AN IN-DEPTH REVIEW OF THE

VANDERBILT UNIVERSITY PATENT POLICY

AND RECOMMENDATIONS FOR ITS REPLACEMENT BY

A POLICY ON TECHNOLOGY AND LITERARY AND ARTISTIC WORKS

A report
prepared by
The Patent Review Committee
Vanderbilt University

January 1993 - Second Revised Edition
(Original Report Issued June 1991; Revised October 1992)

TABLE OF CONTENTS

BACKGROUND REPORT

THE POLICY

PREAMBLE:

Sections I through IX and Appendices A & B of this Report provide background, history, and an explanation of the new proposed Policy on Technology and Literary and Artistic Works. The general text of these sections is not policy, and will not be included in the Faculty Manual, but rather will serve as explanation and legislative history to the Policy. Actual Policy language pertaining to each issue discussed generally in this background portion of the Report is inserted in *italics* type in the section of the Report dealing with that particular issue.

The complete text of the Proposed Policy on Technology and Literary and Artistic Works is printed in full as Appendix C at the end of this Report, beginning on page 58. It is this full text that will be the authoritative language of the new policy and will be printed in the Faculty Manual.

I. INTRODUCTION

The present Vanderbilt policy on Inventions, Discoveries, and Patents[1], hereafter referred to as the "Patent Policy", has undergone minor revisions in recent years, but no comprehensive review has occurred since its inception in the 1960's. In the intervening two decades, there has been a significant increase in the level of sponsored research and in the commercial value of the intellectual activities carried out at Vanderbilt. Twenty years ago, Vanderbilt received a total of $18 million in external research funds. By 1989, this amount had increased to $90 million. Twenty years ago, the primary funding agencies were the National Institutes of Health, the National Science Foundation, the Department of Energy, and the Department of Defense. Today, the university receives grants not only from these agencies but also from NASA, the Department of Commerce, the National Endowments for the Arts and Humanities, philanthropic foundations, and numerous private industries and pharmaceutical companies. In the 5 year period from 1975 through 1979, there were 15 disclosures made and 4 patents issued. For 1980-1984, there were 62 disclosures and 5 issued patents. Between 1985 and 1989, there were 118 disclosures and 18 patents issued. There has been a concomitant increase in the number and complexity of legal agreements, financial contracts, and federal laws governing intellectual property. The existing policy does not reflect the breadth or complexity of today's research environment.

In the past, the material covered by patents and copyrights defined almost the entirety of the University's intellectual property that was of any real commercial value. As a result, the primary emphasis of the Patent Policy was justifiably narrow. As technology has evolved and permeated all aspects of our society, however, additional areas of knowledge have demonstrated potential commercial value, even when unpatentable in the statutory sense. Some of this technical knowledge may be amenable to protection by copyright and some of it may not. Gaps in the Policy as it affects emerging technologies are then reinforced by weaknesses of the statutory intellectual property system that have recently begun to surface, and many situations arise in which the existing policy is vague and open to misinterpretation. The description in the current Policy of the role of the Patent Review Committee is also outdated and inconsistent with current practice.

Vanderbilt has been faced with a number of situations that could not have been envisioned 20 years ago:

> Unpatented computer software developed and sold by individual faculty members may return potentially large financial rewards, while placing the University and those faculty members in a position of substantial financial risk.
>
> Investigators may not be aware of the potential commercial applicability of their discoveries and inventions and thus may not seek legal protection of these creations or

---

[1]The Patent Policy is contained under the heading "Inventions, Discoveries, Patents" on pages 54-58 of the 1992-93 Faculty Manual. The chapter "Policy Guidelines for Sponsored Research" complements the Patent Policy and is found on pages 59 and 60 of the Faculty Manual.

their transfer to industry. Both the investigator and the University community as a whole fail to receive the subsequent financial and professional benefits.

As with any set of rules, there are individuals who follow not only the letter of the existing policy but also its philosophical intent, and thereby protect and benefit the whole University community. Others either accidently or intentionally strain the policy to its limits, and thereby deprive their colleagues of the shared benefit of commercialization of technology.

There is increased industrial activity at universities nationwide, which often leads to the exploitation of non-profit research to the detriment of the researcher and the university. Losses from such exploitation can be especially grave if the investigator lacks experience with intellectual property protection and licensing procedures. Our University needs a knowledgeable and sound approach to deal with a sophisticated industrial world. Often the promise of short-term gain causes faculty members to overlook potential long-term benefits, or to incur avoidable losses.

The net result of this evolution of technology and sponsored research is that the current Vanderbilt policy for commercialization of intellectual property has become outdated and inadequate. It no longer reflects the present academic, legal or commercial environments, and its ambiguities lead to widespread and possibly inequitable variations in its interpretation and application.

II. ACTIVITIES OF THE COMMITTEE

In the summer of 1989, the Office of the Vice-Chancellor for University Relations and General Counsel drafted a revised Patent Policy, which was circulated to Deans and Administrators for comment. A number of faculty members expressed their concern over some of the proposed changes. The Patent Committee[2] began examining both the proposed revisions and more general issues in the Fall of 1989. At the outset, the Committee recognized that any review of policies governing the transfer and commercialization of research results would best be undertaken with the overall mission and goals of the University community in mind. A policy governing technology and research property should promote research and scholarship and the transfer of their benefits to the public sector while maintaining academic freedom. Practices and procedures for determining the rights and obligations of the parties should further these goals while being based on principles that ensure fairness and uniformity of application. Any income produced by the transfer of research property should reward both the inventor and the University community as a whole by reimbursing the expenses of accomplishing the transfer and by providing funds for additional research.

Because of the breadth of the issues that had been raised, **the Committee believed that it would be prudent to restrict its present discussions to questions of intellectual property and ownership and exploitation. Questions regarding the negotiation of legal contracts and licenses, joint ventures, and sponsored research agreements will be addressed at a later date**

[2]Membership listed in Appendix A.

or will be referred to others.[3] After a review of the patent policies at six other universities, summarized in Appendix B, the Committee spent several months delineating the overriding principles that should govern a new policy. The level of Committee activity steadily increased to the point where bimonthly, two-hour meetings were being held. Over thirty substantive motions were considered and adopted. A drafting subcommittee was formed in December 1990 to finalize this report, which was then discussed and reviewed by the entire committee.

The Committee has proposed a number of important changes to the University Patent Policy, including changing the name of the policy to the "Policy on Technology and Literary and Artistic Works" and changing the committee name to the Technology Review Committee. This report provides a detailed discussion of the issues motivating these changes, and a copy of the proposed new Policy on Technology and Literary and Artistic Works is attached in full as Appendix C.

III. FACULTY RESPONSE AND SUBSEQUENT REVISIONS

This Report was initially issued in June 1991, with copies being sent to most departments, to the Faculty Senate Chair, and to the Senate Academic Policies and Services Committee. In addition, the full text of the Proposed Policy was printed in the September 30, 1991 Register, along with a front page headline article explaining the Policy and informing the University community that copies of the Report were available through the Office of General Counsel.

The Patent Review Committee has received less than a handful of comments from faculty since that time. The Academic Policies and Services Committee sent a memo to each department chair and dean in the fall of 1991 soliciting comments on the Proposed Policy, with a follow-up reminder in January 1992. The Committee received fourteen responses and considered these in its discussion of the Policy during the spring of 1992, which resulted in a detailed memo to Vice Chancellor and General Counsel Jeff Carr detailing the Committee's reactions. This memo indicated that the Committee perceived serious problems with the Proposed Policy, due in part to deficiencies that existed in the accompanying Report and its failure to explain adequately the application of the new Policy. A subsequent meeting of Committee members with representatives from the Office of General Counsel and the Patent Review Committee brought new perspectives to the attention of the Patent Review Committee.

In response to problems identified by the Academic Policies and Services Committee and its careful study of the Proposed Policy, the Patent Review Committee has revised its Report in several ways. First, a page has been added at the beginning to make clear that the bulk of the Report is discussion and legislative history and not authoritative Policy language. Second, this section has been added detailing the events that have occurred since the initial issuance of the June 1991 Report. Third, portions of actual Policy language have been inserted in italics type throughout the Report, each in the section that discusses the issue addressed by that portion of the Policy language. The entire policy is incorporated in this manner, but without headings and not necessarily in the order that appears in the complete policy statement in Appendix C. Fourth, hypothetical scenarios and questions, some based on actual examples that have occurred

[3]Hereafter, bold type will identify motions agreed to by formal votes of the Committee.

at Vanderbilt, have been developed and inserted into the text of the Report to illustrate more directly the application of the Proposed Policy as well as the existing Policy. These sections and other changes to the text and policy are delineated by a vertical line in the left margin. Finally, Appendix B, which details policies of other universities, was expanded to better enable comparisons. These revisions and additions have resulted in this October 1992 Report. There were several changes to the Patent Committee roster for 1992 - 1994 as compared to 1989 - 1992, as indicated in Appendix A.

In the course of the 1992-1993 review of the Policy by the Senate Committee on Business and Non-Academic Affairs, questions were raised regarding the legal status of the hypotheticals and the terms "equity" and "fair play," and how situations not covered by the Policy were to be treated. These issues were all addressed by the addition of a paragraph to the Policy that clarified the role of this report in future interpretations of the Policy:

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

An In-Depth Review of the Vanderbilt University Patent Policy and Recommendations for Its Replacement by a Policy on Technology and Literary and Artistic Works, a report prepared by the Patent Review Committee, dated January 1993 (Second Revised Edition), contains the history of this Policy and provides general principles and hypothetical examples. Issues not directly addressed in this Policy, including disagreements concerning its application or interpretation, will be addressed and resolved consistent with these general principles and hypothetical examples.

IV. GOVERNING PRINCIPLES

The Committee formulated seven important principles that set the tone for subsequent discussions: Academic Freedom, Equity, Mutual Trust and Goodwill, Fair Play, Faculty Governance and Review, Transparency, and Reasonableness in Licensing. These general principles underlie the more detailed sections of the Policy that seek to implement them and they constitute guidelines for future interpretation of the Policy.

A. Academic Freedom and the Preeminence of Scholarly Activities.

In our review of the existing Policy on Inventions, Discoveries, and Patents set out in the Faculty Manual, it became clear that the present wording did not clearly delineate one of the governing principles of the university: the preeminence of the missions of teaching and scholarship over that of the transfer and commercialization of research results. In the present Faculty Manual, this role is stated more clearly in the subsequent Chapter 3 "Policy Guidelines for Sponsored Research." To ensure that this principle would never become subordinate to commercial interests, the Committee agreed that the section of the Faculty Manual concerning "Inventions, Discoveries, Patents", should be revised to state at the outset that **the missions of teaching and scholarship are primary.** The text under the "Policy Guidelines for Sponsored Research" could serve as a guide for the new text. Furthermore, the new Policy should embrace the principle that **whenever the faculty member places his or her need for public disclosure for scholarly purposes above the contrary demands of commercialization or legal**

protection, his or her decision will prevail, consistent with contractual obligations previously undertaken by him, her, or the University.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

This Policy governs the ownership, protection and transfer of Technology (Inventions, Discoveries, and other Innovations) and Literary and Artistic Works created or authored by University faculty, staff, or students.

It is the purpose of this Policy to encourage, support, and reward scientific research and scholarship, and to recognize the rights and interests of the creator, author, inventor, or innovator ("Inventor or Creator"), the public, the sponsor, and the University. The University's commitment to teaching and research are primary and this Policy does not diminish the right and obligation of faculty members to disseminate research results for scholarly purposes, which is considered by the University to take precedence over the commercialization of Technology and Literary and Artistic Works. This Policy is intended to be consistent with the University's commitment to academic freedom, faculty involvement in policy development, and the Policy Guidelines for Sponsored Research as provided in the Faculty Manual.

EXAMPLE:

Hypothetical: A Vanderbilt faculty member in the medical center develops software that graphs important patient care information for use by health professionals. The software was tested and refined in the clinic with the help of clinic staff. The creator wants to put it into the public domain or treat it as "shareware" rather than commercialize it.

Comment - Proposed Policy: The use of Vanderbilt resources creates ownership rights in the University. However, if the inventor wishes to share the creation for no income or licensing fees, then the University will cooperate. No obligation to commercialize exists; but the creator has no rights to sell or license the invention to anyone else on his own.

Existing Policy: As software, the existing Policy reserves all rights of ownership to the University. No provision is made for cases in which the inventor wishes to distribute freely to the public. In practice, the University would usually apply the principles of the Proposed Policy.

B. Equity.

In the days when patents and copyrights represented the only form of research property having significant commercial potential, it was seldom an issue whether the policy regarding commercialization applied equitably across different disciplines and technologies. Those faculty and departments that produced commercially valuable results could benefit financially, but generally faculty and departments in non-technical disciplines were unable to derive income from commercialization of their research, with the notable exception of faculty who earned considerable income from writing successful texts. In some ways, the historical approach of allowing creators to retain the copyrights in their literary and artistic works was a partial redress

of this inequity between technical and non-technical disciplines, although this approach also served to reinforce academic freedom and independence in scholarly pursuits.

However, as technology has become weighted more towards information and less towards mechanical devices, the distinction between technological and non-technological departments has become less clear, and there is a growing need to apply an evolved policy more equitably across the entire University. It would be unfair if two people producing similar commercially useful advances were treated differently because one worked in a department with massive external research support and extensive mechanical equipment and facilities, while the other belonged to a department whose activities required no research funds and whose facilities consisted simply of books and the collective knowledge of the University community. Similarly, if vagaries in the current patent law allowed one of the two similar discoveries to be covered by a patent and another not, but both retained great financial potential, it would be inequitable if our policy treated one of the two inventors less favorably than the other. Opportunities for commercial gain also vary, because schools and departments provide differing levels of funding, facilities, and technical support.

One solution to potential inequities may be to state at the outset that an overriding principle of the new policy is to promote equity: **The new policy should apply equitably to all University personnel, whether or not particular research results are patentable, and regardless of the specific characteristics of a given discipline or the level of funding, facilities, and technical support available for the creative effort. However, the committee felt that the new policy should continue the present exemption of scholarly texts and articles from the rules normally governing proprietary interests in research results.**

C. Mutual Trust and Goodwill.

The Policy on Technology and Literary and Artistic Works must function within a diverse university community and it should ensure that the creators of research property, their faculty colleagues, and the administration can all benefit from the transfer of technology from within that same community. It is difficult if not impossible to devise a technology policy that would cover all possible scenarios likely to arise in our environment without stifling the cherished freedom of intellectual exploration and education. Hence the policy must remain flexible and subject to interpretation on a case-by-case basis. To prevent anyone from interpreting the flexibility inherent in such a policy as a weakness or from assuming an adversarial relationship, the Patent Committee recommends that **throughout all phases of the creation and implementation of the policy, it will be assumed that all members of the Vanderbilt community will be guided by a sense of mutual trust and goodwill. In the event of future controversies regarding the ownership or commercialization of particular research property or the interpretation of the policy, all parties should recognize that mutual trust and goodwill were fundamental tenets in the creation of this policy.**

D. Fair Play.

Because it is impossible to devise a policy that covers every situation, and in view of both the rapid expansion of commercially useful research and our inability to predict what new media will become available for the creation and expression of information, any policy statement, no matter how carefully drafted is likely to contain or develop loopholes. Given the Principle of

Equity, however, the policy should not harbor loopholes that lead to unequal treatment. One possible route to minimize the effect of potential loopholes would be to elaborate a highly detailed and restrictive policy that contained cumbersome regulatory and legislative mechanisms. An alternative route is for **both the creators of research property and the administration to adopt and abide by a Principle of Fair Play, in accordance with which no one will be allowed either to deliberately create or exploit inadvertent loopholes in the policy to his or her own advantage. If loopholes requiring corrective action are nonetheless identified, it is incumbent upon the Technology Review Committee to recommend appropriate measures to the Chancellor.**

Under this rule, any activity designed to bypass the existing regulations, i.e. to exploit a loophole, would be deemed unfair play and would violate the spirit of the policy. For example, the creation of a shadow company mainly to exploit the consulting rules in order to bypass the Policy on Technology and Literary and Artistic Works would be deemed improper. The Principle of Fair Play, coupled with the Principle of Transparency discussed below, would encourage investigators and administrators alike to point out questions regarding the Policy or its implementation as soon as they arose so that ambiguities could be addressed and remedied by the appropriate University committees or administrators.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

In addition, it is intended that application of this Policy will take into consideration principles of open and full disclosure, overall equity, fairness to the Inventor or Creator and the University, the need for understanding and goodwill among the parties who have an interest in Technology or Literary and Artistic Works, and reasonableness in the negotiation of licensing agreements.

E. Faculty Governance and Review.

In our University environment, productive research is seldom the result of a single investigator working in isolation. More often than not, the creative effort represents a synthesis that utilizes the diverse inputs of faculty, colleagues, guests, and the fruits of both prior and ongoing research and creative efforts. The faculty as a whole is the true reservoir of creative effort from which all of us draw. The Committee considers it a given that the faculty must have a strong voice in the establishment and implementation of the Policy on Technology and Literary and Artistic Works that will regulate the fruits of its creativity. We discuss elsewhere in this report how the Patent Committee, to be renamed the Technology Review Committee, can provide a mechanism of peer review that would allow investigators to resolve disagreements among themselves or with the administration. With this in mind, the Patent Committee recommends that **the University faculty through the Technology Review Committee should play a preeminent role in the establishment and periodic revision of the Policy on Technology and Literary and Artistic Works, and in the review and arbitration of disputes arising under it.**

Under the present practices and regulations, the Patent Committee is composed of nine faculty and eight ex officio members. **All members except for those from the General Counsel's Office will have one vote.** Consistent with the Principle of Mutual Trust and Goodwill, it is important that this mix of faculty and administration be maintained. However,

to ensure that future committees enjoy the collegiality of past committees, and to provide a sense of surety for the future peer-review role of the Committee, the Patent Committee formally recommends **that the Technology Review Committee should have a majority of members who are faculty members without administrative appointments, and the Committee should continue to be chaired by a faculty member.**

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

A Technology Review Committee shall be appointed by the Chancellor with nominations for faculty positions being made by the Consultative Committee of the Faculty Senate. The Technology Review Committee ("Committee") shall be chaired by a faculty member and the majority of members will be faculty members without administrative appointments. The Committee shall review and monitor the activities of the Office of Technology Transfer on matters relating to the administration of this Policy. The Committee shall be consulted in advance concerning any material changes to the Policy and shall participate fully in the future development of the Policy. In addition, the Committee shall approve recommended allocations between the Technology Promotion Fund and the Technology Research Fund.

The Committee serves as an appellate body advisory to the Chancellor in the event a disagreement occurs between Inventors or Creators or between Inventors or Creators and the University concerning the interpretation or application of this Policy. In cases in which the Committee is unable to resolve the disagreement between the parties, the Committee will forward its recommendation for a resolution to the Chancellor for final decision.

F. Transparency.

The present Policy states:

All discoveries or inventions made using University facilities or with support from funds administered by the University shall be disclosed to the Office of University Relations and General Counsel. Disclosure of inventions or discoveries made without using University facilities or without such funds is voluntary on the part of the inventor.

The Patent Policy also indicates that where there is an uncertainty, the inventor or inventors shall disclose to the University the conditions of the research:

When a discovery or invention is made by an individual associated with the University under circumstances not described by this policy, the inventor or inventors shall disclose to the University the particular conditions of the research. The University and the inventor or inventors shall make agreements for the individual situation not inconsistent with the general principles of this policy. In the event that the parties do not reach an agreement, the dispute shall be referred to arbitration which follows the rules of the American Arbitration Association.

Chapter 3 of the Faculty Manual "Policy Guidelines for Sponsored Research" also contains text regarding disclosure of special relationships:

> Researchers are obligated to inform their department chairs, deans, and the appropriate Director of Sponsored Research in writing in advance of project sponsorship of any special relationship that they have or intend to have with a sponsor. This disclosure should detail fully the nature and purpose of the relationship but normally need not provide specific financial reimbursement figures except when necessary to determine the existence of conflicts of interest, allocation of effort, or other University need defined by the Provost or Vice-Chancellor for Health Affairs, as appropriate. This provision applies to all participants in a project, including faculty, research associates, staff and students. It is expected that sponsors may inquire whether a researcher is receiving support from a competitor and whether safeguards are in place to protect proprietary information from being misused. To avoid conflicts of interest, researchers should be especially cautious when accepting support from competitor sponsors who are providing proprietary information.

One difficulty with the present policy lies with the voluntary disclosure of inventions or discoveries made without using University funds or facilities. For example, some faculty members persist in claiming that their inventions or discoveries were made in the kitchen or on the golf course and not on the Vanderbilt premises, even if these inventions were directly related to their area of University research and technical expertise for which they were engaged. Other faculty members have chosen to interpret the present policy literally and do disclose all their inventions to the University, but with clear indication that in their view the University has no rights when the act of invention occurs off campus. In contrast, other inventors follow the spirit of the Patent Policy by disclosing and transferring to the University all inventions or creations related to their University research, regardless of whether they were conceived on or off the premises. In still other cases, some faculty members have chosen to benefit from the commercialization of research findings that do not qualify for patent protection, without involving the University in any way. The absence of a requirement to disclose involvement, beyond consulting, with commercial ventures related to the Faculty member's research activities may also lead to abuses. While some faculty properly use consulting agreements to broaden and support their university research, others are tempted to use consulting as an umbrella to cover activities that may stretch the bounds of propriety and the existing guidelines covering conflicts of interest.

Obviously, the commercialization of an ever-broadening technology base is the source of potential abuse and conflict of interest. The inequity of this present policy is that a small fraction of the faculty can too easily abuse an ill-defined set of regulations, while the majority feel obligated to support the endeavors of the University community as a whole. One solution, addressed later in this report, is to have a better defined policy. It is nonetheless of fundamental importance to establish a policy of transparency, under which clearly defined exceptions to the norm are expected to be documented in advance. Such a principle, in use at Duke University, should inculcate a sense of openness and trust, without constraining well-intentioned faculty from either conducting independent research or from consulting, or from commercializing any of their work. We therefore recommend that **should a faculty member wish to pursue consulting, commercial activities, or independent research separate from his or her University obligations, and if such activities entail the direct or indirect use of University funds or**

facilities, or if they are likely to fall within the scope of the faculty member's employment[4], then he or she must report these plans in writing to the appropriate Chair and Dean. If the faculty member foresees no conflict of interest issues, this notification need include only an identification of the company with whom the consulting or other activities are to be conducted, the subject area of the activities, the expected level of effort, and an affirmative declaration that no conflicts of interest exist. This reporting requirement is only a modest extension of existing procedure.

Furthermore, if a faculty member foresees or should reasonably foresee that consulting or other outside activities will lead to either a potential conflict of interest or an overlap in proprietary claims affecting the University, the faculty member, or the pertinent outside organization or activity, it should be incumbent on the faculty member to inform the Chair and the Dean in advance of these perceived problems and to seek a satisfactory resolution. Should such problems or conflicts arise in the course of these activities, the faculty member should immediately apprise the Chair and Dean, and seek resolution. This clause would pertain not only to consulting but also to direct participation by the investigator in the commercialization of University research. By making formal disclosure at the outset of such a venture, the investigator would effectively be saying that "What I am embarking on is consistent with the spirit and letter of the Vanderbilt Policy on Technology and Literary and Artistic Works." This in time should reduce the possibility of activities that were either contrary to policy or later perceived as being so.

Obviously, it is impossible to disclose an activity before it is conceived. Based upon the Principle of Mutual Trust and Goodwill, **it is expected that disclosures of external activities and actual or potential conflicts of interest will be made as soon as it becomes apparent or should become apparent that the activity would require notification under the Principles of Transparency and Fair Play.** Consistent with the Principle of Fair Play, prior reporting is essential and presumes that no specific invention, discovery, new technology, or innovation has been identified as the target of these separate pursuits. By the same token, it would be improper to conceive of an idea during research at Vanderbilt and subsequently claim this idea as the product of independent outside research or consulting.

We reiterate that external commercial activities are subject to potential abuses of the University's Conflict of Interest Policy, while recognizing that, if conducted properly, the whole University can benefit from them. The Principle of Transparency, by requiring that these activities be disclosed in advance, should suggest to faculty members that it would be prudent to consider potential conflicts of interest well before they occur. If none are likely to arise, and if the activities are consistent with the governing principles set out in this report, the faculty member should have no reason not to disclose them. If a potential conflict of interest did exist and the faculty member failed to disclose it, upon subsequent discovery the faculty member's integrity would be compromised and his or her burden of responsibility would be evident. The Principle of Transparency should thus promote both disclosure and avoidance of even the <u>appearance</u> of a conflict of interest.

---

[4]The concept of scope of employment is discussed in detail in Section IV.A. of this report.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

For exceptions (1) and (2) above [i.e. consulting and independent research], it is the responsibility of the faculty member to disclose and resolve in advance with the Dean and Chair any potential conflict of interest or overlap in claims of ownership of Technology. If no potential conflict of interest or overlap in claims to Technology is, or reasonably should be, apparent the faculty member need only include in the disclosure the name of the company, if any, for whom the work is being done, the subject area of the work, the expected level of effort, and a statement that no potential conflict or overlap exists in claims of ownership of Technology. In order to maintain a spirit of collegiality, Inventors or Creators have the responsibility for full and open disclosure to the Dean and Chair concerning all matters relating to the commercialization of Technology in which the University has an interest. In the Medical Center, such disclosures must be copied to the appropriate officer in the Office of the Vice Chancellor for Health Affairs.

EXAMPLE:

Hypothetical: A University science professor realizes that a certain software program used with a miniature computerized bowling alley device will demonstrate some laws of physics that are difficult to explain. The device could be used as an educational tool as well as by businesses to solve an important calculation during the manufacturing process. The professor and her daughter write the program and design the device at home during summer vacation. No University research funds are used and the project is not related to the professor's ongoing University research, although it is in her field of study and could comprise a University research project.

Comment - Proposed Policy: No University resources were used, but the research conceivably could be within the professor's scope of employment. The faculty member has a choice at the outset of the project: either inform her chair that she will be conducting this research as an independent research project and at that time resolve any potential conflicts of interest or overlapping claims of ownership, or alternative, have this work be treated as any other university-associated research. If she followed the Policy procedures and disclosed the project appropriately as independent research, the rights to the invention are hers, along with all income (and all responsibility for licensing expenses and administration). In that case, she has the choice of offering it to the University for ownership, licensing, and royalty distribution according to the formula, but is under no obligation to make such an offer. However, if the project were not appropriately disclosed and were found to be within the professor's scope of employment, the University may justifiably claim all rights to the invention because the independent research activities were not previously disclosed. If instead, she treated the project as a normal university research activity, the invention would be handled as technology in the standard manner outlined in this policy.

Existing Policy: This project falls within the area of the existing Policy that is unclear. If the invention is seen primarily as software, the University reserves its rights of ownership, but those rights concerning software created under the circumstances of this hypothetical are undefined in the existing Policy. If the invention is seen as more than software, the fact that no University funds or facilities were used puts it into the gray area described in the hypothetical

concerning the gene translation discovery discussed below. In practice under the existing Policy, if disclosed, most likely the University would claim no ownership.

These results would not change even if the faculty member were on a nine-month salary schedule. Research within her scope of employment should be disclosed in advance in accordance with the Proposed Policy to be independent research. That she is not working for the University during the summer months would make approval more likely. However, a faculty member may not conduct University research for nine months and perform directly related research during the summer for another entity without going through the appropriate disclosure process.

EXAMPLE:

Hypothetical: A Vanderbilt engineering professor is working on a federally funded research project concerning the use of robots in manufacturing. In addition, the professor is requested by an outside company to enter into a consulting arrangement concerning an ongoing project of the company with substantially identical short-term objectives. The consulting agreement gives ownership to the company of any inventions made by the professor pursuant to the consulting agreement.

Comment - Proposed Policy: Under the Policy, as well as the general principles regarding conflicts of interest, the professor must disclose the consulting arrangement in advance. Because of the direct overlap of the specific objectives for the University and industrial projects, the professor could be in violation of the Policy if he attempted to transfer ownership of any inventions that in fact came from ongoing University research. The professor could be liable to the company for misrepresentation and to the University for harm to its rights and for conflict of interest. It appears that this consulting agreement would be in direct conflict with the professor's ongoing, Federally-funded research and thus would be inappropriate unless the provision concerning ownership of technology were removed from the consulting agreement or defined in such a way to remove any conflicts, or the rights accorded to Vanderbilt and the Federal government were licensed by the company.

Existing Policy: The existing Policy does not address this situation directly, but the Conflicts of Interest Policy requires disclosure and resolution of potential conflicts. Under the existing Policy, if any resulting invention were related to the ongoing University research using University facilities, ownership would remain with Vanderbilt and the professor would have no right or authority to transfer any ownership rights to the outside company. The Proposed Policy simply states these principles more clearly than the existing Policy.

G. Reasonableness in Licensing.

The Committee recognized that the General Counsel's Office has already demonstrated a policy of cooperation and reasonableness in setting licensing terms for inventions that faculty and staff choose to commercialize on their own. A modest actual return on a successful venture is obviously better than the promise of a large return from a venture that ends up producing no income. The Committee felt that inventors and creators should be further encouraged to commercialize, or help to commercialize the results of University research, which in turn should stimulate the transfer of technology from the research laboratory to society. **Hence, the**

University should formally endorse the Principle of Reasonableness in Licensing, in which the inventor or creator will normally play an active role in the entire licensing process, would ideally approve of licensing decisions, and at the very least should be consulted prior to licensing decisions. It is expected that in most cases, licensing agreements will be made with third parties in which the inventor or creator does not have a financial interest. However, in those cases for which the inventors and creators express an interest in participating in the commercialization of their own inventions or creations, they will be given first consideration. If the inventor or creator has an interest in a potential licensee, the inventor or creator should be able to specify that that licensee will receive the right of the first negotiation. Such participation by the inventor/creator must necessarily be limited by and need to be consistent with the University Policy on Conflicts of Interest and any other applicable policies of the appropriate school or department. Inventors/creators can appeal licensing decisions to the Technology Review Committee.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

The Inventor or Creator will cooperate with the Office of Technology Transfer in its protection of University interests in disclosed Technology including executing appropriate assignments to perfect legal rights. It is anticipated that the Inventor or Creator will be an active participant in the licensing process and will be consulted prior to licensing decisions.

Inventors or Creators having an interest in a potential licensee may request that the potential licensee be given the right of first negotiation, consistent with University policy on conflicts of interest and any other applicable School or departmental policies, and normally that request will be granted.

If the Office of Technology Transfer, in coordination with the Provost or Vice Chancellor for Health Affairs, determines not to file for a patent or actively pursue the transfer of particular Technology, the University will at the Inventor's or Creator's request assign ownership of the Technology to the Inventor consistent with any existing governmental rights. These decisions normally will be made within one year of the date of disclosure.

V. CRITERIA FOR DETERMINING THE UNIVERSITY'S INTEREST

The Governing Principles provide us with useful criteria for determining the University's interest in the commercialization of scholarly activity. There are two substantively different approaches to this problem: one focuses on the use of University funds and facilities and the other emphasizes the scope of a faculty member's employment. A third approach combines the two. The existing policy states that:

A. Patentable inventions and discoveries often result from research performed under the auspices of Vanderbilt University or through the use of its facilities.

The University recognizes the rights of the inventors, the public, the sponsor if one is involved, and the University itself.

B. All individuals associated with the University, in consideration of the benefits of that association and of their privileges of using funds administered and facilities controlled by it, shall agree to handle all inventions and discoveries during such association in accordance with the terms of this policy. For the purposes of this policy, the term "individuals associated with the University" shall include all faculty, staff, and other persons receiving compensation from the University for services rendered, as well as students, graduate students, and others, whether compensated or not, who work on any project under University control.

Vanderbilt's current Patent Policy thus provides that all discoveries made with the use of University facilities or with support from funds administered by the University shall be disclosed and shall belong to the University, but that disclosure of inventions made without using University facilities or without such funds is voluntary. Disclosure of all inventions, whether made with university resources or not, is required by some universities, such as Harvard, but not by others, such as Johns Hopkins and Stanford. Tulane University has adopted a policy requiring disclosures of all inventions and ascribing university ownership to any invention made by a researcher within the field of his or her employment. Duke has addressed the problem by requiring disclosure of all inventions and by providing that, when an invention is within the specific subject area of an inventor's current university research, the inventor must provide his department chair with advance notice that he is engaging in independent research activities, describe the focus of these independent research activities, and copy the Provost or Chancellor for Health Affairs in order to claim ownership of any invention within the same subject area as his university research.

At Vanderbilt, disagreements have occurred concerning inventions that pertain to an inventor's field of University research, but which the inventor claimed were conceived off-campus. On one hand, the use of University facilities and support in conducting his or her research, as well as the give-and-take with University colleagues, enable a researcher to create the fertile ground that leads to an invention or discovery in an inventor's field of research. One might then wonder whether a distinction should be made as to whether the invention occurred in the researcher's backyard rather than in his or her laboratory. On the other hand, it can be argued that the specific circumstances surrounding a discovery determine the rights to the invention and, if the moment of discovery occurs without the use of University facilities or funds, the invention is not a University invention. Indeed, everyone agrees that a researcher should have all rights to any invention created without the use of University funds or facilities that is also unrelated to his or her field of employment.

When this issue is examined in light of University goals and missions and of the Governing Principles set out in this report, it seems desirable to establish a uniform and equitable policy applicable to all relevant situations. To distinguish between inventions and creations falling within a researcher's field of research that were conceived off-campus and those that were conceived on-campus seems arbitrary and unfair, particularly since salaried faculty are without fixed working hours and can often work at home as easily as on campus. Some might be tempted to arrange for their most fertile thoughts or work to be completed in their home offices rather than at University facilities, even though such actions penalized other researchers who attributed their ideas appropriately to their University research.

It is important to recognize that inventors, innovators, and creators will all receive a direct share of royalties paid to the University, and that income from University inventions and creations is returned to the University to support further research. This income does not simply disappear into the general University budget. Thus to allow researchers to appropriate arbitrarily that income to which the University community as a whole has some claim would penalize other researchers and undermine the research mission of the University. In addition, the cases that have so far arisen at Vanderbilt do not represent claims stemming from independent, formal programs of off-campus research, but situations in which a faculty member simply presents a self-serving statement to the effect that the researcher was "working at home" or off the premises elsewhere when the invention was conceived or the software created.

Related to the issue of inventions conceived off-campus is the issue of research conducted under a consulting agreement or other third-party contract that is not a sponsored research agreement administered through the University. Current policy states that:

> Any employee activities using University facilities financed wholly or partially by third parties and not administered through the University shall be conducted pursuant to a contractual agreement approved by the University stating the rights and ownerships of patents that may result.

The policy does not specifically address consulting agreements under which work is performed without using University facilities. The Guidelines for Sponsored Research in the Faculty Manual provide that researchers are obligated to inform their department chairs, deans and the appropriate Director of Sponsored Research in writing in advance of project sponsorship of any special relationship that they have or intend to have with a sponsor. This statement would cover consulting with an existing University sponsor, but does not address a consulting agreement with an entity that is not a separate research sponsor. Consulting is also addressed generically in the Faculty Manual in the section concerning conflicts of interest.

The University historically has left it to the faculty member to disclose any potential conflicts of interest. The issue arises in research consulting whether inventions conceived during consulting activities and without the use of University facilities are sufficiently related to or inspired by University research to warrant University ownership rather than ownership by the outside entity that sponsors the consulting. Because researchers often consult in the same field in which they conduct University research, it could create confusion and inconsistency to leave this determination unspecified within the Policy.

With this background, we can now discuss specific criteria for establishing the University's rights.

A. Funds and Facilities versus Scope of Employment.

One of the most difficult issues confronting the committee was whether a "Scope of Employment" test or a "Use of University Funds and Facilities" test should be used to determine the University's interest in the commercialization of research property. Under the latter test, a determination of the University's interest would be made solely upon the basis of whether a creation was conceived while the creator was using Vanderbilt facilities or while conducting research supported by Vanderbilt-administered funds. With the expansion of commercializable

research property, however, such a definition has become inadequate. Ideas can be reduced to commercially-valuable products with little more than an inexpensive microcomputer. While an idea may be conceived of in the kitchen or on the golf course, such an idea may well have germinated because of the fertile intellectual environment provided by the University community.

The alternative approach, termed Scope of Employment, seeks to determine whether an invention or discovery is sufficiently related to a faculty-member's established role and obligations within the University. In the legal literature, work within the Scope of Employment derives from the law of Agency and it has been defined as work produced pursuant to the creator's duties as an employee. The definition of duties and the reach of Scope of Employment vary with the circumstances and the employment context and are difficult to define precisely. Because, in academia, a faculty member's "duties" include exploring, learning, and creating and communicating knowledge, the concept of Scope of Employment is more amorphous than for many disciplines.

The Committee agreed that **for purposes of determining the Scope of Employment in any dispute concerning the ownership of proprietary rights in a given faculty member's commercially exploitable work product, factors to be given considerable weight would normally include the faculty member's recent teaching, research, and other activities related to the University; any activities stipulated in an employment contract; and the exercise of expertise related to activities or fields of discipline in which the faculty member habitually engages for the University.** This definition will be incorporated into the final recommendation regarding the ownership of inventions and other creations.

If utilized alone and without specific exceptions, the Scope of Employment approach runs the risk of being too restrictive and all-encompassing for our University environment. It is well recognized that were the University to claim routinely that intellectual property developed during consulting activities fell within the Scope of Employment, most firms would not allow Vanderbilt professors to consult with them. This would be a serious loss to the entire University.

Another concern raised repeatedly within the Committee was that any test or terminology ultimately adopted should be legally robust. Because of the rapidly evolving laws covering intellectual property, the present Funds and Facilities definition has been described as a potential "litigation factory." Scope of Employment, although vague at its outer edges, is a well established legal term that courts of law are accustomed to interpret. The term "Funds or Facilities," while apparently clear in the abstract, yields skewed results in the modern information age, because "facilities" arguably include the collective intelligence of the University faculty as well as other intangible resources. In practice, courts are likely to use Scope of Employment analysis in settling disputes about what constitutes University facilities even if other formulas appear in the Faculty Manual! Whatever flaws or limitations may be inherent in the definition of Scope of Employment, courts are familiar with the concept and are able to deal with its ambiguities in fairly predictable ways. To use terms that have not been tested legally or are already suspect could well be a disservice to those faculty that follow us. Again, protection of the faculty is provided by the tenets of Mutual Trust and Goodwill, and Fair Play, and by exceptions that will allow consulting and independent research. Moreover additional protection is provided by the appeals process to the Technology Review Committee and by mandated reviews of the Policy.

The governing principles of Equity, Fair Play, Mutual Trust and Goodwill, Transparency, and Faculty Governance and Review provide a milieu that aims to protect all from abuses of the system, independent of whether the Policy is based on Funds and Facilities or on Scope of Employment. For instance, the Technology Review Committee acting as a faculty review-appeal board would be able to apply critical peer pressure to an inventor who just happens to conceive all of his or her commercially-valuable ideas on a golf course. At the other extreme, the proposed policy would protect a faculty member from an overzealous administrator.

Rather than choosing between these criteria, with the risk that gaps might be left in the purview of the policy, the better approach seems that of combining both tests in the interest of equity and fair play. Departments that traditionally work with conventional inventions of tangible devices would almost always fall within the Funds and Facilities test. For other departments in which the traditional connection between creative activity and physical research facilities is less compelling, the presumption nevertheless is that most cases would be covered by the Funds and Facilities test. The Scope of Employment criterion would be useful when physical facilities and funds are not used but the work is clearly tied to Vanderbilt activities and resources. In all cases, disputes over the application of either clause would be subject to appeal to the Technology Review Committee. The advantage of the combined approach is that by including Funds and Facilities, the policy is consistent with past custom and practice; the Scope of Employment criterion is available to clarify the uncertain cases we have already discussed. **The Committee therefore agrees that the University's proprietary rights include inventions, discoveries, innovations and new technologies that are created with the use of University Funds or Facilities. The Committee further agrees that the University may have proprietary rights to inventions, discoveries, innovations, and new technologies whose creation did not involve University Funds or Facilities but arose within a creator's Scope of Employment consistent with the important exceptions for consulting and independent research that are discussed below. This agreement regarding the combined Funds and Facilities and the Scope of Employment tests is a coherent part of the array of rights and duties set out in this report.**

During the discussions of the Committee, concerns were raised about consulting, independent personal research, summer research, off-campus activities such as workshops and seminars, and other intellectual pursuits that do not directly involve University funds and facilities. Whether the Scope of Employment test and/or the Funds and Facilities test is used, or even if the two are combined, it remains necessary to list the exceptions to the rule. The University must not risk stifling faculty creativity by trying unfairly to claim benefits from creations conceived or developed outside of the University context, nor must even the impression of this be fostered, but the University community should not be deprived of benefits resulting from our collective endeavors. The challenge is to separate those creations and activities that are free of University contributions without encouraging abuses. One possible approach to the problem of Scope of Employment versus Funds and Facilities as related to special off-campus activities is to invoke the Governing Principles that we have developed. Let us suppose that we can devise a means to identify which outside activities were in the spirit of the Governing Principles, and which were not, i.e. whether an outside activity is either "good" or "bad" when viewed in terms of the Governing Principles. "Good" activities would be consistent with the Governing Principles and the overall mission of the University; "bad" activities would represent attempts either to subvert the mission of the University or to bypass the policy that governs commercialization in our University environment.

For example, some people tend to view consulting as a two-way exchange between the consultant and the external company. It is in fact a three-way exchange. The collective knowledge and wisdom of the University is shared by the consultant with the company, and in many cases the consultant brings back to the University new ideas, new applications for current research, and new sources of funding. It is incorrect to view consulting as a drain on University resources. It is in fact a major intellectual and financial resource that needs to be nurtured for the good of the University. However, consulting can be abused. In "good consulting", a faculty member would take his or her expertise and knowledge, but no existing inventions or tangible research results, to an outside firm to help them solve their problems. In return, the consultant would receive compensation for his or her time, but more importantly would acquire new knowledge that should benefit future research. It is in this light that good consulting provides the University with a valuable source of new technological information, and also provides a useful means to disseminate knowledge. In contrast, a case of "bad consulting" would arise when an investigator delivered patentable or tangible existing research results (or work that overlapped the researcher's University research) to a company in return for personal compensation, rather than having the company proceed through the standard technology licensing procedures so that all could benefit from commercialization. This investigator would be seeking personal enrichment to the detriment of colleagues and the University community as a whole, which would not be fair play. Such activities could be in violation of the Conflict of Interest policy, and they may be illegal.

A similar problem can exist with independent research that does not utilize University funds or facilities. To illustrate, consider three faculty members with very different research prospects. One has active sponsored research on-campus and an active consulting program off-campus. The second has active sponsored research programs but no consulting. The third has no external or internal research funds, and as a result, has been either deprived of laboratory facilities or assigned a heavy teaching load that reduces on-campus research. The third faculty member might in fact use personal funds to conduct independent research at home. Under present policy, the independent research activity need not be disclosed in advance, but consulting would have to be disclosed. The first faculty member will receive supplemental income directly from consulting. Both the first and second faculty members might eventually transfer their technology through commercial licensing and thereby receive income through the distribution procedures in the Policy on Technology and Literary and Artistic Works. However, inequities might arise when and if the third faculty member proceeds to commercialize his or her creation. Under the present Patent Policy, the third faculty member could state that the invention was the product of independent research and thus Vanderbilt would have no rights. However, if we adopt a broad Scope of Employment test in the new Policy, and the research activities at home are seen to fall within the Scope of Employment, then the University could claim rights to something for which it had provided negligible or even negative support. Had the same faculty member consulted with an external company instead, the intellectual property created during this consulting activity might not be subject to University claims. Thus, the third faculty member might be tempted to form a shadow company to "consult" with, so that his or her activities would be excluded from the Policy through a consulting exemption. However, such an act would violate the principle of Fair Play. Yet, any rules that would require individuals conducting truly independent research to share their riches with the University would fly in the face of the Principle of Equity. The solution to this dilemma may in fact be to recognize that "good independent research" conducted under the Principle of Transparency would not involve the transfer of any tangible research property from the University to the individual project,

whereas "bad independent research" would be an attempt to use independent research to circumvent the Policy on Technology and Literary and Artistic Works. The concept of excluding "good" independent outside research from claims by Vanderbilt is consistent with the definitions already existing in Chapter 3 of the Faculty Manual, "Policy Guidelines for Sponsored Research":

> University research is defined as any research activity using University facilities or with support from funds administered by the University.
>
> Excluded from the definition of University research is personal research not supported from funds administered by the University and that does not use, or makes only nominal use of, University facilities, and that does not interfere in any way with University responsibilities.

Similar principles apply to certain summer research. Some investigators do not receive summer salaries from either Vanderbilt or through Vanderbilt-administered research funds. These faculty may work at other institutions, research labs, or companies during the summer to provide additional income. In this context, "good summer research" would not involve the transfer of tangible research property from the University to the sponsor of the summer work program without advanced negotiation of licensing and royalty terms and good-faith transparency declarations.

One could imagine a whole spectrum of other activities that might raise borderline questions. Some faculty members conduct off-campus workshops and seminars for pay. Such activities would be good if they do not involve the transfer of tangible research property, but merely the dissemination of intangible knowledge; they would be bad if they represented back-door commercialization of matter falling within the scope of the Policy on Technology and Literary and Artistic Works, or if they exploited the University's name without authorization.

One of the advantages of a Scope of Employment test is that it provides the faculty member with a stable legal guideline by which to judge outside activities. An engineer who is paid to referee at a daughter's basketball game can easily view this outside activity as "beyond the scope of employment" and hence need not be reported to the Chair and the Dean. Similarly, the discovery of a new mushroom with medicinal value would not necessarily fall within scope of employment for a mechanical engineer, although it might in the case of a biologist. The Principles of Transparency, and Mutual Trust and Goodwill, and Fair Play provide a framework for such a system to work effectively, and the mechanism of Faculty Governance and Review provides peer-pressure to minimize abuses.

Our definition of good versus bad hinges on the differentiation of existing, patentable research or tangible embodiments of commercially-valuable research results as distinct from general knowledge and expertise. Institutional culture, knowledge, and expertise are all potentially valuable, yet they are sufficiently amorphous and non-directed that neither their existence nor their ownership could be readily quantified, nor specific results or products identified, unless specifically patentable creations have arisen. The principle of Academic Freedom might even preclude any claims of ownership by the University. It would be foolish and could violate the basic principles of Academic Freedom to give the University rights to intangible and unpatentable knowledge and expertise residing solely in the mind of the

investigator. After such ideas are reduced to patentable inventions or specific tangible results, the situation becomes quite different. Years later, after an investigator had left the University, he or she and a group of peers could review prior research results and compare them with more-recent research results and provide a quantitative measure of the relative importance of the various efforts. This is how the Patent Office and the courts resolve disputes regarding priority in inventions. There is of course a possibility that an investigator might conceive of a brilliant idea, such as a cure for cancer, and immediately leave the University before converting it into a specific research project or research result. This would be inconsistent with the concept of "independent research," which demands advance disclosure (transparency) of the intent to work separately. Brilliant insights are stimulated and nurtured by the academic milieu and belong to the University community, even if conceived at home. Yet, we know of no way to prevent unwarranted claims of independent creativity at home; the Governing Principles simply discourage it, since peer pressure is a very powerful influence within any university. Again, the overriding theme is that an investigator is entitled to the contents of his or her brain, but once these ideas have been reduced to a tangible result or discovery that is either within the inventor's scope of employment or was obtained through the use of University funds or facilities, the University may have an interest in them were they to be commercialized.

Based upon all of the foregoing considerations, the Committee recommends the following: **Should an investigator choose to protect his or her rights to any invention, discovery, innovation or new technologies lying within the Scope of Employment, whether or not made using Vanderbilt funds and facilities, the investigator shall disclose this work to the University. For purposes of determining the Scope of Employment in any dispute concerning the ownership of proprietary rights in a given faculty member's commercially exploitable work product, factors to be given considerable weight would normally include the faculty member's recent teaching, research, and other activities related to the University; any activities in an employment contract; and the exercise of expertise related to activities or fields of discipline in which the faculty member habitually engages for the University. As governed by the principles of Academic Freedom and the Preeminence of Scholarly Activities, scholarly disclosure of the results remains at the discretion of the investigator, irrespective of their commercial possibilities. Both a Funds and Facilities test and a Scope of Employment test should determine the commercial rights of the University. The University may have rights to research property generated within the Scope of Employment unless this property was conceived and reduced to practice during a) previously-disclosed consulting activities, b) previously-disclosed independent personal research, c) previously-disclosed summer research elsewhere, or d) other previously-disclosed off-campus activities. Any activities such as consulting, independent personal research, summer research, and other off-campus activities that lie outside of the Scope of Employment need not be disclosed. If an investigator is uncertain whether his or her activities fall within the Scope of Employment and desires clarification in advance, he or she would be free to disclose the necessary information to his Department Chair and Dean and request a determination. If the Chair's or Dean's response proved unsatisfactory, the investigator could appeal to the Technology Review Committee.**

1. Work for Hire and Employee Inventions. It is important to recognize that **the above considerations do not ordinarily apply to "work made for hire" or "employee inventions," in research projects in connection with which an employee is hired to perform specific tasks.** If a University employee (faculty, staff, or student) is assigned a specific task as part of

his or her job duties that results in the creation of research property or a commercially valuable product, the University would retain full ownership and the creator, author, or inventor would retain no rights to ownership or the receipt of royalties or other income beyond his or her normal compensation. For example, if a staff member in the course of performing duties as an insurance benefits coordinator is instructed to draft a new form for use in performing those duties or is otherwise expected to draft such forms, the form is a work made for hire and the copyright to the form belongs to the University and the staff member would receive no additional income. If an employee is given the duty to design software for the improvement of call collection in the Telecommunications Department, the University owns all rights to the software and the employee receives no additional income for its creation. If a faculty member is hired specifically to design and direct a program for the rehabilitation of persons with spinal injuries, any rights to the program documents, processes developed, or software written would belong to the University and the faculty member would receive no additional income. The Committee recognizes that **works-for-hire or employee inventions do not include discoveries, innovations or inventions made or created by faculty, staff, or students in the conduct of research, where the results, although perhaps anticipated, are not directly or indirectly dictated or assigned. In the event of disagreement concerning either the interpretation of this provision or the scope of employment agreement, the employee could appeal to the Technology Review Committee.**

2. Students. In the non-technical disciplines, a typical undergraduate or graduate student pays tuition in exchange for receiving an education. In doing so, the student should agree to become subject to the rules and regulations of Vanderbilt University, including the Policy on Technology and Literary and Artistic Works. In technical disciplines, students often receive salary and/or tuition through University-administered research funds. These students are clearly covered by the Policy. The situation becomes murky when an external corporation pays the tuition and salary of one of its employees studying at Vanderbilt. While this student is still governed by the Vanderbilt rules and regulations, the student may also be governed by the intellectual property regulations of the sponsoring employer. In the event that a commercially-sponsored student is involved in an invention or discovery, or the development of a new technology on campus, it is quite likely that the sponsoring company may claim certain rights. To assume that the student would be required to sign away all of his or her rights to any intellectual property conceived at the University might well preclude Vanderbilt from ever receiving commercially-sponsored students. Such a restrictive view is not consistent with the principle of Reasonableness in Licensing, and hence an alternative solution should be found. It is not as if students have no rights to intellectual property. If in the course of a research project, a student makes a significant independent contribution to a particular research property over and above his or her assigned duties, that student may have specific rights in the subsequent commercialization of this research as a co-inventor, joint author or individual author. Our Committee can neither anticipate the specifics of particular cases nor devise a single set of rules to govern all of these circumstances. We conclude that **the Governing Principles, in particular Equity and Fair Play, also apply to students involved with faculty in research.**

Faculty members do have responsibilities to students. **Hence it is incumbent that a faculty member and the department inform all students involved in the development of research property about rules and regulations governing the protection and transfer of other research properties. In addition, faculty members are strongly encouraged to negotiate in advance the terms governing intellectual property of students who are**

simultaneously under the employment of external companies. Moreover, faculty members needing to fall back upon trade secret laws in addition to patent and copyright protection, as often occurs in regard to computer programs, must determine when and how to place their collaborators and assistants under a legal burden of nondisclosure in order to safeguard the interests of all concerned. Finally, the Principles of Transparency would require the faculty member to inform his or her Dean or Chair if there exists a potential conflict between University interests and those of the outside firm that is employing students covered by this policy.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

All rights in Technology created by Vanderbilt faculty, staff, or students with the use of University facilities or funds administered by the University are granted to the University, with income to be distributed in accordance with this Policy. The terms "Inventions, Discoveries, and Other Innovations" and "Technology" include tangible or intangible inventions, in the patent sense, whether or not reduced to practice, and tangible research results whether or not patentable or copyrightable. These research results include, for example, computer programs, integrated circuit designs, industrial designs, data bases, technical drawings, biogenic materials, and other technical creations. Faculty members working with students on research projects must inform those students in advance of the terms of this Policy and of any burdens of non-disclosure or confidentiality deemed necessary by the faculty member to protect resulting Technology.

All rights in Technology created by Vanderbilt faculty, staff, or students without the use of University facilities or funds administered by the University, but which fall within the Inventor's or Creator's scope of employment, are granted to the University, with income to be distributed in accordance with this Policy, subject to the following two (2) exceptions in which the University generally will assert no ownership rights or interests:

(1) Technology assigned to an outside entity by a faculty member under a consulting agreement that is consistent with University and School policies, including Conflicts of Interest policies, and that was disclosed in writing to the faculty member's Dean and Chair in advance of execution of the agreement by the faculty member.

(2) Technology created pursuant to independent research or other outside activity that is consistent with University and School policies, including Conflict of Interest policies, and that was disclosed in writing to the faculty member's Dean and Chair at the beginning phase of this research or activity. Acknowledgement in writing is to be obtained from the faculty member's Dean and Chair.

For purposes of this Policy, factors considered in determining the scope of a faculty member's employment normally would include the relationship of the Technology to that faculty member's recent teaching, research, and other University activities, as well as activities stipulated in any appointment contract. Disagreements concerning

ownership and other matters regarding this Policy can be appealed to the Technology Transfer Committee in accordance with Section III.B. of this Policy.

. . .

This Policy does not apply to works-for-hire or employee inventions that are created as a specific requirement of University employment or as an assigned University duty. All rights in these works are owned by the University with no right or interest vesting in the Inventor or Creator.

. . .

Technology created by Vanderbilt faculty, staff, or students with the use of University facilities or funds administered by the University, or within the Inventor's or Creator's scope of employment, shall be disclosed in writing to the Office of Technology Transfer and sent to the Provost or Vice Chancellor for Health Affairs. These disclosures will be maintained in strict confidence.

EXAMPLE:

Hypothetical: An English professor is also a computer whiz and she designs a computer program to aid her in her research. The program enables rapid transcription of medieval handwritings. A commercial company hears of the software and wants to commercialize it. Potential royalties are estimated at $15,000. The software was written at the professor's home without using University funds or facilities.

Comment - Proposed Policy: Software is treated under the provisions of the Policy applying to technology. Because no funds or facilities of the University were used, and because writing software programs is not within an English professor's scope of employment, rights in the software and all royalties would belong to the professor.

The result would be different (1) if the professor were given a summer research grant for the express purpose of writing the software, (2) if the work were done at the University Computer Center, or (3) if the professor were asked to write the software for the University library in return for a reduction in her assigned duties, such as a reduced course load for a semester. In each of those cases, all rights in the software would belong to the University. In the first and second cases, the use of University resources would give the University ownership rights, and royalties would be distributed according to the formula reflected in the Policy. In the third case, the software would be a work-for-hire and the professor would receive no income.

Existing Policy: Under the existing policy, the University reserves it rights to software, and income would be distributed according to the patent policy formula. There is no provision in the existing Policy that treats software made without University funds and facilities any differently from that made with University funds and facilities. In practice, the result is usually consistent with that of the Proposed Policy.

Although the subject is not addressed by the existing Policy, works-for-hire and employee inventions are handled the same way as under the Proposed Policy, which is consistent with the law.

EXAMPLE:

Hypothetical: A biomedical engineer on the Vanderbilt faculty conceives of a new method to inhibit the translation of a gene. The idea, though in the same field as work she does at Vanderbilt with the support of the government and a private entity, did not arise out of that work. The idea is novel but the investigator realizes that the patent opportunities would be improved if she conducts an experiment in reducing the idea to practice. The experiment can be done with equipment already available in the Vanderbilt lab.

Comment - Proposed Policy: The technology created by the faculty member is within the scope of her employment (she was hired in part to do research in her field and make discoveries), thus the University owns all rights to it, and royalty distribution will be made according to the Policy formula. Neither of the two exceptions to University ownership exists: (1) the work was not pursuant to a consulting agreement and (2) the professor intends to conduct research on the idea within the University, and not through an independent research effort.

Even if the discovery were not within this faculty member's scope of employment, the use of Vanderbilt facilities in conducting the experiment would give the University ownership rights. These ownership rights, however, carry with them the responsibility for licensing expenses and administration (unless the University chooses to assign the rights to the inventor), and royalties will be distributed according to the Policy.

Existing Policy: Under the existing Policy the use of Vanderbilt funds or facilities in conducting the research would give the University ownership of the technology, with royalties to be distributed according to the existing Patent formula. The existing Policy makes no provision for the cases in which no funds or facilities are used but the research is related to a professor's ongoing work or scope of employment. The Policy provides that disclosure is voluntary. The Policy also provides that when a discovery is made under circumstances not described by the Policy, an inventor shall disclose the invention and negotiate an agreement with the University not inconsistent with the Policy. In the past, the absence of clarity in the Policy in these cases has led to disagreements between the University and inventors.

EXAMPLE:

Hypothetical: A Vanderbilt physicist and a physician are having breakfast off-campus when discussions about the physicist's research with magnets sparks an idea about how the efficacy of treatment of patients can be improved by some small variations in the approach being tested by the physicist. The physicist incorporates the idea into his ongoing research and it results in a patentable improvement.

Comment - Proposed Policy: Although the idea was sparked by discussion with others off-campus, it is impossible to separate the process that led up to the idea from the physicist's ongoing research. Thus, this case would be inappropriate for a claim that the improvement was the result of an independent research project. The rights to the invention will belong to the

University unless prior arrangements with the sponsor of the physicist's research determine otherwise. University facilities are used in reducing the idea to practice. In addition, the work clearly is within the physicist's scope of employment. Patent expenses would be borne by the University and royalties distributed according to the Policy formula.

Existing Policy: Under the existing policy, the use of University funds and facilities in reducing the idea to practice would result in University ownership and royalty distribution according to the existing Policy formula.

EXAMPLE:

Hypothetical: A history professor develops a game that will allow novices who are afraid of computers to learn how to use one. The professor writes the software, mostly at home, but makes incidental use of his office computer to demonstrate the program to colleagues and make some alterations as a result of their input. Potential income from the sale of the software is estimated at $25,000.

Comment - Proposed Policy: No Vanderbilt resources were used other than incidental use of the professor's office and personal computer and the invention is not within the professor's scope of employment, thus the University has no rights to it or any income unless the professor chooses to disclose it to the University and utilize the University processes for commercialization.

Existing Policy: As software under the existing Policy, the University reserves all rights of ownership, with royalties to be distributed according to the Policy formula. There is no definition or explanation of those rights in the existing Policy. In practice, the University usually applies principles consistent with those of the Proposed Policy.

The results of this hypothetical likely would not change if the professor were in the Computer Science Department because writing basic game programs such as in this example would not usually fall with the scope of a computer science professor's employment.

EXAMPLE:

Hypothetical: A physics professor who has been at Vanderbilt three years is approached by a corporation that wants to license technology created by the professor ten years ago at another university. The professor has done no work on the technology since coming to Vanderbilt.

Comment - Proposed Policy: Vanderbilt claims no rights in this technology or income from its sale. The professor may own all rights depending upon the Policy in place at the institution at which the professor created the technology at the time the technology was created. Similarly, if the professor created technology while at Vanderbilt that the University would own under the policy in existence at the time of creation, the University continues to own all rights to the technology even if it is years later that it is finally commercialized and the professor has since left Vanderbilt. Distribution of income normally will be made to the professor according to the Policy in effect at the time the technology is disclosed to the University. If the technology is developed at two different institutions, joint ownership may result and the two institutions will

negotiate the resulting rights and income distributions between themselves and with the professor.

Existing Policy: The Comments would be the same as under the Proposed Policy.

B. Categories of Research Property.

The technology revolution has left intellectual property law in a state of disarray and flux. While the present Vanderbilt Patent Policy provides for University ownership of patents for inventions made using University funds and facilities, the policy is vague in its definition of other forms of research property. The policy states in a recently-revised section that:

> The University reserves its financial rights to Tangible Research Property (TRP), including computer software, regardless of whether such TRP is patentable or copyrightable. The distribution of TRP royalty income will be similar to the income distribution policy for patent royalty income.

Much of what is commercially valuable today is not patentable or otherwise protectable by formal legal regimes and has been described recently by various terms such as "incremental innovation", "new technologies" or "applied scientific know-how." Stanford University, which asserts ownership of this know-how even though it makes disclosure of patentable inventions voluntary, has defined "tangible research property" to include items such as biological materials, software, data bases, circuit diagrams, engineering drawings, integrated circuit chips, prototype devices, and equipment. Businesses and the courts are developing ways for innovators to protect tangible embodiments of such know-how, but the process is not nearly so simple or certain as traditional patent protection. These unpatentable innovations, however, may have greater commercial value than many patentable discoveries. Current Patent Policy language, which refers briefly to tangible research property, is inadequate to include and protect this applied scientific know-how. Broader language is required to make it clear that the University community recognizes the potential commercial value of a wide variety of intellectual creations, with a view to establishing appropriate ownership and licensing procedures similar to those afforded patentable discoveries.

The discussion is somewhat complicated by the fact that the term "intellectual property" is often interpreted in the legal sense to mean the specific "intellectual property rights" given statutory protection under patent, copyright, trademark and, to some extent, trade secret law. To avoid the risk of confusion between the concept of property rights and the actual results of University research and creative endeavor, we will refer to the fruits of these activities simply as "research property." For the purposes of the subsequent discussion, research property can be classified roughly into three categories:

1) Patents, which are afforded statutory protection;

2) Non-patentable technology, innovation, ideas or methods, whether or not copyrightable (Examples include software, databases, circuit designs, industrial designs, biogenetic material and other creations, which may be envisioned as trade secrets and know-how); and

3) Literary or artistic works that were not commissioned by Vanderbilt (Examples include scholarly writings, educational texts, music, and video performance works).

Rather than have the policy delineate specific subcategories of research property that are included or excluded from University interest, it is more straightforward to invoke the Funds and Facilities and Scope of Employment criteria. In this context the University can retain title to patents (Category 1), and other non-patentable technology, innovation, ideas or methods (Category 2) developed using University-administered funds and facilities or within the scope of employment, unless that work was conducted during previously-disclosed outside activities such as consulting, independent research, or summer employment. As is the case under the present policy, **if the University chooses to not file for a patent or to not pursue licensing of particular research property, the University will at the inventor's/creator's request transfer title for this research property to the inventor/creator. Decisions in this regard must in any event be made within one year of the date of disclosure, and can be appealed to the Technology Review Committee. In the case that intellectual property laws vest the investigator with title as a matter of law, the investigator agrees to transfer title or other interests to the University in order to effectuate the purpose of this policy.**

The University has always left copyright ownership with the author of scholarly writings and other publications. This is the traditional "teacher's exception" to the old copyright law. The current Copyright Act may have eliminated that exception, but many institutions continue it as an important tradition and the courts have not yet settled the matter. The current Patent Policy reflects this tradition, which rests on the philosophy that scholars should be unrestricted and undirected in their communication and dissemination of information. The treatment of copyrights is clearly delineated in the present policy:

> Except for writings that pertain directly to inventions and discoveries of a patentable nature, writing done under contract with a third party, and copyrightable works for which ownership is ascribed to the University through externally funded projects, all rights to copyrightable material shall be reserved by the author, and arrangement for publication and copyrighting shall be left to the individual writer. The University assigns to the dean of the school in which the writer is employed the responsibility for negotiating equitable terms covering writing done under contract and seeing that the University's responsibilities under the contract are fully carried out.

Based upon this provision, some Vanderbilt faculty have earned substantial income from royalties on textbooks written while at Vanderbilt. The University community in turn benefits from an enhanced reputation. In such copyrightable works, it is reasonable for the author to state the nature of his or her association with Vanderbilt. It is of concern to the University community when a faculty member wishes to use his or her affiliation with Vanderbilt as a marketing tool. Any commercial exploitation of the Vanderbilt name or reputation (or any Vanderbilt school or other University entity), such as in the identification of a program, process, series or underlying research or idea as having been "developed at or by Vanderbilt" should, based on the Principles of Transparency and Fair Play, require the written permission of the University and should include recognition of and negotiation of the University's financial rights in the project. This step should also give the parties an opportunity to ensure that the University is protected against liabilities from third parties.

There have been cases in which faculty publications or presentations do not constitute communication of new information, but are closer to a commercial franchise of a University project. For example, under the traditional view, if a faculty member from the Owen School of Management or the Department of Economics wrote a book about investment, the copyright ownership and profits from that book would remain with the author. However, should that same professor decide to further market this investment theory by creating additional publications, holding workshops, and franchising protocols, then these activities would go beyond what the current Patent Policy intended to exempt. This represents commercial exploitation or application of data, research results, methods, discoveries, and other non-copyrightable matter that originated in the course of University activities or in the field or scope of employment.

It is not to say that these types of activities are necessarily bad; they just need to be reconciled with the Principles of Equity, Fair Play, and Transparency, and conflicts of interests must be resolved. In situations involving commercialization of Vanderbilt research, or the Vanderbilt name, some income should be returned to the University community in recognition of the support it has provided. The Committee therefore **recommends that copyright ownership of books and other publications used simply to disseminate information would remain with the authors and the University community would derive no income from them. The University, however, should share in the profits accruing from any organized commercial campaign that exploits non-scholarly Literary and Artistic Works that were created with the use of University funds or facilities or that represents a capitalization on an affiliation with the University.**

During the 1992-1993 review by the Senate Committee on Business and Non-Academic Affairs, concerns were raised with regard to totally electronic texts. The difficulty in distinguishing between electronic texts and generalized electronic information tools was recognized. In this context, tools such as CAD software, Pascal compilers, scientific spreadsheets, equation solvers, or generalized courseware authoring systems would be treated as technology, but a product created using these tools as an electronic text on a specific subject would be covered by the historical exemption for literary and artistic works.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

All rights in scholarly books, articles and other publications, artistic, literary, film, tape, and musical works ("Literary and Artistic Works") are granted to the faculty, staff, and students who are the authors. Literary and Artistic Works includes texts that have been stored on computer media, but excludes computer programs or computer software or databases that are neither accessory to nor an electronic expression of a scholarly text. All rights in non-scholarly Literary and Artistic Works created with the use of University funds or facilities, or that capitalize on an affiliation with the University, are granted to the University and income distribution shall be handled in the same manner as Technology. Commercial use of the University's name and marks requires prior University approval.

QUESTION: What determines whether a literary or artistic work is scholarly dissemination rather than non-scholarly?

If a literary or artistic work is of a type normally created by professors for scholarly dissemination, the presumption will be that scholarly dissemination is the purpose, no matter how much the work earns commercially. One consideration might be whether a faculty member would include the work as part of a basis for tenure or a promotion. The standard will be broadly interpreted. Any disagreement between the faculty member and the administration would be subject to the review and recommendation of the Technology Review Committee before final determination.

QUESTION: If a faculty member creates a literary or artistic work unrelated to his or her field that clearly was intended for commercial exploitation, does the Policy give all rights to that work to the University?

No. The Policy grants all rights to such work to the University only if University funds or facilities were used in its creation or if the work capitalizes on an affiliation with the University. Capitalizing on an affiliation with the University would include such things as a marketing campaign that touts a methodology as "having been developed at Vanderbilt" or "based on research conducted at Vanderbilt." (The use of the University's name also raises the separate issue of the necessity of a license from the University authorizing that use.)

Incidental use of a professor's office, studio, or personal computer would not be considered use of University funds or facilities. The use of resources such as support staff, lab space, and equipment, long distance telephone charges, University research and development funds, or the University's name would be considered use of University funds or facilities.

EXAMPLE:

Hypothetical: An associate professor of geology at Vanderbilt, as part of her University research using University facilities and staff support, writes a book entitled *Earth: Core and Crust*, which earns $5,000 in royalties. The work is picked up by a television producer for an hour-long program that the professor helps write and in which she appears. Revenue from the television work is $50,000. No additional University resources, other than the professor's normal salary, office, computer, and staff support, were invested in the book or the movie.

Comment - Proposed Policy: This book seems to be the type of scholarly work that is within the professor's scope of employment. It is what the University pays the faculty member to do. Thus, assuming it is a literary work disseminating scholarly information and the show is based on this work, the presumption is that its purpose also is scholarly. The professor owns all rights to the book, and the University expects no sharing of income from the book.

Assuming no issues exist concerning the use of the University name, such as a publicity campaign for the book or show that they are based on research conducted at Vanderbilt, the University would expect no sharing of income from the television show. No such issues would be raised by the simple identification of the author as a Vanderbilt professor. (It should be noted that this Policy may not be the professor's only consideration. Her participation may also raise issues of conflict of interest concerning the commitment of her time, which would be handled under the University's conflict of interest policies and the policies of her department and school.)

Existing Policy: In this case the professor's rights would be the same under the existing policy as under the Proposed Policy.

EXAMPLE:

Hypothetical: A professor of German writes and produces off-campus during the summer a video film entitled *Goethe and Werther*. The video is first shown on a local educational television channel, then licensed to a distributor for reproduction and sale. The video earns the author $25,000 in royalties.

Comment - Proposed Policy: The professor would own all rights to the film and the University would have no right to any royalties. The film may be a scholarly work, in which case even if it were written during the school term, the professor normally would retain all rights. If it clearly is not scholarly (and thus clearly could not fall within the professor's scope of employment), it would belong to the professor unless University resources (beyond incidental use of office, studio, or personal computer) were used in the production.

If University facilities and personnel were used in the production (understanding that arrangements for this use and the professor's time spent on it would need to be authorized in advance), the rights would belong to the University unless other arrangements were made in advance. The professor and the University would work together to license the product (with the University either bearing expenses or opting to assign all rights to the professor), and the University would receive all royalties, distributing them according to the chart found in the Policy. The professor would receive 50% of the first $100,000 in net royalties (after recoupment of expenses) each year and 40% of all annual royalties above that.

Existing Policy: Under the existing policy, all rights to the film would belong to the professor. No provision of the existing policy covers cases in which University facilities are used for production, and individual arrangements would need to be made to arrange for and compensate the University for that use.

EXAMPLE:

Hypothetical: A Sociology professor applies for and is awarded a summer research grant to study achievement test performance and factors affecting that performance. The research results in a set of training principles for raising achievement test performance among disadvantaged students. The professor publishes a book outlining the results of the work and the methodology, which is complex to administer. Royalties on the book are $10,000. A national training company wants exclusive rights to distribute commercially a "how-to" manual for the general public based on the principles, but is interested only if it can market the manual as being based on data developed at Vanderbilt. (Presumably the principles themselves are ideas that are not copyrightable, and the manual could be produced without permission of the professor or Vanderbilt, but in that case also could not use the name of either). Income from the manual is projected at $100,000. In addition, the professor is paid $30,000 for personal appearances on talk shows.

Comment - Proposed Policy: The book is a scholarly work that belongs to the author. The University retains no rights to any royalties. The how-to manual, however, seems to be non-

scholarly and will capitalize on an affiliation with the University. The commercial use of the Vanderbilt University name or marks would require prior University approval, and thus the University would own the rights to this work. Distribution of royalties from the workbook would be according to the formula outlined in the Policy. The faculty member would receive 50% of the first $100,000 in net royalties, and 40% of all royalties after that. The talk show income would be retained by the professor, assuming that appropriate approvals were obtained by the professor for any conflicts of interest or commitment raised by his appearances.

Existing Policy: Under the existing policy, rights to the book and the manual would belong to the professor. Authorization to use the University's name, however, would need to be obtained and terms, including compensation to the University, would need to be negotiated. The talk show income would also remain the professor's with the same caveats mentioned above.

EXAMPLE:

Hypothetical: In his spare time an associate professor of French writes romance novels set in France during the French Revolution under the pseudonym "Marie LeBlond." Combined income from three books is $100,000.

Comment - Proposed Policy: These works clearly are not literary and artistic works that are scholarly in nature. Assuming University funds or facilities are not used (other than perhaps incidental use of the professor's office and personal computer), the rights would remain wholly with the professor because the romance novels do not capitalize on an affiliation with the University. The result would be no different if the professor wrote the novels in his or her own name.

Existing Policy: The provisions would be the same.

EXAMPLE:

Hypothetical: An associate professor in the Blair School of Music is commissioned by an outside entity to compose a symphony for a fee of $50,000.

Comment: Under the Policy, the symphony would be a musical work presumably for scholarly dissemination (commissioning may be the only way the work can be disseminated and does not make it only commercial). Thus all rights to the work would belong to the professor.

EXAMPLE:

Hypothetical: A professor in the Blair School is commissioned to write the music for an advertising jingle for a fee of $5,000.

Comment - Proposed Policy: Presumably this would not be considered scholarly work. If Vanderbilt funds or facilities are used (other than incidental use of studio, office, or personal computer), then the work would belong to Vanderbilt. (If this were the case, the deal should never have been made by the professor in the first place without advance arrangements for the use of and compensation for University resources because it involves the use of University facilities on private consulting work). If Vanderbilt facilities or funds are not used (other than

incidental use of the professor's studio, office, or computer), and if the work did not capitalize on an affiliation with Vanderbilt, then ownership rights and all income would belong to the professor. This of course assumes that the work does not conflict with University duties and satisfies any other requirements for outside consulting.

Existing Policy: Under the existing Policy, the rights to the work and all income would belong to the professor. This would be true even if University facilities were used. However, the use of University facilities for this type of outside work without prior arrangement and compensation to the University would present a conflict of interest.

EXAMPLE:

Hypothetical: A professor in the Fine Arts department paints an abstract oil on canvas that she subsequently sells to a corporation. She purchased her own supplies yet worked on the piece in her University studio. Subsequently she also assigns rights to a t-shirt company to reproduce the work on race t-shirts. Her total income from the work is $30,000.

Comment - Proposed Policy: In this example, the use of the studio is no different from an English professor typing a Marie LeBlond novel on the word processor in the professor's Vanderbilt office. The professor would own all rights to the painting and all income from its sale and assignment of the copyright. If the painting is determined to be a scholarly work, the professor would own the rights even if University supplies were used. If the painting is not a scholarly work she will own all rights in the hypothetical described because no University funds or facilities were used except for incidental use of her studio. If instead, the primary use that the professor made of the studio was to mass produce silk screened, abstract tee shirts for commercial sale, this use of the studio would not be viewed as incidental. If the professor, the departmental chair, and dean disagreed about the nature of this use, the issue could be brought before the Technology Review Committee for their recommendation.

EXAMPLE:

Hypothetical: A chemistry professor publishes a basic chemistry textbook that is accompanied by a software disc that illustrates principles contained in the text. The text and disc are sold as a package and the professor receives $8,000 in royalties for the first year.

Comment - Proposed Policy: The text and the disc would be considered a scholarly literary work, the rights to which belong to the author, along with all income. Because the disc is accessory to the text it would be regarded as a "Literary and Artistic Work" rather than treated as software technology.

Existing Policy: Under the existing policy, rights in the text clearly would belong to the author. Although software accessory to texts is not distinguished in the existing policy from other software, in practice the treatment would be the same as with the proposed policy.

VI. DISTRIBUTION OF ROYALTY INCOME

The present distribution of royalty income at Vanderbilt and several other schools is given in Table I. While there are notable similarities and differences among the schools, it is clear that each school uses the distribution of income from research property to encourage faculty to generate this type of income, and that the benefits of this income are shared across various levels of university organization.

Table I. The Present Income Distribution Plans at Vanderbilt and Five Other Universities

	Inventor/ Creator	Inventor's Laboratory	Inventor's Department	Inventor's School	Technology Promotion	Technology Research Fund
Vanderbilt University						
First fifty thousand	40%	Note A.	30%	20%	10%	0%
Next fifty thousand	40%		25%	25%	10%	0%
Next 400, 000	40%		10%	40%	10%	0%
Over 500,000	40%		5%	25%	5%	25%
Duke University						
Any income derived	50%	10%	10%	20%*	10%	
Harvard University						
If inventor files non-medical patent	All Income					
Medical patent or if Harvard files patent						
First 50,000	35%	15%	15%	(35-X)%	X%	
Over 50,000	25%	20%	20%	(35-X)%	X%	
Stanford University						
If inventor files patent	All Income					
If Stanford files patent	33%	(33-Y)%	Y%	(34-Z)%	Z%	
The Johns Hopkins University						
First 30,000 per year	1/3	4/9	2/27	4/27		
Second 30,000 per year	1/3	1/3	1/9	2/9		
Above 60,000 per year	1/3	2/9	4/27	8/27		
Tulane University						
Non-Medical	50%		10%	40%		
Medical			15%	35%		

Note A. If inventors wish to contribute a portion of their royalty income to the University for the support of the inventors' research program, the University will match such a contribution dollar for dollar from the department's share. Such contributions and matching funds shall be credited to a restricted account controlled by the inventor for that research, subject to University policy applicable to such accounts.

X,Y,Z portions to be determined on a case-by-case basis.

*To the University

In order to understand the potential fiscal impact of technology transfer on a university, it is useful to review the success enjoyed by Stanford University. In 1969-70, Stanford was issued only three patents, three licenses were signed, and the $55,000 of royalty income were received. By 1979-80, these numbers had risen to 13 patents, 13 licenses, and $393,000 of income. By 1989-90, the numbers of patents and licenses had risen to 46 and 40, respectively. The 1989-90 royalty income of $14,100,000 reflected to a large extent the effect of the few patents on recombinant DNA techniques, which are jointly held with the University of California at Berkeley. Thus license income can be affected significantly by only a few patents. Seldom are schools are so successful. For comparison, between 1972 and 1990, Vanderbilt was issued a total of 36 patents but only earned $400,000 in royalties during this 18 year period. With a more rigorous effort toward commercialization, in FY 91 and FY 92, Vanderbilt earned over $100,000 and $400,000 respectively. Vanderbilt was also issued 6 and 5 patents during these two years. While total royalties are now approaching a cumulative total of $1,000,000, several technologies presently being transferred are expected to contribute substantially in the future. The only way to ensure income from technology transfer is to create at the outset the incentives, including significant assistance with technology transfer, that would encourage faculty to create commercially-valuable property. As technology transfer activities grow, the portion of royalties returned to the university will both provide the support and resources necessary to continue the efforts, and substantially reward the inventors. A viable technology transfer program should also encourage additional research funds from industry.

A. Department versus School Distribution. One inconsistency in the present distribution scheme arises from the fact that in some units of Vanderbilt, the inventor's school plays a significant role in the financial support of faculty salaries and facilities while the department has little or no funds of its own for research support. In other schools, the bulk of the funds for salary and equipment must be raised by the investigator. Thus the present distribution plan effectively reimburses some departments for funds expended by their school. Similar differences exist in the recovery of indirect costs from externally sponsored research.

A more equitable procedure might be to allow each school to determine how the income is to be distributed. In this case, the distribution plan could become

Table II. An Alternative Income Distribution Plan for Vanderbilt Schools That Fund Faculty Salaries

	First $50,000	Next $50,000	Next $400,000	Over $500,000
Inventor	40%	40%	40%	40%
Inventor's School	50%*	50%*	50%*	30%*
Technology Promotion Fund	10%	10%	10%	5%
Technology Research Fund	0%	0%	0%	25%

*At the option of each school, a designated portion of these funds may be distributed to the inventor's department.

Upon consultation with faculty, chairs, and administrators within the School of Medicine, it became apparent that the funding practices in the School of Medicine, particularly in regard to the use of external research funds to support faculty, were sufficiently different from the practices in the non-medical units of the University to justify having two different income distribution schemes. **The Committee initially recommended that the income distribution for the Medical School be given by Table I, and the income distribution for the non-medical units of the University be given by Table II. This distribution plan is summarized in Table III.**

Table III. Income Distribution Plan Considered Initially

	First $50,000	Next $50,000	Next $400,000	Over $500,000
Inventor or Creator	40%	40%	40%	40%
For nonmedical: Inventor's or Creator's School	50%*	50%*	50%*	30%*
For medical: Inventor's or Creator's School Inventor's or Creator's Department	20%* 30%	25%* 25%	40%* 10%	25%* 5%
Technology Promotion Fund Technology Research Fund	10% 0%	10% 0%	10% 0%	5% 25%

*At the option of each School, a designated portion of these funds may be distributed to the Inventor's department.

The Committee felt that **the existing practice of having the University match whatever funds an inventor returns to his or her University research program from the inventor's share of the royalty should be continued.**

The Committee also recommended that **flexible royalties should be considered. While the present 40/60 split between the Inventor(s) and the University seemed appropriate for patents, a somewhat larger return to innovators and creators may be in order as regards to non-patentable technology, innovations, ideas or methods for which the University's role in the creation or commercialization of the work was less substantial. Under exceptional circumstances, the patent royalty split might be adjusted subject to negotiations between the University and the inventors or creators. The royalties on intellectual creations and innovations not covered by issued patents would fall within a yet-to-be-decided range, with the Technology Review Committee providing arbitration in the event that an agreement could not be reached between the inventors or creators and the Office of the General Counsel. Authors, artists, and other creators of literary and artistic works in the historical and ordinary sense, would continue to receive all royalties, subject constraints regarding commercial exploitation and to other provisions of this policy that treat some copyrightable works, such as computer programs, on an equal basis with technological innovations.**

The Committee then circulated draft versions of both this document and the proposed policy to the deans of schools with significant technology transfer activities, and to other administrators and interested faculty members. Appointed representatives of the Patent Committee met with the deans of the College of Arts and Science, the Schools of Engineering and Law, the Owen School of Management, the Peabody College of Teachers, the Blair School of Music, and the Medical School. The issues of direct support to the inventor's/creator's individual research program and to his or her department were raised again, as was the need for the policy to reflect the differences in the sources of funding of faculty salaries. In the College of Arts and Science, less than 1% of the salary budget for regular, full time academic faculty is charged to external grants and contracts, with the balance paid by College funds. In the Medical School, approximately 75% of faculty salaries are derived from external funds. The Engineering School more closely approximates the College than the Medical School.

Of particular concern was the realization that, based upon recent rulings, the Internal Revenue Service would probably not allow an inventor to claim as a tax deduction a donation of personal royalty income to Vanderbilt specifically in support of his or her research, since the IRS viewed that inventor/creator would still maintain control over the funds unless they were given to the University as an unrestricted gift. One way to avoid paying income tax on the amount donated in support of specific research might be for the inventor/creator to make an irrevocable transfer of the royalty income to the University. The Committee felt that either payment of taxes on the amount donated or the irrevocable assignment of income would significantly reduce the incentive for an inventor/creator to make a donation with the intention that the University would match it from its share of the royalty income, but in certain circumstances this option might be utilized.

As a result of this reappraisal, an entirely new distribution scheme, indicated in Table IV, was eventually agreed upon by the Committee and the various administrators.

TABLE IV. Proposed Income Distribution Plan

	Inventor/ Creator	Inventor's Laboratory	Inventor's Department	Inventor's School	Technology Promotion	Technology Research Fund
Non-Medical						
First 100,000 per year	50%	10%*	0%	30%	10%	0%
Above 100,000 per year	40%	10%*	10%	25%	5%	10%
Medical Center						
First 100,000 per year	50%	0%	20%	20%	10%	0%
Above 100,000 per year	40%	0%	25%	20%	5%	10%

*For as long as the inventor remains at Vanderbilt. If the inventor leaves Vanderbilt, the inventor's school share is increased by 10%.

For multiple co-inventors/creators, the shares will be apportioned consistent with this schedule.

From the perspective of the Medical School administration, the specific allocation of income between the several categories reflects several factors. First, the investigator should be identified with a substantial portion of the income. The investigator's laboratory might or might not be the focus of need. Further, the department is responsible for the facilities and for other matters related to the faculty member/investigator and that laboratory. It will be possible for the income derived from a particular patent/invention to be used and allocated by the department for the laboratory of the investigator, if that investigator, for instance, might allocate a portion of his own income as a matching amount for departmental contribution. This provides the investigator laboratory an opportunity for support, but not assurance. It is strongly felt that the department is the agent and organization of the institution responsible for the facilities and for people holding titles and positions within the department. Accordingly, it is the department that should be the point of reference in relationship to income derived rather than the laboratory as a predetermined recipient, although the laboratory may be a recipient through allocation based on best judgment by department and/or investigator. Similarly, the school is identified with the income in as much as the school provides for the departments. The promotional fund is meant to identify with expenses and pay those expenses which are essential, or important, to the promotion of the invention. The research fund identified only with income beyond $100,000 is meant to be a general fund for the promotion of research. It needs to be identified at the institutional level with the institution's leadership insofar as its allocation is concerned.

The proposed distribution scheme gives the inventor/creator a larger personal share of the net income from technology transfer than does either the present Policy or alternatives considered, and as such is consistent with the other schools surveyed. The funds to the laboratory in the non-medical portions of the university should serve to stimulate further entrepreneurial activity, without the challenge to the Internal Revenue Service that would have occurred had any inventor/creator chosen to exercise the matching option allowed by the present Policy. The existing practice of having the University match funds an inventor/creator returns to his or her research program may be done on a case by case basis, if requested by the University and approved by the Dean or, in the Medical Center, by the Vice Chancellor for Health Affairs.

The new policy is not cumulative, since the income thresholds for adjusting the percentages are on an annual basis, and as a result all components of the distribution system will benefit more uniformly over time.

Thus the Committee believes that the proposed income distribution plan will maintain a significant incentive to the inventor/creator to proceed with technology transfer, and, at the same time, represents a distribution of income that will be fair not only to the inventor/creator, but also to the University Community as a whole.

B. Noncash Income. Sometimes it is in the best interest of the University and the inventor to license technology in return for an equity interest in the company licensing the technology or other non-cash forms of return. The distribution of these other forms of income necessarily may differ from the distribution timing and formula used for ordinary royalty income. However, the principles of the formula will be retained and the distribution of the stock or other return will follow as closely as possible the normal distribution formula. In each case, the details will be negotiated between and among the University, the inventor, and the licensor.

C. The Technology Promotion and Technology Research Funds. The present Patent Promotion Fund typically contains only $20,000 to $30,000, which has accumulated over several years. While no invention at Vanderbilt has yet to provide sufficient income to result in any contribution to the University Research Fund, it would be imprudent not to structure the new policy to cover the eventuality of a single, phenomenally successful patent. The Technology Promotion Fund is viewed as a source of funds to promote specific technologies. Expenditures might cover such items as the hiring of external consultants to foster the licensing of a particular invention, or the expenses of a faculty member who is willing to go to a patent trade fair to promote his or her invention. Because only limited funds are at present available for technology promotion, these funds have yet to be used to promote individual research efforts. **Expenditures from the Technology Promotion Fund would be made at the discretion of the University with periodic review by the Technology Review Committee.**

In recognition that some universities, such as Stanford and the University of California at Berkeley, have received substantial income from a single patent, the present policy provides that 25% of patent income above $500,000 is to be placed in the University Research Fund. **To avoid confusion of this fund with funds administered by the University Research Council, we recommend that the University Research Fund be renamed the Technology Research Fund. At present, no money has been deposited to this fund; in the event financial resources become available in the future, the Technology Review Committee would be responsible for proposing an equitable, peer-review mechanism for the disbursement of these funds. Because it is difficult to anticipate the income likely to accrue to either the Technology Promotion Fund or the Technology Research Fund, the Technology Review Committee would be empowered to recommend transfers of funds from one to the other, based upon the income to and demands upon each.**

D. University Expenses. Net income is defined as the balance of income remaining after recovery of total University expenses and any special project advances. At this time, the University does not deduct the expenses of the Technology Transfer Office or the Office of General Counsel from licensing income, thus the expenses deducted are those outside expenses directly related to that technology.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

The general principle sought by this Policy is to direct income from income-producing discoveries toward Inventors or Creators, assure the transfer and development of those discoveries for the public benefit, and provide for the funding of future research by faculty of Vanderbilt University.

For purposes of this Policy, "income" is defined as royalties or return received from the transfer or licensing of Technology. Net income is defined as the balance of income remaining after the recovery of (1) total University expenses directly related to generating and securing income from a specific Technology, and (2) any special project advance by the School or other organizational unit of the University. These University expenses will consist of expenses such as legal fees; application, issuance, and maintenance fees for patents; legal fees and other direct expenses concerning licensing or transferring that Technology; and direct marketing and patent promotion costs for that Technology. Special project advances from the School or othe-

organizational unit of the University will be detailed in writing at the time the advance is made. Only net income will be allocated to the Inventors and Schools. Upon request, the Office of Technology Transfer will provide an Inventor or Creator with a listing of expenses incurred to date on his or her Technology, and such expenses shall be reported quarterly to the Vice Chancellor for Health Affairs.

A percentage of the net income (see Schedule below) derived from the transfer, licensing, or commercial exploitation of Technology shall be placed in a Technology Promotion Fund that will be used for promotion of specific Technologies.

A percentage of the net income (see Schedule below) derived from the transfer or licensing of Technology that is sufficiently profitable shall be placed in a Technology Research Fund with the Technology Review Committee responsible for proposing an equitable mechanism of peer review for disbursement of these funds.

Net income from the transfer or licensing of Technology will be allocated according to the percentages in the following Schedule. The intent of this Schedule is that small discoveries will primarily aid Inventors and Creators and their research efforts, while large inventions will aid the School proportionally more.

SCHEDULE
Net Income

	Inventor/ Creator	Inventor's Laboratory	Inventor's Department	Inventor's School	Technology Promotion	Technology Research Fund
Non-Medical						
First 100,000 per year	50%	10%*	0%	30%	10%	0%
Above 100,000 per year	40%	10%*	10%	25%	5%	10%
Medical Center						
First 100,000 per year	50%	0%	20%	20%	10%	0%
Above 100,000 per year	40%	0%	25%	20%	5%	10%

**For as long as the inventor remains at Vanderbilt. If the inventor leaves Vanderbilt, the inventor's school share is increased by 10%.*

For multiple co-inventors/creators, the shares will be apportioned consistent with this schedule.

The Inventor's or Creator's share shall be paid directly to the Inventor. Funds designated for Departments and Schools are to be used primarily for funding research by the faculty.

In exceptional circumstances with the approval of the appropriate Dean and the Provost or the Vice Chancellor for Health Affairs, the royalty split for Technology may be adjusted subject to negotiations between the University and the Inventor and Creator.

QUESTION: If a faculty member is required to pay 50% of royalties earned to Vanderbilt, who bears the faculty member's tax liability on that amount?

This question reflects a misunderstanding of royalties paid to the University on Vanderbilt owned technology. No situation exists in which a faculty member pays Vanderbilt--under the existing or the proposed policy--unless that were a term negotiated between the parties in an unusual case. Thus, no tax liability exists for a faculty member except for income received and retained by that faculty member. The policy determines ownership in the technology, and normally Vanderbilt receives income only on the technology that the University owns. In these cases in which the University owns the technology, the income comes to Vanderbilt, and Vanderbilt pays a share to the faculty member, not vice versa. If the faculty member owns the technology no obligation exists to share royalty or other income with the University; the faculty member would retain all income as well as all tax liability for that income.

VII. THE ROLE OF THE PATENT COMMITTEE

The current patent policy provides for a Patent Review Committee that will treat only inventions and discoveries subject to statutory protection. The present policy gives the Patent Committee three primary functions: to determine whether the University has an interest in an invention, to determine whether a disclosure is one for which a patent should be filed, and to advise on policy. Its decision-making authority covers:

> Determining whether the University has an interest in inventions, and in particular whether inventions or discoveries were made with University facilities or with funds administered by the University,
>
> Determining whether the discovery is one for which a patent should be filed, and
>
> Approving allocations from the Patent Promotion Fund.

Its advisory role includes:

> Advising on negotiations and agreements with inventors concerning the development of inventions and discoveries and proprietary developments;
>
> Advising on overall patent policy and related matters;
>
> Advising on copyright and trademark policy; and
>
> Advising on the ownership and distribution of the University's Tangible Research Property which is produced in the course of research which uses University facilities or funds administered by the University.

As we discussed in detail earlier, **the Patent Committee concluded that the University community has a potential financial interest in much new technology, particularly certain computer software and biogenic material that remains of commercial value even if it is**

unpatentable. In recognition of this principle, the Patent Committee should be re-named the Technology Review Committee.

A. Daily Administration.

In the past several years, the level of patent activity has increased dramatically, as evidenced by the number of disclosures and patents issued. In the past, the Patent Committee decided whether or not to pursue each invention. However, most disclosures follow the same legal routine, and there is no question but that the University has an interest in all patentable inventions. The Patent Committee often found that it did not have the requisite expertise to determine whether a patent should be filed, and as a result began to rely heavily on the ability of the General Counsel's Office to obtain external patent counsel opinion for making that determination. In recent years, the Patent Committee has agreed in almost every instance to proceed with the initial legal review of a patent disclosure by an external attorney, who then provides a well-informed judgment with regards to the patentability of the invention. The subsequent decision by the University of whether or not to file a patent application has in general been in direct response to the recommendations of the external attorney after a review of detailed information prepared by the inventors and possibly a preliminary patent search. One might imagine that if the level of patent activity at Vanderbilt were to become so great that sufficient funds were not available to review externally the patentability of each disclosure, then it would be necessary for the Patent Committee to ascertain which disclosures were most worthy of pursuit. However, this is not yet the case, and virtually every patent disclosure is reviewed externally.

It is often important that a disclosure be acted upon quickly to avoid a publication bar. The infrequent meetings and the summer hiatus of the Patent Committee have led to a situation in which decisions regarding the filing of a patent and the subsequent licensing of technology could not be made by the Committee.

The net result of this evolution in procedure is that within the past five years the Patent Committee has found it impractical to funnel all ownership and patent decisions through the Committee and has, in effect, progressively delegated increasing authority for making routine decisions initially to the staff of the Division of Sponsored Research and then to the Office of the General Counsel. As this office gains experience with the prosecution of patents, the administrative process appears to be proceeding with greater efficiency. In recognition of the success of this change, the Patent Committee now formally recommends **that the Committee delegate to the General Counsel's Office the day-to-day decision-making authority concerning whether or not the University has an interest in an invention and whether or not the University wishes to file for patent protection. This Office would be encouraged to seek the advice and guidance of the Technology Review Committee when appropriate. At the beginning of each academic year, the Office of the Vice-Chancellor for University Relations and General Counsel will present to the Technology Review Committee an annual report of the patent and licensing activities over the preceding 12 months. Status reports will be provided at every subsequent committee meeting.**

B. Dispute Settlement and Oversight.

These changes in procedure have led to an uncertainty in the role of the Patent Committee. The great strength of the Patent Committee is that it provides a faculty and research perspective on the problems of protecting and commercializing inventions and discoveries and it allows faculty to participate directly in the formulation of policies affecting the transfer of technology. It could also serve a valuable function as an appeal body for an inventor or creator who did not agree with the decisions of either the General Counsel's office or external counsel. **Thus we recommend that the Committee should be responsible for monitoring implementation of the Policy on Technology and Literary and Artistic Works, for hearing grievances arising under the Policy, and proposing revisions to the Policy. Towards this end, the Committee would, among other things, serve as an appellate body in the event of a disagreement among multiple inventors/creators, or between the inventors/creators and the University as represented by the General Counsel's Office. In the event that the Committee proves unable to resolve such disagreements, the Committee would forward a recommendation to the Chancellor for his decision. The Committee should also serve as an advisory body that would monitor the implementation of the new policy and express opinions concerning issues that might arise under it. The Committee should be consulted well in advance of the Senate's or the Administration's making changes to the Policy on Technology and Literary and Artistic Works as set out in the Faculty Manual.** The effect of these recommendations would be to expand the Committee's jurisdiction and transform its decision-making authority into that of an appellate and advisory body.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

The Chancellor of the University shall be responsible for matters of policy relating to Technology Transfer and affecting the University's relations with Inventors or Creators, governments, private research sponsors, industry, and the public. The Office of the Vice Chancellor for University Relations and General Counsel, through the Office of Technology Transfer and in coordination with the Provost and the Vice Chancellor for Health Affairs, shall be responsible for administration of this Policy, including the evaluation of patentability or other forms of protection, the filing of patents, licensing activities, and pursuit of infringement actions, consistent with the terms of this Policy.

. . .

The Committee serves as an appellate body advisory to the Chancellor in the event a disagreement occurs between Inventors or Creators or between Inventors or Creators and the University concerning the interpretation or application of this Policy. In cases in which the Committee is unable to resolve the disagreement between the parties, the Committee will forward its recommendation for a resolution to the Chancellor for final decision.

At the beginning of each academic year, the Office of Technology Transfer will submit to the Committee, the Provost, and the Vice Chancellor for Health Affairs an annual report of the patent and licensing activities of the preceding twelve (12) months,

including an annual accounting statement of income and expenses from Technology in which the University has an interest and an accounting of income and disbursements of the Technology Promotion Fund and Technology Research Fund. Status reports will be provided at subsequent Committee meetings upon request of the Committee.

VIII. PERIODIC REVIEW

It would be valuable to the University community to have a periodic review of the Policy on Technology and Literary and Artistic Works and to assess whether or not the revised Policy has been functioning as intended. For this reason, the new Policy should be subject to a periodic mandatory review. The Committee initially recommended that **the revised Policy should expire in four years; that the Technology Review Committee would be required to initiate a review of this policy beginning on the third September of the new policy; and that the review should be complete and presented to the Faculty Senate by January 1 of the third year for discussion by the Senate and University administration.** Upon more careful reflection, it became clear that such a sunset clause might be interpreted as a lack of confidence by the authors of the policy, and as a potential instability for the policy. A suitable compromise seems to be to require periodic review without sunset, so that faculty and administrative input would be solicited on a regular basis. This would ensure that the policy was being implemented with due regard for the Governing Principles, and that the policy could be readily adjusted as necessary in response to the natural evolution of technology, intellectual property law, and University practice.

PROPOSED POLICY LANGUAGE ADOPTED IS AS FOLLOWS:

At least every fourth year the Technology Review Committee shall review the provisions of this Policy and their efficacy in meeting the interests of members of the University community and the University.

IX. OTHER

Two sections of the policy were discussed during meetings of the Patent Committee but are not presented elsewhere in the text of this report:

The Vanderbilt Research & Development Corporation (VRDC), a not-for-profit corporation controlled by Vanderbilt University, was chartered in December 1986 to facilitate patent management and transfer of Technology arising out of research conducted at Vanderbilt. Any income derived from VRDC investment will be distributed according to the provisions of the funding from VRDC.

The VRDC serves as a vehicle to attract and solicit venture capital funds, which may be combined with Vanderbilt University funds, and invested in selected projects with development potential. It is expected that these projects will be in an advanced phase of research. The VRDC does not replace any of the University's processes that play a role in the research or Technology Transfer process.

Projects involving Technology that meet the above criteria should be submitted to VRDC, 102 Alumni Hall.

• • •

Vanderbilt University is designated a Patent and Trademark Depository Library by the Patent and Trademark Office of the United States Department of Commerce. The patent collection is housed in the Stevenson Center Science Library and is readily available for patent and trademark searches.

APPENDIX A

1989 - 1992 PATENT COMMITTEE MEMBERS

Faculty

June C. Abbey, Chair
Associate Dean, Center for Nursing

James Cadzow, Professor
Electrical Engineering

Lawrence W. Dowdy
Associate Professor, Computer Science

Carl G. Hellerqvist*
Associate Professor Biochemistry

Fritz F. Parl
Assistant Professor, Pathology

J. Leith Potter
Research Professor, Mechanical Engineering

Jerome H. Reichman*
Professor of Law

Janos Sztipanovits*
Associate Professor, Electrical Engineering

John P. Wikswo*†
Professor of Physics

Administrative and Ex Officio Members

Barbara Bennett*#
Assistant General Counsel
University Relations and General Counsel

Eugene W. Fowinkle
Associate Vice Chancellor

John H. Hash
Associate Dean for Biomedical Sciences

Leona Marx, Staff Attorney
University Relations and General Counsel

Paul H. Murphy
Science Librarian, Science Library

Peter W. Reed, Associate Dean
Graduate Studies and Research

Steven H. Smartt, Director
Division of Sponsored Research

Jacqueline B. Shrago
Director of Technology Transfer

William T. Spitz
Treasurer

*Drafting Subcommittee

*†Drafting Subcommittee Chair

#By invitation of the Committee

1992 - 1994 PATENT COMMITTEE MEMBERS

Faculty

J. Michael Fitzpatrick
Associate Professor, Computer Science

Jeffrey T. Holt
Assistant Professor, Cell Biology

J. Leith Potter
Research Professor, Mechanical Engineering

Jerome H. Reichman*
Professor of Law

Clark Tibbetts
Professor, Microbiology and Immunology

John P. Wikswo*†, Chair, 1992 - 1994
A.B. Learned Professor of Living State Physics

Administrative and Ex Officio Members

Barbara Bennett*#
Assistant General Counsel
University Relations and General Counsel

Russell G. Hamilton, Dean
Graduate Studies and Research

Joel G. Hardman
Associate Vice-Chancellor
Health Affairs Med. Admin.

John H. Hash
Associate Dean, Biomedical Sciences

Leona Marx, Staff Attorney
University Relations and General Counsel

Paul H. Murphy
Science Librarian, Science Library

Steven H. Smartt, Director
Division of Sponsored Research

Jacqueline B. Shrago
Director of Technology Transfer

William T. Spitz
Treasurer

*Drafting Subcommittee

*†Drafting Subcommittee Chair

#By invitation of the Committee

APPENDIX B

TECHNOLOGY OWNERSHIP AND COMPENSATION POLICIES OF OTHER UNIVERSITIES AND INSTITUTES

The Committee initially reviewed the policies on inventions, patents, technology transfer, and sponsored research from six other universities: Duke, Harvard, Johns Hopkins, Princeton, Stanford, and Tulane. The provisions of those policies that dealt with ownership of inventions and distribution of any resulting compensation were summarized in the initial June 1991 report of the Committee. Subsequently, the Committee received a request to present this information in a different format and to further explore the policies of other specialized institutes including California Institute of Technology, Carnegie Mellon, Massachusetts Institute of Technology, and Georgia Institute of Technology. This research and reformatting were done, with the results listed along with summaries of the Existing Policy and the Proposed Policy at Vanderbilt:

I. OWNERSHIP OF INVENTIONS

Vanderbilt

Existing Policy: Discoveries or inventions made using University facilities or with support from funds administered by the University are owned by the University with income distributed according to the policy.

The policy appears unclear concerning other inventions or discoveries, although it does state that disclosure of inventions or discoveries made without using University facilities or without such funds is voluntary on the part of the Inventor. It also states that when a discovery or invention is made by an individual associated with the University under circumstances not described by the policy, the Inventor or Inventors shall disclose to the University the particular conditions of the research and the parties will make agreements for the individual situation not inconsistent with the general principles of the policy.

Cal Tech: Inventions made by faculty in the line of Institute duty or with the use of Institute facilities are to be assigned to the Institute or the sponsor. Inventions made by faculty outside their line of duty and on their own time and without the use of Institute facilities are the sole property of the inventor.

Carnegie Mellon: The university owns intellectual property created with substantial use of university facilities and directly as a result of work under an externally sponsored agreement or university sponsored research unless the agreement provides otherwise.

A creator owns all intellectual property created with the substantial use of the university facilities but with no external or internal sponsorship subject to the university receiving 15% of the net proceeds received by the creator above $25,000 and a perpetual non-exclusive royalty free

license to use. If the creator does not commercially develop the university may obtain the rights.

The creator also owns all intellectual property created without substantial use of the university facilities, including software and databases.

Substantial use of university facilities is defined to mean extensive unreimbursed use of major university laboratories, studios, or computational facilities or human resources (valued at approximately $5,000 and more). Incidental use does not include extensive use of facilities commonly available to all faculty such as libraries and offices.

MIT: The inventors or authors will own all materials not developed pursuant to a sponsored agreement, not created as a work-for-hire or pursuant to a written agreement, and not developed with significant use of funds or facilities administered by MIT.

Otherwise, ownership will be vested in MIT or as specified in an agreement.

Use of the library, machine shop, and personal computers do not constitute significant use of funds of facilities administered by MIT.

Georgia Tech: Ownership of inventions developed as a result of assigned institutional effort shall reside with the Institute. Any invention will be considered as having been developed as an assigned duty when conception or development are in the area of principle competence for which the individual is employed.

Ownership of inventions generated on entirely personal time and solely as a result of individual initiative and not as an institutional assignment or employment responsibility, nor involving use of Institute facilities nor resources, normally shall reside with the inventor.

Duke: Inventions resulting from work conducted wholly on employee's own time and without the use of university funds and facilities are considered to be the property of the inventor. To avoid disputes concerning inventions that relate to an employee's field of ongoing research, employees are required to notify their department chair ahead of time before engaging in research activities independently within a subject area of current university research.

Inventions that result from research conducted wholly on an employee's own time involving some but not significant use of university funds or facilities shall be considered the property of the individual, but 10% gross returns shall be remitted to the university.

Inventions resulting from research or work conducted by 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.

Harvard: Except in cases of inventions primarily concerned with medical diagnostics/therapeutics or for the public health, an individual may elect to pursue the patenting and commercial introduction of the invention without assistance from the university and shall be entitled to all royalties and income.

If a member decides not to pursue or fails to pursue a patent or the invention is concerned with medical diagnostics/therapeutics or for the public health, the university has the sole right to determine whether or not to submit the invention for evaluation by an outside agency and royalties or other income will be shared.

Johns Hopkins: If an invention was made with university support, but without government support, the inventor has an obligation to offer the university the opportunity to develop the invention for commercial use subject to any sponsoring agreement. The university may cause the invention to be assigned to Research Corporation or other patent management operations, or the university may decline to accept any rights to the invention.

If the invention was made with government support and the rights are retained by the university, the university may elect to acquire title, cause the invention to be assigned to Research Corporation, or decline to accept any rights. For inventions made without university support, all rights remain with the inventor.

Princeton: Princeton shall own all rights and in any discovery or invention resulting from research carried on by any faculty member in which all or part of the cost is paid from university funds or from funds administered by the university, which is made as a direct result of university duties, or which has been developed in whole or in part with the utilization of university resources.

Stanford: Stanford's invention rights policy allows all rights to remain with the inventor, if possible except for Tangible Research Property, which is either owned by Stanford or subject to the ownership specified in contracts or grants.

Tulane: At Tulane, every invention or discovery made by a faculty member within the scope of his or her employment shall be the property of the university.

Vanderbilt
Proposed Policy: All rights in technology created by Vanderbilt faculty, staff, or students with the use of University facilities or funds administered by the University are granted to the University, with income to be distributed in accordance with the policy.

All rights in technology created by Vanderbilt faculty, staff or students without the use of University facilities or funds administered by the University, but which fall within the Inventor's or Creator's scope of employment, are granted to the University, with income to be distributed in accordance with the policy subject to the following two exceptions in which the University generally will assert no ownership rights or interests:

(1) Technology assigned to an outside entity by a faculty member under a consulting Agreement that is consistent with the University and school policies, including conflicts of interest policies, and that was disclosed in writing to the faculty member's dean and chair in advance of execution of the Agreement by the faculty member.

(2) Technology created pursuant to independent research or other outside activity that is consistent with University or school policies, including conflict of interest policies, and that was disclosed in writing to the faculty member's dean and chair at the beginning phase of this research or activity.

II. EXPENSES AND ADMINISTRATION OF COMMERCIALIZATION

Vanderbilt
Existing Policy: Vanderbilt pays the cost of commercialization of technology it owns with these costs deducted from gross income before distribution.

Cal Tech: Costs shall in no instance be born by the employee, and are deducted from gross revenues prior to distribution.

Carnegie Mellon: If the university owns the technology, the university pays the costs of development unless the university assigns ownership to the creator. Costs are deducted from gross income before distribution.

MIT: MIT pays the cost for commercialization of technology it owns and those costs are deducted from gross revenues prior to distribution, as well as taking 15% off the top of gross revenues to cover expenses of the licensing office.

Georgia Tech: Georgia Tech pays the cost for commercialization of technology it owns and those costs are deducted from gross revenues prior to distribution.

Duke: Duke pays the cost for commercialization of technology it owns and those costs are deducted from gross revenues prior to distribution.

Harvard: Harvard pays the cost for commercialization of technology it owns and those costs are deducted from gross revenues prior to distribution.

Johns Hopkins: If the university elects to pursue technology it owns, the university pays the expenses of commercialization and those expenses are deducted from gross revenues prior to distribution.

Princeton: Princeton pays the cost for commercialization of technology it owns and those costs are deducted from gross revenues prior to distribution.

Stanford: If a faculty member chooses to license a technology through the university, the university pays the expenses and deducts those expenses from gross revenues prior to distribution as well as taking 15% off the top of gross revenues to cover expenses of the licensing office.

Tulane: Tulane pays the cost for commercialization of technology it owns and those costs are deducted from gross revenues prior to distribution.

Vanderbilt Proposed Policy: Vanderbilt pays the cost of commercialization of technology it owns with these costs deducted from gross income before distribution.

III. SETTLEMENT OF DISPUTES BETWEEN UNIVERSITY AND INVENTOR

Vanderbilt Existing Policy: The procedure is not stated specifically, but the Patent Review Committee acts in an Advisory Role on negotiations and agreements with Inventors concerning the development of inventions and discoveries and proprietary developments and on advising on overall Patent Policy and related matters. Also, in the event the parties do not reach an agreement concerning the disclosure of an invention and the particular conditions under which the invention was made, the dispute shall be referred to arbitration under the rules of the American Arbitration Association.

Cal Tech: The Faculty Committee on Patents makes recommendations to the employee and to the university Patent Officer.

Carnegie Mellon: The issue is first submitted to the university Intellectual Adjudication Committee consisting of four faculty members, a faculty chair, and four other members from the administration, staff, graduate student, and undergraduate student bodies. Any party who is dissatisfied with this decision may seek binding arbitration in Pittsburgh according to American Arbitration Association rules.

MIT: The Vice President for Research is the final arbiter.

Georgia Tech: The Vice President for Research or the Patent Committee, with an appeal to the President and in some cases from the President to the Board of Regents.

Duke: The Patent Committee with the decision appealable to the President or upon the President's referral to the Board of Trust.

Harvard: The University Committee on Patents and Copyrights advises the President and the Board of Trust concerning patent issues, but there is no reference to disputes in particular.

Johns Hopkins: There is an appeal to the University-wide Invention Committee.

Princeton: The University Research Board makes final recommendations to the President.

Stanford: There is an appeal to the cognizant Vice President in consultation with the Sponsored Projects Office and the General Counsel's Office.

Tulane: The Senate Subcommittee on Patents makes a recommendation to the President.

Vanderbilt Proposed Policy: The Technology Review Committee, which is chaired by a faculty member and on which the majority of members will be faculty members without administrative appointments, serves as an appellate body advisory to the Chancellor in the event a disagreement occurs between Inventors or Creators, or between Inventors or Creators and the University, concerning the interpretation or application of this Policy.

IV. DISTRIBUTION OF INCOME

Vanderbilt Existing Policy: The first $50,000 received in net income per invention is distributed 40% to the Inventor, 30% to the Inventor's department, 20% to the Inventor's school, and 10% to the Patent Promotion Fund. The next $50,000 is distributed 40% to the Inventor, 25% to the Inventor's department, 25% to the Inventor's school, and 10% to the Patent Promotion Fund. The next $400,000 is distributed 40% to the Inventor, 10% to the Inventor's department, 40% to the Inventor's school, and 10% to the Patent Promotion Fund. Anything over $500,000 is distributed 40% to the Inventor, 5% to the Inventor's department, 25% to the Inventor's school, 5% to the Patent Promotion Fund, and 25% to the University Research Fund.

Cal Tech: The inventor receives 15% of gross income or the inventor may opt to have 50% of gross income applied to support research of the inventor's choosing within their own division. The remainder, after deduction of expenses, will be applied by the Institute to the furtherance of instruction and research.

Carnegie Mellon: 50% of net proceeds to the inventor.

MIT: 15% is deducted for expenses of the Technology Licensing Office, then after deduction of out-of-pocket costs, 1/3 goes to the inventor. On the remainder, there is a deduction or addition for the difference in the 15% and actual pro-rated expenses of operating the Technology Licensing Office, a deduction for out-of-pocket expenses for unmarketable patents generally, with the remainder divided equally between the MIT General Fund and the inventor's lab or department.

Georgia Tech: The first $1,000 is distributed to the inventor. For the remaining income after deduction of expenses, 50% goes to inventor. There may be a different distribution for software.

Duke: Net income is divided 50% to inventor, 10% to the Office of Technology Transfer, 10% to the inventor's laboratory, 10% to the inventor's department, and 20% to other research support.

Harvard: The first $50,000 of net income is divided 35% to the inventor, 30% to the department, 20% to the dean/faculty, and 15% to the president/university. For all net income over $50,000, 25% goes to the inventor, 40% to the department, 20% to the dean/faculty, and 15% to the president/university.

Johns Hopkins: Net income is distributed 1/3 to the inventor, with a substantial portion of the remainder to be distributed through the university budget to support the work of the inventor while he or she is affiliated with Hopkins. The remainder is divided 1/3 to the president's discretionary fund, 1/3 to the inventor's division, and 1/3 to the inventor's department.

Princeton: The inventor receives 50% of the first $100,000 of net income; 40% of the next $100,000; and 30% of all net income above $500,000. If the invention is handled through the university even though the university does not own it, the inventor receives 85% of all net income.

Stanford: After 15% of gross income is deducted for expenses of the Office of Technology Licensing, and other direct expenses are deducted for that invention, the net income is distributed 1/3 to the inventor, 1/3 to the inventor's department, and 1/3 to the University Royalty Income Fund.

Tulane: Net income is distributed 50% to the inventor, and 50% to the university.

Vanderbilt
Proposed Policy: In the non-medical areas, the first $100,000 per year of net income is distributed 50% to the Inventor, 10% to the Inventor's laboratory for as long as the Inventor remains at Vanderbilt, 30% to the Inventor's school, and 10% to technology promotion. Anything above $100,000 per year in net income is distributed 40% to the Inventor, 10% to the Inventor's laboratory for as long as the Inventor remains at Vanderbilt, 10% to the Inventor's department, 25% to the Inventor's school, 5% to technology promotion, and 10% to the Technology Research Fund.

For the Medical Center, the first $100,000 per year in net income is distributed 50% to the Inventor, 20% to the Inventor's department, 20% to the Inventor's school, and 10% to technology promotion. Anything above $100,000 per year is distributed 40% to the Inventor, 25% to the Inventor's department, 20% to the Inventor's school, 5% to technology promotion, and 10% to the Technology Research Fund.

V. TREATMENT OF SOFTWARE

Vanderbilt
Existing Policy: The University reserves its financial rights to computer software. The distribution of royalty income will be similar to the distribution policy for patent royalty income.

Cal Tech: If software is produced in the line of Institute duty, or with the use of Institute facilities, it belongs to the Institute with royalties distributed the same as other technology.

Carnegie Mellon: Software is included with other technology.

MIT: Software is included with other technology.

Georgia Tech: Software is owned by the authors if there is negligible use of Institute personnel and facilities, it is not subject to a contract or grant and it is not generated as a specific assignment nor while acting in any manner in an area of principle competence for which the faculty member is employed.

Duke: The technology policy does not reflect whether or not software is included.

Harvard: The faculty owns the software except where the creation is part of the faculty member's university responsibilities and except in cases of substantial financial assistance or extensive use of rare or special university facilities, or if the production is a joint enterprise.

Johns Hopkins: Software is treated the same as other technology.

Princeton: Software is treated the same as other technology.

Stanford: Software is owned by Stanford unless a contract or grant specifies otherwise.

Tulane: Software is treated as other technology.

Vanderbilt
Proposed Policy: Software is treated the same as technology.

VI. TREATMENT OF OTHER COPYRIGHTABLE MATERIALS INCLUDING ART AND MUSIC

Vanderbilt
Existing Policy: Except for writings that pertain directly to inventions and discoveries of a patentable nature, writing done under contract to the third party, and copyrightable works for which ownership is ascribed to the University through externally funded projects, all rights to copyrightable materials shall be reserved by the author, and arrangement to publication and copyrighting shall be left to the individual writer.

Cal Tech: Copyrights to and royalties from textbooks, reference works, submissions to scientific journals, and other copyrightable materials excluding software produced by the faculty as part of their normal teaching and scholarly activities at the Institute and which do not result from any project specifically funded in whole or in part by the Institute or a sponsor of the Institute, shall belong to authors. If the copyrightable material results from projects specifically funded in whole or in part by the Institute or a sponsor then the copyright belongs to the Institute.

Carnegie Mellon: The creator retains all rights to books, educational courseware, articles, nonfiction, novels, poems, musical and dramatic works, pantomimes, choreographic work, pictorial graphic and sculptural works, motion pictures, and other similar works regardless of the level of use of university facilities. This policy does not include computer software or databases other than educational courseware.

MIT: Copyrightable materials are treated the same as inventions except that textbooks developed in conjunction with class teaching are excluded from the "significant use" category and ownership thus belongs with the author. Also, MIT does not claim ownership of books articles and other scholarly publications or to popular novels, poems, musical compositions, or other works of artistic imagination created by personal effort of faculty outside their assigned area of research and which do not make significant use of MIT-administered resources.

Georgia Tech: For all copyrightable materials except software ownership remains with the individual if there is no significant use of Institute personnel or facilities, libraries excluded, and the materials are not subject to a contract or agreement or as a result of a specific assignment. Copyright belongs jointly to the Institute and the individual if significant support is given by use of the Institute personnel or facilities.

Duke: Copyrightable materials are not addressed in the technology policy. They may be subject to a separate policy.

Harvard: Faculty owns all rights except where the creation is part of a faculty member's university responsibility, and except in cases of substantial financial assistance or extensive use of rare or special university facilities.

Johns Hopkins: Copyrightable materials are not addressed in the technology policy.

Princeton: The faculty member owns the copyright for all publications resulting from scholarly activities except when substantial university support is given. For all other copyrightable materials, the university shall have the right to own the copyright and income for materials developed by an individual whose specific assigned duties include preparation of that material.

Stanford: All copyrights remain with the creator unless the work is a work-for-hire, is supported by a direct allocation of funds from the university for pursuit of a special project, is commissioned by the university, or otherwise subject to contractual obligations.

Tulane: All copyrightable works, whatever the subject or medium created by university faculty or staff must be disclosed to the university. The university will waive its rights to copyright in works that are concerned primarily with the communication of scholarly or artistic information or that are musical compositions or fine arts.

Vanderbilt Proposed Policy: All rights in scholarly books, articles, and other publications, artistic, literary, film, tape, and musical works ("Literary and Artistic works") are granted to the faculty, staff, and students who are the authors. Literary and Artistic Works primarily created for commercial exploitation in the public marketplace rather than for scholarly dissemination, or that capitalize on an affiliation with the University, shall be handled in the same manner as technology.

VII. UNIVERSITY REQUIRES ALL EXISTING RESEARCH AND INSTITUTION AS WELL AS INSTITUTION EMPLOYEES TO SIGN A WRITTEN AGREEMENT ASSIGNING THEIR RIGHTS TO THE UNIVERSITY ACCORDING TO THE APPLICABLE TECHNOLOGY POLICY.

Vanderbilt Existing Policy:	Not specified and not presently required.
Cal Tech:	Written agreement required.
Carnegie Mellon:	Written agreement not required.
MIT:	Written agreement required.
Georgia Tech:	Written agreement required.
Duke:	Written agreement required.
Harvard:	Written agreement required.
Johns Hopkins:	Not specified.
Princeton:	Not specified.
Stanford:	Written agreement required.
Tulane:	Not specified.
Vanderbilt Proposed Policy:	Not specified and not presently required.

APPENDIX C

THE PROPOSED POLICY ON TECHNOLOGY AND LITERARY AND ARTISTIC WORKS

I. GENERAL

This Policy governs the ownership, protection and transfer of Technology (Inventions, Discoveries, and other Innovations) and Literary and Artistic Works created or authored by University faculty, staff or students.

It is the purpose of this Policy to encourage, support, and reward scientific research and scholarship, and to recognize the rights and interests of the creator, author, inventor, or innovator ("Inventor or Creator"), the public, the sponsor, and the University. The University's commitment to teaching and research are primary and this Policy does not diminish the right and obligation of faculty members to disseminate research results for scholarly purposes, which is considered by the University to take precedence over the commercialization of Technology and Literary and Artistic Works. This Policy is intended to be consistent with the University's commitment to academic freedom, faculty involvement in policy development, and the Policy Guidelines for Sponsored Research as provided in the Faculty Manual. In addition, it is intended that application of this Policy will take into consideration principles of open and full disclosure, overall equity, fairness to the Inventor or Creator and the University, the need for understanding and goodwill among the parties who have an interest in Technology or Literary and Artistic Works, and reasonableness in the negotiation of licensing agreements.

An In-Depth Review of the Vanderbilt University Patent Policy and Recommendations for Its Replacement by a Policy on Technology and Literary and Artistic Works, a report prepared by the Patent Review Committee, dated January 1993 (Second Revised Edition), contains the history of this Policy and provides general principles and hypothetical examples. Issues not directly addressed in this Policy, including disagreements concerning its application or interpretation, will be addressed and resolved consistent with these general principles and hypothetical examples.

II. RIGHTS IN TECHNOLOGY

A. Literary and Artistic Works.

All rights in scholarly books, articles and other publications, artistic, literary, film, tape, and musical works ("Literary and Artistic Works") are granted to the faculty, staff, and students who are the authors. Literary and Artistic Works includes texts that have been stored on computer media, but excludes computer programs or computer software or databases that are neither accessory to nor an electronic expression of a scholarly text. All rights in non-scholarly Literary and Artistic Works created with the use of University funds or facilities, or that capitalize on an affiliation with the University, are granted to the University and income distribution shall be handled in the same manner as Technology. Commercial use of the University's name and marks requires prior University approval.

B. Technology.

All rights in Technology created by Vanderbilt faculty, staff, or students with the use of University facilities or funds administered by the University are granted to the University, with income to be distributed in accordance with this Policy. The terms "Inventions, Discoveries, and Other Innovations" and "Technology" include tangible or intangible inventions, in the patent sense, whether or not reduced to practice, and tangible research results whether or not patentable or copyrightable. These research results include, for example, computer programs, integrated circuit designs, industrial designs, data bases, technical drawings, biogenic materials, and other technical creations. Faculty members working with students on research projects must inform those students in advance of the terms of this Policy and of any burdens of non-disclosure or confidentiality deemed necessary by the faculty member to protect resulting Technology.

All rights in Technology created by Vanderbilt faculty, staff, or students without the use of University facilities or funds administered by the University, but which fall within the Inventor's or Creator's scope of employment, are granted to the University, with income to be distributed in accordance with this Policy, subject to the following two (2) exceptions in which the University generally will assert no ownership rights or interests:

(1) Technology assigned to an outside entity by a faculty member under a consulting agreement that is consistent with University and School policies, including Conflicts of Interest policies, and that was disclosed in writing to the faculty member's Dean and Chair in advance of execution of the agreement by the faculty member.

(2) Technology created pursuant to independent research or other outside activity that is consistent with University and School policies, including Conflict of Interest policies, and that was disclosed in writing to the faculty member's Dean and Chair at the beginning phase of this research or activity. Acknowledgement in writing is to be obtained from the faculty member's Dean and Chair.

For purposes of this Policy, factors considered in determining the scope of a faculty member's employment normally would include the relationship of the Technology to that faculty member's recent teaching, research and other University activities, as well as activities stipulated in any appointment contract. Disagreements concerning ownership and other matters regarding this Policy can be appealed to the Technology Transfer Committee in accordance with Section III.B. of this Policy.

For exceptions (1) and (2) above [i.e. consulting and independent research], it is the responsibility of the faculty member to disclose and resolve in advance with the Dean and Chair any potential conflict of interest or overlap in claims of ownership of Technology. If no potential conflict of interest or overlap in claims to Technology is, or reasonably should be, apparent the faculty member need only include in the disclosure the name of the company, if any, for whom the work is being done, the subject area of the work, the expected level of effort, and a statement that no potential conflict or overlap exists in claims of ownership of Technology. In order to maintain a spirit of collegiality, Inventors or Creators have the responsibility for full and open disclosure to the Dean and Chair concerning all matters relating to the

commercialization of Technology in which the University has an interest. In the Medical Center, such disclosures must be copied to the appropriate officer in the Office of the Vice Chancellor for Health Affairs.

C. Works-for-Hire and Employee Inventions.

This Policy does not apply to works-for-hire or employee inventions that are created as a specific requirement of University employment or as an assigned University duty. All rights in these works are owned by the University with no right or interest vesting in the Inventor or Creator.

III. GOVERNANCE

A. Administration.

The Chancellor of the University shall be responsible for matters of policy relating to Technology Transfer and affecting the University's relations with Inventors or Creators, governments, private research sponsors, industry, and the public. The Office of the Vice Chancellor for University Relations and General Counsel, through the Office of Technology Transfer and in coordination with the Provost and the Vice Chancellor for Health Affairs, shall be responsible for administration of this Policy, including the evaluation of patentability or other forms of protection, the filing of patents, licensing activities, and pursuit of infringement actions, consistent with the terms of this Policy.

B. Technology Review Committee.

A Technology Review Committee shall be appointed by the Chancellor with nominations for faculty positions being made by the Consultative Committee of the Faculty Senate. The Technology Review Committee ("Committee") shall be chaired by a faculty member and the majority of members will be faculty members without administrative appointments. The Committee shall review and monitor the activities of the Office of Technology Transfer on matters relating to the administration of this Policy. The Committee shall be consulted in advance concerning any material changes to the Policy and shall participate fully in the future development of the Policy. In addition, the Committee shall approve recommended allocations between the Technology Promotion Fund and the Technology Research Fund.

The Committee serves as an appellate body advisory to the Chancellor in the event a disagreement occurs between Inventors or Creators or between Inventors or Creators and the University concerning the interpretation or application of this Policy. In cases in which the Committee is unable to resolve the disagreement between the parties, the Committee will forward its recommendation for a resolution to the Chancellor for final decision.

At the beginning of each academic year, the Office of Technology Transfer will submit to the Committee, the Provost, and the Vice Chancellor for Health Affairs an annual report of the patent and licensing activities of the preceding twelve (12) months, including an annual accounting statement of income and expenses from Technology in which the University has an interest and an accounting of income and disbursements of the Technology Promotion Fund and

Technology Research Fund. Status reports will be provided at subsequent Committee meetings upon request of the Committee.

C. Disclosures.

Technology created by Vanderbilt faculty, staff, or students with the use of University facilities or funds administered by the University, or within the Inventor's or Creator's scope of employment, shall be disclosed in writing to the Office of Technology Transfer and sent to the Provost or Vice Chancellor for Health Affairs. These disclosures will be maintained in strict confidence.

D. Licensing.

The Inventor or Creator will cooperate with the Office of Technology Transfer in its protection of University interests in disclosed Technology including executing appropriate assignments to perfect legal rights. It is anticipated that the Inventor or Creator will be an active participant in the licensing process and will be consulted prior to licensing decisions.

Inventors or Creators having an interest in a potential licensee may request that the potential licensee be given the right of first negotiation, consistent with University policy on conflicts of interest and any other applicable School or departmental policies, and normally that request will be granted.

If the Office of Technology Transfer, in coordination with the Provost or Vice Chancellor for Health Affairs, determines not to file for a patent or actively pursue the transfer of particular Technology, the University will at the Inventor's or Creator's request assign ownership of the Technology to the Inventor consistent with any existing governmental rights. These decisions normally will be made within one year of the date of disclosure.

IV. INCOME

A. General Principle.

The general principle sought by this Policy is to direct income from income-producing discoveries toward Inventors or Creators, assure the transfer and development of those discoveries for the public benefit, and provide for the funding of future research by faculty of Vanderbilt University.

B. Definition of Terms.

For purposes of this Policy, "income" is defined as royalties or return received from the transfer or licensing of Technology. Net income is defined as the balance of income remaining after the recovery of (1) total University expenses directly related to generating and securing income from a specific Technology, and (2) any special project advance by the School or other organizational unit of the University. These University expenses will consist of expenses such as legal fees; application, issuance, and maintenance fees for patents; legal fees and other direct expenses concerning licensing or transferring that Technology; and direct marketing and patent promotion costs for that Technology. Special project advances from the School or other

organizational unit of the University will be detailed in writing at the time the advance is made. Only net income will be allocated to the Inventors and Schools. Upon request, the Office of Technology Transfer will provide an Inventor or Creator with a listing of expenses incurred to date on his or her Technology.

C. Technology Funds.

A percentage of the net income (see Schedule below) derived from the transfer, licensing, or commercial exploitation of Technology shall be placed in a Technology Promotion Fund that will be used for promotion of specific Technologies.

A percentage of the net income (see Schedule below) derived from the transfer or licensing of Technology that is sufficiently profitable shall be placed in a Technology Research Fund with the Technology Review Committee responsible for proposing an equitable mechanism of peer review for disbursement of these funds.

D. Allocation of Income from Technology.

Net income from the transfer or licensing of Technology will be allocated according to the percentages in the following Schedule. The intent of this Schedule is that small discoveries will primarily aid Inventors and Creators and their research efforts, while large inventions will aid the School proportionally more.

SCHEDULE
Net Income

	Inventor/ Creator	Inventor's Laboratory	Inventor's Department	Inventor's School	Technology Promotion	Technology Research Fund
Non-Medical						
First 100,000 per year	50%	10%*	0%	30%	10%	0%
Above 100,000 per year	40%	10%*	10%	25%	5%	10%
Medical Center						
First 100,000 per year	50%	0%	20%	20%	10%	0%
Above 100,000 per year	40%	0%	25%	20%	5%	10%

*For as long as the inventor remains at Vanderbilt. If the inventor leaves Vanderbilt, the inventor's school share is increased by 10%.

For multiple co-inventors/creators, the shares will be apportioned consistent with this schedule.

The Inventor's or Creator's share shall be paid directly to the Inventor. Funds designated for Departments and Schools are to be used primarily for funding research by the faculty.

In exceptional circumstances with the approval of the appropriate Dean and the Provost or the Vice Chancellor for Health Affairs, the royalty split for Technology may be adjusted subject to negotiations between the University and the Inventor and Creator.

V. THE VANDERBILT RESEARCH & DEVELOPMENT CORPORATION

The Vanderbilt Research & Development Corporation (VRDC), a not-for-profit corporation controlled by Vanderbilt University, was chartered in December 1986 to facilitate patent management and transfer of Technology arising out of research conducted at Vanderbilt. Any income derived from VRDC investment will be distributed according to the provisions of the funding from VRDC.

The VRDC serves as a vehicle to attract and solicit venture capital funds, which may be combined with Vanderbilt University funds, and invested in selected projects with development potential. It is expected that these projects will be in an advanced phase of research. The VRDC does not replace any of the University's processes that play a role in the research or Technology Transfer process.

Projects involving Technology that meet the above criteria should be submitted to VRDC, 102 Alumni Hall.

VI. PATENT AND TRADEMARK DEPOSITORY LIBRARY

Vanderbilt University is designated a Patent and Trademark Depository Library by the Patent and Trademark Office of the United States Department of Commerce. The patent collection is housed in the Stevenson Center Science Library and is readily available for patent and trademark searches.

VII. PERIODIC REVIEW

At least every fourth year the Technology Review Committee shall review the provisions of this Policy and their efficacy in meeting the interests of members of the University community and the University.