

## University Patent Policy

### Introduction

Michigan State University's primary obligation in conducting research and scholarly activities is the pursuit of knowledge for the benefit and use of society. Consistent with its public service mission and with the law and regulations governing federally-funded research, the University endeavors to foster the development of its inventions and discoveries through patenting and licensing to industry. A patent provides an incentive for a company to license an invention from the University and to invest in developing and marketing products based on the invention. Licensing proceeds provide a means for the University to recognize and reward the creative research efforts of inventors and to support additional University research.

#### I. Applicability and Administration of Policy

This Policy governs the ownership, protection, use, and commercialization of inventions and discoveries of University faculty, students, and staff.<sup>1</sup>

The President shall be responsible for administering this Policy and managing University Inventions. In consultation with the President and the Provost, the VPRGS may authorize exceptions to this Policy that he/she determines to be in the best interest of the University.

#### II. Ownership

- (a) All discoveries or inventions by a University employee which: (i) result from research which is supported by University funds or by funds controlled or administered by the University; or (ii) were created in a field of work or study directly related to that employee's scholarly or other academic endeavors at the University; or (iii) have been developed in whole or in part through the use of University resources or facilities, shall belong to the University (hereinafter "University Inventions").
- (b) The University does not own discoveries or inventions created by students unless the student (i) is employed by the University (in which case the University's ownership is determined under the previous paragraph), (ii) made the discovery or invention using funds controlled or administered by the University, except grants or awards specifically designed to encourage student innovation and entrepreneurship, or (iii) made the discovery or invention in whole or in part through use of University resources or facilities other than those generally available to students. Students may elect to assign to the University their intellectual property rights in inventions or discoveries which the University does not own. If the University accepts such an assignment, the University will administer the student's discovery or invention as if it were a University Invention under this Policy.
- (c) This Policy is applicable to discoveries and inventions made by faculty members and other University employees who engage in approved outside work for pay under the applicable University policy. An employee must disclose to MSU Technologies ("MSUT") inventions and/or discoveries made during the performance of outside work for pay. Ownership of discoveries and inventions made by faculty members and other University employees during approved outside work for pay will be determined by MSUT in accordance with guidelines in

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<sup>1</sup> The University's policy concerning works of copyright is addressed separately in the *Development of Copyrighted Materials* policy.<sup>1</sup>

the companion handbook to this Policy. Faculty members or other University employees engaged in approved outside work for pay shall not assign any rights in inventions or discoveries created during the outside work for pay unless the assignment is submitted to MSUT for its review and assessment prior to the start of the outside work for pay and MSUT determines that the inventions or discoveries to be assigned are not University Inventions.

- (d) The University may choose to assign its ownership of University Inventions to their inventors or others when it is deemed to be in the best interest of the University to do so. The VPRGS will provide guidelines for such circumstances in the companion handbook to this policy.

### III. Assignment; Duty to Cooperate

All individuals subject to this Policy are (a) obligated to assign and do assign to the University all right, title, and interest in and to all University Inventions of which they are inventors; and (b) have a duty to cooperate with the University when it seeks intellectual property protection for such University Inventions and in complying with legal obligations to research sponsors relating to such University Inventions. The University shall control the administration and disposition of University Inventions in its sole discretion.

### IV. Obligation to Disclose University Inventions

In order to assist the University in protecting University Inventions, University employees and students shall report any University Inventions to MSUT in a timely manner. As a general rule, such reports must be made prior to disclosing such discoveries or inventions through publications, presentations, or communications with third parties (including research sponsors) in a manner which may inhibit or preclude the University from obtaining patent protection.

### V. Distribution of Revenue and Equity from Technology Transfer

(a) When they occur the economic benefits arising from the commercialization of University Inventions will be shared among the inventor(s), the inventor's major administrative unit (MAU), and the University.

(b) The University will recover all direct cumulative expenses incurred for the patenting, protection (including litigation related to the patent), marketing, and licensing of each University Invention from its licensing proceeds before distributing the remaining net proceeds.

(c)

(i) For University Inventions with more than one inventor, all inventors must agree in writing to each inventor's share of the total percentage of net proceeds allocable to the Inventor(s), as set forth below. Absent such an agreement, the University will divide the inventors' share of the net proceeds equally among them.

(ii) Except as set forth in section V(c)(iii), distributions of net licensing proceeds will be made as follows:

<b>Net Licensing Proceeds on a Particular University Invention</b>	<b>Inventor(s)</b>	<b>Major Administrative Unit</b>	<b>University</b>
First \$100,000	50%	25%	25%
Next \$900,000	30%	30%	40%
Over \$1,000,000	30%	10%	60%

(iii) The distribution of net licensing proceeds obtained under technology transfer agreements effective before \_\_\_\_\_, 2017 will be made as follows:

<b>Net Licensing Proceeds on a Particular University Invention</b>	<b>Inventor(s)</b>	<b>Major Administrative Unit</b>	<b>University</b>
First \$5,000	100%	0	0
Next \$100,000	33 1/3%	33 1/3%	33 1/3%
Next \$400,000	30%	30%	40%
Next \$500,000	20%	20%	60%
All Additional Net Licensing Proceeds over \$1,005,000	15%	15%	70%

(d) Consideration received by the University in connection with the commercialization of a University Invention may include shares of stock or other securities. The University or the Michigan State University Foundation, as the University's assignee, shall control the administration and disposition of any equity so received in its sole discretion, provided that any net proceeds from the liquidation of the equity received will be distributed as license proceeds in the manner described above.

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## Patents - Faculty Handbook

### VI. RESEARCH AND CREATIVE ENDEAVOR *(Cont.)*

This policy was approved by the Board of Trustees on November 15, 1930 and revised on February 14, 2001.

Consistent with its public service mission and with regulations governing federally-funded research, the University endeavors to foster the development of its inventions and discoveries through patenting and licensing to industry. A patent provides an incentive for a company to license an invention from the University and to invest in developing and marketing products based on the invention. Licensing proceeds provide a means for the University to recognize and reward the creative research efforts of inventors and to support additional University research.

Any discovery or invention which a) results from research carried on by, or under the direction of, any employee of the University which is supported by University funds or by funds controlled or administered by the University, or b) results from an employee's duties with the University, or c) has been developed in whole or in part through the utilization of University resources or facilities not available to the general public shall belong to the University ("University Inventions").

In order to assist the University in protecting University Inventions, University employees and students (including postdoctoral appointees, graduate and undergraduate students) shall disclose any University Inventions to the University prior to disclosing such discoveries or inventions through publications, presentations, or communications with third parties (including research sponsors) in a manner which may inhibit or preclude the University from obtaining patent protection. Such disclosure may also be required to comply with legal and/or contractual obligations owed to governmental or non-governmental research sponsors. University faculty shall not disclose University Inventions in the course of performing Outside Work for Pay unless and until the University has had the opportunity to take the steps necessary to protect University Inventions through patent or otherwise.

The University's goal is to manage University Inventions in such a manner as to produce the greatest benefit to the University and to the public. The University may, but is not obligated to, seek to protect any University Inventions by patent or otherwise. After receiving disclosure of a University Invention, the University may elect to assign title to the University Invention to the inventor(s).

The University will recover all direct expenses incurred for the patenting, protection and licensing of each University Invention from its licensing proceeds before distributing the net proceeds remaining among the inventor(s), the inventor's major administrative unit, and the University according to the following schedule:

Net Licensing Proceeds on a Particular University Invention	Inventor(s)	Major Administrative Unit	University
First \$5,000	100%	0	0
Next \$100,000	33 1/3%	33 1/3%	33 1/3%
Next \$400,000	30%	30%	40%
Next \$500,000	20%	20%	60%
All Additional Net Licensing Proceeds over \$1,005,000	15%	15%	70%

The President shall be responsible for administering this policy and managing University Inventions, including technological know-how that may be licensable but may not be patented or patentable. The President has delegated this authority under this policy to the Vice President for Research and Graduate Studies. The President may authorize exceptions to this policy that she/he determines to be in the best interest of the University.

Particular University Inventions or licensing proceeds may be transferred to the Michigan State University Foundation for administration consistent with the net licensing proceeds distribution table above.

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## Proposed Patent Policy Summary of Key Changes

The proposed patent policy was drafted in order to keep the University's policy consistent with the best practices identified by the Association of American Universities (AAU) Guidelines and after a thorough review of similar policies at other leading public research universities. Below are the key changes that are being made.

### Affirmative Assignment

This is a small change needed to address the interpretation of the *Stanford University v. Roche Molecular Systems, Inc.* case by the U.S. Supreme Court and changes in patent law (American Invents Act, 2011). The existing MSU patent policy is silent on affirmative assignment of University Inventions. The new policy clarifies this in Section III to state "All individuals subject to this Policy are (a) obligated agree to assign and do assign" University Inventions to MSU. While a small legal detail, it can be problematic if there is ever a dispute over ownership of a University invention that becomes the subject of litigation.

### Student Intellectual Property (IP)

The existing policy did not explicitly address ownership of student IP. This caused some confusion in interpretation of the following sentence in the existing patent policy: "...c) *has been developed in whole or in part through the utilization of University resources or facilities not available to the general public shall belong to the University ('University Inventions')*." Since dormitories, classrooms, and the like are not available to the general public, does this imply that IP developed by students in classroom projects or participation in entrepreneurial education belong to the University? This is clearly not the intent nor the desired outcome. The proposed policy clarifies in Section II(b) that students own their IP unless one of the three university ownership qualifiers (Section II(a) of the proposed policy) is triggered.

#### Example:

Student develops a flying drone in the context of working with fellow students in a "builders day" entrepreneurial event - no university ownership triggers, the student owns this IP.

A graduate student working as a research assistant under the direction of her professor supported by an NSF grant create a new transgenic plant – Ownership triggers (i) supported by funds administered by university, and (iii) developed in whole or in part through university facilities are both present, therefore University owns this IP.

The companion handbook provides more details to assist with administration of student IP.

### Minimum Inventors Royalty Share

In the existing patent policy, the minimum royalty share for university inventors is 20% on net licensing revenues between \$505,000 and \$1,005,000, and is 15% on net licensing revenues over \$1,005,000. This current standard is out of the mainstream. In the proposed patent policy, the inventors' royalty share of 30% on net licensing revenues over \$100,000 is in the mainstream of CIC schools and other best practice schools. In reality, this applies to only a very small number of licenses.

## IP Created in the context of Outside Work for Pay

The University recognizes that, through consulting and other relationships with government, industry, not-for-profit organizations, and others outside the University, its faculty members can make valuable contributions off campus while enhancing their expertise in their discipline. Inventions made in the course of University-sanctioned outside work for pay (OWP) can lead to conflicts. Faculty members who consult for industry or hold temporary industry jobs (e.g. summer work) are likely to be asked to assign ownership of inventions to their industry client or employer.

While in the current policy (Section II(c)), we implicitly claim the rights to inventions made in the course of OWP, in reality we do not see any invention disclosures to MSU from OWP activities. The proposed policy provides clarity for cases where the faculty member is working on the solutions to a company problem and may be creating IP that may belong to the company in the course of solving the problem. By requiring that all such IP is disclosed, we provide for greater compliance and transparency and increase the likelihood that we are capturing all University inventions.

## University May Not Assert Ownership

The current patent policy is silent on the situation when the University may choose not to assert ownership to University Inventions to which it might otherwise be entitled to when it is deemed to be in the best interest of the University to forego its ownership claim. The silence on this matter is a source of frequent angst and confusion when it is implied that the University must claim ownership on all inventions in many situations when it is contrary to our interests to do so or be in violation of the MSU patent policy.

As a land grant university, MSU seeks to maximize its impact in teaching, research, and society engagement. Accordingly, there are circumstances when it is in the University's interest not to assert ownership:

- Testing services provided by MSU to industry partners such as clinical trials, agricultural field trials, process verification studies and process scale-up studies (e.g. Michigan BioEconomy Institute);
- OWP arrangements when the faculty member is working on a project where the company owns all of the background IP, and the IP created during the project is unrelated to the faculty member's research and scholarly work at MSU.
- When faculty are working with companies that have licensed MSU technology in order to improve the effectiveness of the licensed technology toward a commercial outcome. Under such circumstances, where the primary purpose of the outside-work-for-pay is to enhance the technology transfer of the licensed IP, and the invention is an improvement on a technology already licensed from MSU to the company under a license agreement in good standing, MSU may not assert ownership to inventions by faculty who are named inventors. This change removes a major obstacle inhibiting venture capital investments in MSU startups.

## Exceptions to Policy

The current patent requires any exceptions or interpretations of the Policy to be authorized by the President of the University. In the proposed policy, the VPRGS in consultation with the President, may authorize exceptions to the policy.

# MICHIGAN STATE UNIVERSITY

November 10, 2016

University Committee on Faculty Affairs (UCFA)  
Michigan State University  
East Lansing, MI 48824

Dear UCFA Members:

I am writing on behalf of the MSU Chapter<sup>1</sup> of the National Academy of Inventors<sup>2</sup> (NAI) to express our enthusiastic support of the proposed changes to the University Patent Policy.

The MSU Chapter of the National Academy of Inventors was officially established in the spring of 2014, and the inaugural class of 19 select faculty and administrator members were inducted into the Academy at a ceremony on April 23, 2015, at the Huntington Club on the 4<sup>th</sup> Floor of Spartan Stadium. Our faculty members represent MSU's leaders in invention, patenting, and commercialization.

The NAI-MSU Chapter recently met to discuss, among other things, the modifications being proposed to the University Patent Policy. After reviewing the proposed changes in detail, the NAI-MSU members feel the updated patent policy serves to clarify:

- Affirmative assignment of ownership rights for MSU patents
- Student intellectual property rights
- The increase in royalty rates on net licensing revenues over \$100,000
- The need for disclosing any IP resulting in Outside Work for Pay by faculty
- Circumstances when it is in the University's interest not to assert IP ownership

We are hopeful that these patent policy changes will help to improve and enhance the culture of innovation and entrepreneurship on campus while bringing our policy into the mainstream of peer universities. These improved changes can also help to promote recruitment and retention of faculty, increase student success through participation in real world research, provide benefits to the public from applied research that seeks to address global challenges, and increased prestige from a stronger university reputation. Thus, we are supporting the proposed changes.

Sincerely yours,



Evagelyn Alocilja, PhD, Professor  
President, MSU Chapter, National Academy of Inventors  
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**<sup>1</sup>Members of the MSU Chapter of the National Academy of Inventors**

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Anil	Jain	Computer Science & Engineering
Dennis	Miller	Chemical Engineering & Materials Science
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Thomas	Pinnavaia	Chemistry
Mark	Worden	Chemical Engineering & Materials Science
Ramakrishna	Mukkamala	Electrical and Computer Engineering
Stephen	Hsu	Administration
Satish	Udpa	Administration

<sup>2</sup>The National Academy of Inventors® was founded at the University of South Florida in 2010 to recognize and encourage inventors who have a patent issued from the U.S. Patent and Trademark Office (USPTO); enhance the visibility of university technology and academic innovation; encourage the disclosure of intellectual property; educate and mentor innovative students; and translate the inventions of its members to benefit society. The NAI is a 501(C)(3) Nonprofit Member organization comprised of U.S. and international universities, governmental and nonprofit research institutions with over 3000 individual inventor members and Fellows spanning more than 200 institutions, and growing rapidly. (Additional information about the NAI can be found on-line at: <http://www.academyofinventors.com/default.asp>)