositions of matter) whether or not **patentable** or **copyrightable**.

Trigger Date: Trigger Date shall mean the date the equity held by the University and by Divisional faculty Inventors is no longer subject to restrictions imposed by the University and may be traded, subject to any remaining restrictions imposed by law, the underwriters, or the Commercial Venture.