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Policy on Inventions, Patents, and Technology Transfer

I. Preamble and Objectives

Duke University is dedicated to teaching, research, and the expansion of knowledge. Although the university does not undertake research or developmental work principally for the purpose of developing patents and commercial applications, patentable inventions sometimes result from the research activities carried out wholly or in part with university funds and facilities. It is the policy of the university to assure the utilization of such inventions for the common good and, where necessary, to pursue patents and licenses to encourage their development and marketing.

This policy applies to university employees who are defined for purposes of this policy as all faculty, staff, and other persons receiving compensation from the university for services rendered, as well as students and graduate assistants, whether compensated or not, who work on any research project under university control.

Duke University has established the following policies and procedures with respect to inventions, patents, and technology transfer in order to:

- A. Promote the university's academic policy of encouraging scientific research and scholarship;
- B. Serve the public interest by providing an organizational structure and procedures through which inventions which arise in the course of university research may be made readily available to the public through established channels of commerce;
- C. Encourage, assist, and provide tangible reward to members of the university community who make inventions processed under this policy.
- D. Establish principles and uniform procedures for determining the rights and obligations of the university, inventors, and sponsors, with respect to inventions arising during the inventor's and sponsor's association with the university;
- E. Enable the university to enter into institutional agreements with federal research funding agencies;
- F. Produce funds for further scientific investigation and research and for the overall needs of the university.

II. Administrative Responsibility

- A. The president of the university shall be responsible for administrative matters relating to inventions, patents, and technology transfer and shall represent the university in all matters of policy affecting the university's relations with inventors, government, private research sponsors, industry, and the public. The president may designate another senior administrative officer to carry out these responsibilities in whole or in part.
- B. Director of the Office of Science and Technology. The president of the university shall appoint a director of the Office of Science and Technology who may be a full or part-time employee of the university or a recognized patent management organization. The director of the Office of Science and Technology shall:
 - 1. Establish liaison with appropriate faculties to monitor research and to assist in the identification of potentially patentable discoveries and in the reporting of such discoveries;
 - 2. Establish liaison with federal and private sponsors of research and ensure compliance with any provisions in sponsored research agreements regarding inventions;
 - 3. Receive all disclosures of invention submitted under this policy;
 - 4. Determine the ownership of and equities involved in inventions, in accordance with Section V below;
 - 5. Determine whether an invention in which the university has an equity is patentable;
 - 6. In consultation with the inventor, evaluate potential commercial use and investigate possible courses of action for patenting and/or marketing inventions in which the university has an equity;
 - 7. Negotiate patent licensing and technology transfer agreements;
 - 8. Maintain complete records on all disclosures and other patent matters of interest to the Duke administration;
 - 9. Serve as an ex-officio member of the University Patent Policy Committee in the capacity of secretary, and prepare an annual report to the committee;
 - 10. Promote the cross-fertilization of ideas within the Duke scientific community consistent with the need for confidentiality of potentially patentable subject matter until patent applications have been filed.
- C. University Patent Policy Committee. The president of the university shall appoint a University Patent Policy Committee consisting of five members. Three committee members shall be selected from the faculty

and two from the administration. One faculty member shall be selected from the School of Medicine and one from the Pratt School of Engineering. The chairman shall be designated by the president of the university. The committee shall:

1. Receive and review the annual report of the director of the Office of Science and Technology and consult with the director of the Office of Science and Technology when requested.
2. Report to the president on the implementation of this policy, and recommend such new or different policies or guidelines as may be more suitable for the achievement of its objectives.
3. Sit as a tribunal for the resolution of specific disputes involving the ownership of and equities involved in inventions, on appeal from decisions of the director of the Office of Science and Technology.
4. Receive requests for interpretations of this policy and, after deliberation, recommend to the president such interpretations as it considers appropriate.

III. Invention Management

- A. For all inventions assigned to the university under this policy, the university will at no expense to the inventor make reasonable efforts to evaluate the interest to others in commercializing the invention, seek licenses and options for licenses, have applications for patents filed and prosecuted, and otherwise manage the inventions or arrange for their management by recognized patent management organizations. The university may assign such inventions to a foundation or corporation organized by the university for purpose of patent management.
- B. The university will normally evaluate potential commercial use of an invention prior to the filing of patent application. Options to license and other contractual arrangements appropriate in the circumstances will normally be sought as early as possible as a validation of potential commercial use. If the university determines that neither commercial possibilities nor the potential contribution to the public good warrants proceeding further, the invention will be returned to the inventor and shall belong to him unless such action is precluded by prior agreement with sponsors. The university shall make such determination within a reasonable time, in no event longer than one year from the date of disclosure.
- C. In licensing, sale, or other disposition of rights to inventions, the university will seek to guard against repressive practices. Royalty rates shall be reasonable and consistent with the goal of the university effectively to transfer technology in the public interest. Where feasible, the university will grant non-exclusive, reasonable royalty-bearing licenses to all qualified licensees. However, the university recognizes that non-exclusive licensing in many cases may not be effective in bringing the invention to the commercial market in a satisfactory manner and thus will grant an exclusive license if it determines that such is required in the public interest to encourage the marketing and eventual public use of the invention. In all cases, the university shall reserve to itself a right to make or have made and to use the invention within Duke University for its own purposes.
- D. If within a reasonable time from the date of issuance of the patent the university does not license or sell a patent assigned to it, ownership of the patent will revert to the inventor at his/her request.

IV. Report of Inventions

University employees who during their associations with the university invent a device, product, or method, whether or not on university time or with university facilities, shall cooperate with the university in defining the rights to such inventions by promptly reporting to the director of the Office of Science and Technology on the university's Invention Disclosure Form.

V. Ownership of Inventions and Supportive Technology

- A. Inventions resulting from research or other work conducted by university employees wholly on their own time and without use of university funds or facilities shall be considered the property of the inventor and may be patented and/or commercialized by the individual at the individual's expense. It is recognized that when the invention is within the specific subject area of the inventor's current and ongoing university research activities, disputes may develop concerning whether the work was conducted by university employees wholly on their own time and without use of university funds or facilities. In order to reduce the possibility of such disputes, it shall be the responsibility of the employee to provide his departmental chairman notice that he is engaging in research activities independently within the subject area of his current university research, and describe in such notice the focus of these independent research activities,

with a copy to the provost or chancellor for health affairs. In questionable cases, it shall be the responsibility of the inventor to demonstrate that the above criteria are present.

- B. Inventions resulting from research or other work conducted by university employees wholly on their own time, but involving some but not significant use of the university funds or facilities, shall be considered the property of the individual and may be patented and/or commercialized by the individual at the individual's expense. The university will not construe the payment of salary from unrestricted funds or the provision of office or library facilities as constituting significant use of university funds or facilities. However, a percentage of gross returns to the inventor shall be remitted, in recognition of the use of university facilities, to the university, as provided hereafter.
- C. Inventions resulting from research or other work conducted by university employees in whole or in part on university time or with significant use of university funds or facilities shall be considered the property of the university. Employees shall upon request assign to the university all rights and title to such inventions and shall make known and available to the university all supportive technology related to the same. Supportive technology is intended to include any non-patentable invention which would assist the university in achieving the goals of this policy. If the university decides not to request assignment of all rights and title to such an invention, and if there are no restrictions by any outside sponsor of the research, the university may release its proprietary interest to the inventor.
- D. Inventions arising from research financed by the U.S. Government are controlled by the terms of the applicable grant or contract. The university is obligated to report to the appropriate government agency all such inventions or discoveries for definition of the government's rights and interests. In cases where the government claims no patent rights or waives its rights, university patent policies will control, subject to such limitations as the government may impose.
- E. Inventions resulting from research or other work sponsored by nongovernmental entities are controlled by the terms of the research agreement, if applicable, and if not, by university patent policies.
- F. Where mutually agreeable between inventors and the university, and on terms and conditions acceptable to both, the university will accept by assignment, bequest, or other appropriate instrument, title to inventions falling in sections A and B above.
- G. Any dispute between the director of the Office of Science and Technology and the inventor as to the determination of equities in an invention shall be resolved by the University Patent Policy Committee. The decision of the University Patent Policy Committee may be further appealed to the president or, upon the president's referral, to the Board of Trustees.
- H. Any use of the university's name in connection with the commercialization of an invention by an individual shall be approved in advance by the university.

VI. Division of Income

- A. All income derived from inventions falling within Article V, section A above shall belong to the inventor.
- B. All inventions falling with Article V, section B shall be patented and/or commercialized, if at all, under a simple agreement between the university and inventor which shall provide for periodic reports of sales subject to royalties and for payment to the university of ten percent (10%) of gross income derived by the inventor as royalties on the invention. The president and senior officers may decide that such payment be reduced or eliminated if it appears that a 10% contribution is excessive under the circumstances.
- C. All income derived from inventions falling within Article V, section C shall be distributed in accordance with the following rules:
 - 1. The university will first deduct any direct expenses incurred by it in connection with the initial patenting and commercialization of the invention. Any such expenses incurred by the inventor with the prior approval of the director of the Office of Science and Technology will also be deducted and paid to the inventor.
 - 2. The university will then pay and distribute the income remaining after payment of direct expenses in the following manner:
 - a. income from \$0 to \$500,000:
 - (1) fifty percent (50 %) thereof to the inventor;
 - (2) ten percent (10 %) thereof to the Office of Science and Technology;
 - (3) ten percent (10 %) thereof to the inventor's laboratory until, in the discretion of the president after consultation with the chancellor of health affairs or the provost, this distribution equals the maximum amount which can reasonably be expended in that laboratory, after which any

excess shall be added to and distributed as a part of the twenty percent (20%) share to be distributed for research support in accordance with VI.C.2.a.(5) below;

- (4) ten percent (10 %) thereof to the inventor's department; and
- (5) twenty percent (20 %) thereof to provide research support in the university as determined by the president upon the advice and counsel of the chancellor for health affairs or the provost.

b. income from \$500,000 to \$2,000,000:

- (1) thirty-three percent (33 %) thereof to the inventor;
- (2) ten percent (10 %) thereof to the Office of Science and Technology;
- (3) fifteen percent (15 %) thereof to the inventor's laboratory until, in the discretion of the president after consultation with the chancellor of health affairs or the provost, this distribution equals the maximum amount which can reasonably be expended in that laboratory, after which any excess shall be added to and distributed as a part of the twenty percent (20%) share to be distributed for research support in accordance with VI.C.2.b.(6) below;
- (4) fifteen percent (15 %) thereof to the inventor's department;
- (5) seven percent (7 %) thereof to the inventor's school; and
- (6) twenty percent (20 %) thereof to provide research support in the university as determined by the president upon the advice and counsel of the chancellor for health affairs or the provost.

c. \$2,000,000 and higher:

- (1) twenty-five percent (25 %) thereof to the inventor;
- (2) ten percent (10 %) thereof to the Office of Science and Technology;
- (3) fifteen percent (15 %) thereof to the inventor's laboratory until, in the discretion of the president after consultation with the chancellor of health affairs or the provost, this distribution equals the maximum amount which can reasonably be expended in that laboratory, after which any excess shall be added to and distributed as a part of the twenty percent (20%) share to be distributed for research support in accordance with VI.C.2.c.(7) below;
- (4) fifteen percent (15 %) thereof to the inventor's department;
- (5) five percent (5 %) thereof to the inventor's school;
- (6) ten percent (10 %) thereof to a quasi-endowment fund established by the university to provide direct support for graduate and post-doctoral research, as the president of the university shall direct; and
- (7) twenty percent (20 %) thereof to provide research support in the university as determined by the president upon the advice and counsel of the chancellor for health affairs or the provost.

3.

- a. If for any reason the inventor ceases to be a university employee or, if not an employee is no longer studying or working in research at the university, then the disposition of the share to which that inventor's laboratory would have been entitled shall be determined by the school.
- b. For purposes of this Article VI.C., the word "inventor" shall include co-inventors as a group and related words such as "laboratory" shall include not only the singular but also the plural form of the word, as may be appropriate.
- c. For purposes of this Article VI.C., the dollar ranges in paragraphs VI.C.2.a. (0 to \$500,000), VI.C.2.b. (\$500,000 to \$2,000,000), and VI.C.2.c. (\$2,000,000 and higher) above, shall be adjusted by the director of the Office of Science and Technology as of July 1 of each year to reflect the change, if any, in the cost-of-living, such adjustment to be effective for the fiscal year from that July 1 through the following June 30. The cost-of-living adjustment to be made each year shall be the cost-of-living adjustment calculated by the Department of Human Resources of the university for use by that department in determining wage and salary levels for the fiscal year for which the adjustment of dollar ranges under this Article VI.C. will be effective (whether or not such wage and salary adjustments are implemented). In any year in which the Department of Human Resources of the university does not make such a calculation, then the director of the Office of Science and Technology shall obtain the same cost-of-living calculation from the Department of Human Resources which that department would have made for determining wage and salary levels if that calculation had been required by that department, for the purpose of making the adjustments required by this Article VI.C.3.c. The adjustments shall be published as

amendments to this policy no later than July 1 of each year in which such amendments are effective.

- d. For purposes of this Article VI.C., the net income referred to in paragraphs VI.C.2.a. (0 to \$500,000), VI.C.2.b. (\$500,000 to \$2,000,000), and VI.C.2.b. (\$2,000,000 and higher) above, as the same shall be adjusted from time to time, shall mean the cumulative net income earned from inventions.
- D. Income from inventions falling within Article V, section D, where the government claims no patent rights or waives such rights, shall be distributed in accordance with Article VI, section C above, unless the waiver or other agreement between the university and the government provides for a different distribution.
- E. In the case of inventions falling within Article V, section E, any royalties received by the university shall be distributed in accordance with Article VI, section C above, unless the contract between the university and the sponsor provides for a different distribution.
- F. Income from inventions falling within Article V, section F, shall be distributed in accordance with the agreement between the inventor and the university.

VII. Publication

Inventors should be aware that publication prior to the filing of a U.S. patent application is a bar to the grant of certain foreign patents and can bar the grant of a U.S. patent if it occurred a year earlier than the filing date.

VIII. Interpretation

Questions of interpretation concerning this policy shall be submitted to the University Patent Policy Committee and resolved, after consideration of the University Patent Policy Committee's recommendations, by the president or, upon the president's referral, by the Board of Trustees.

IX. Termination or Revision of Policy

This policy may be changed or discontinued at any time by action of the Board of Trustees. Such changes or discontinuance shall not affect rights accrued prior to the date of such action.

X. Agreements

The policy as amended from time to time shall be deemed to be a condition of initial or continuing employment of every university employee and a condition of enrollment and attendance of every student who works on any research project under university control. All such employees and students will be expected to sign agreements incorporating the terms of this policy; but failure to sign shall not affect the applicability of the policy nor relieve any employee or student from the obligations imposed by it. Any use of university funds or facilities after the effective date of this policy shall be subject to this policy.

XI. Effective Date

This revision of the policy on Inventions, Patents, and Technology Transfer shall be effective July 1, 1996.

Interpretations of the Policy on Inventions, Patents, and Technology Transfer

The university agrees to the following interpretations of its policy on Inventions, Patents, and Technology Transfer.

- Article III-A.

The university has created an Office of Science and Technology to manage all inventions assigned to it under this policy, and does not anticipate assigning any such inventions to an existing patent management organization such as Research Corporation. In the unlikely event the university decides to use such an organization for patent management, the inventor's agreement would be obtained in advance.

- Article IV.

To avoid the possibility of adverse impact on faculty members' private consulting arrangements, the university intends to amend its disclosure form to first request information concerning the basic idea of the invention (what it will do but not how it does it) and the circumstances of its conception and/or development (whether on university time or not, what funding sources were involved, etc.). If the director of the Office of Science and Technology concurs with the inventor that the invention is not one in which the university has equity under the patent policy, the remainder of the disclosure form need not be completed.

- Article VII.

Inasmuch as a publication prior to the filing of a U.S. patent application is a bar to the grant of certain foreign patents and can bar the grant of a U.S. patent if it occurred a year earlier than the filing date, it may be necessary in some circumstances to temporarily restrict publication for short periods of time. Accordingly, the university may request employees to delay the publication date of any publication which discloses an invention made within the scope of their duties to the university until after a U.S. patent application has been filed on the invention, but in no event longer than three months.