

GUIDELINES ON INTERACTIONS WITH INDUSTRY

SUMMARY

The following are intended to provide flexible, reasonable, principles and parameters to guide the University's interactions with industry.

Monitoring Activity

The University should develop a statement that requires the submission of all externally-sponsored proposals and resulting contracts, grants, and other forms of agreement, excepting only faculty consulting arrangements and unrestricted gifts and bequests, through the Office of Research and Technology Transfer Administration, for its prompt review, following departmental and collegiate review and approval.

Openness of Research

A. Research conducted by faculty under industry sponsorship must maintain the University's open teaching and research environment and adhere to the University's policy prohibiting secrecy in research. The University and its faculty must not enter relations with industry resulting in situations tending to stifle the willingness of those involved to discuss the research openly.

B. Departmental chairs, directors, deans, and the administration, must review any new, proposed, or on-going faculty-industry interactions which might compromise the University's open teaching and research environment. Those in the line of reviewing University-industry relationships--department chairs, directors, deans and those in the Office of Research and Technology Transfer Administration--should investigate and seek to resolve all potential problems. Concerns regarding violation of these guidelines should be brought to the attention of the appropriate administrative entity for resolution.

C. Faculty must have the right to disseminate their research results. The University prohibits sponsors from abridging this basic right. However, the University and faculty may accept reasonable delays in publication, to enable sponsors or the University to review for proprietary or patent protection. Such reasonable delays customarily are limited to ninety (90) days, with flexibility to extend if circumstances warrant and if the Office of Research and Technology Transfer Administration, the faculty member/s involved, and the industrial sponsors all agree.

D. Faculty must formally inform civil service employees and students involved in industry-sponsored projects of all contract and grant terms affecting them, including any delays in publication owing to sponsor prior review of manuscripts and any obligations of confidentiality.

Appropriateness of Research

A. Since the integrity and scientific excellence of principal investigators, departmental chairs or directors, and deans ultimately safeguard the quality and relevance of all research and graduate training, all three, and personnel in the Office of Research and Technology Transfer Administration, must promptly review all industrial proposals, new or renewal. In the absence of external peer review, such internal review must ensure that all industrial contracts and grants, or other forms of relationships, conform to departmental and collegiate missions and maintain the breadth and quality of research creditable to the University. Questions regarding the appropriateness of industrial contracts and grants, or other forms of relationships, that cannot be resolved at the departmental or collegiate level could be reviewed by the Senate Committee on Research, ad hoc groups, or other forms as appropriate.

B. As part of its research, training, and public service missions, the University encourages faculty-industry interactions that enable faculty to pursue projects within their fields of interest and in keeping with their departmental and collegiate missions. Faculty have the freedom to undertake research, training, or public service, projects and to seek sponsorship of their liking, and must not be influenced in any way to accept either not of their own choosing.

### Conflicts of Interest - Faculty

- 1) When accepting support from industrial sponsors, faculty must disclose all significant, directly related commercial connections and financial interests in such sponsors. In addition, in situations where faculty's immediate family have such commercial connections and financial interests, disclosure must also be made. The Office of Research and Technology Transfer Administration will revise the University BA #23 form to facilitate such disclosures.
- 2) As faculty-industry relationships increase with a growing desire for consultantships, faculty must continue to observe the University consulting policy.
- 3) Departmental chairs or directors, deans, and the Office of Research and Technology Transfer Administration must review and resolve any faculty conflicts of interest or conflicts of commitment.
- 4) The University should consider developing a formal conflicts of interest policy, utilizing these recommendations and others, to cover additional circumstances.

### Conflicts of Interests - University

1. Where appropriate, the University may accept equity in companies as complete or partial payment for transferring University discoveries to such companies.
2. The University may designate an individual to hold membership on the board of directors of a company in which the University holds equity, and accordingly such individual must respect the obligations of a board member of that company.
3. Department chairs, directors, deans, and members of the University's central administration holding such membership shall absent themselves from all financial and other decisions that could influence the University's relations with such companies.
4. Where the University's direct financial involvement in a company would be considered a conflict, but where the University should maintain an interest in a company, utilization of an organization that would put the University in an "arm's length" relationship with the company should be considered. Such an organization might include the University of Minnesota Foundation, a separate University research foundation or institute.
5. When external entities raise funds for University research through offerings that solicit memberships, partnership shares, or equity positions, from members of the public, the University and faculty must scrupulously avoid the endorsement of any such offering and statement of potential research results. The University's prior written consent must be obtained to use its name in any way for advertising purposes.

### Commitments of University Equipment and Personnel

- A. When allowing industry to utilize University facilities, the University shall make certain that industry indemnifies the University for all liabilities arising from such use; that industry pays full costs incurred; and that such use does not interfere with University research, training, or public service programs.
- B. The University will not knowingly compete with local private industry providing services similar to the University's.

### Indirect Costs

The University should develop fair, flexible, operating practices that seek to recover full indirect costs but which recognize countervailing factors.

### Transfer of Rights in Discoveries

The patent policy should be reviewed to ensure that it is comprehensive in scope and encompassing all discoveries, fair to the University, its inventors, and industry recipients of the discoveries, and flexible enough to meet the varying needs of the University, its faculty, and industry.

## GUIDELINES ON INTERACTIONS WITH INDUSTRY

### Preamble.

On September 10, 1982, the Board of Regents directed the administration to develop guidelines governing University-industry relationships. Industry has long supported the University's teaching, research, and service missions, especially in chemistry, engineering, agriculture, and medicine. The importance of this support was reflected in the Board of Regents' mandate which recognized:

- closer cooperation between the University and the industrial sector can lead to more effective application of new knowledge and new technology for the benefit of society,
- collaboration with industry increases the likelihood that educational and research activities at the University will reflect current societal needs,
- the transfer and development of new knowledge and new inventions through licensing and other agreements can generate income which can preserve and enhance the quality of education at the University, and
- all agreements and activities in which the University participates must preserve its independence and reflect its mission as a land-grant institution devoted to teaching, research and service.

Further, the Board of Regents' mandate directed that the guidelines should deal with at least the following issues:

1. Appropriate research activities. In this regard, the policy should insure that research activities are consistent in quality, breadth, and importance with the aim of the institution to be at the forefront of research in each of its fields and that the research is integrated with and supportive of the educational mission of the University.

2. Openness of research. Any of the contractual relationships allowed should conform to the provisions of the University Senate policy limiting secrecy in research.
3. Commitment of University resources, space, and personnel. The policy should insure that no single arrangement or project involve the commitment of so large a fraction of any unit's space, equipment, or faculty that an appropriate balance of other activities within the unit cannot be maintained.
4. Assignment of patent rights and licenses and other approaches to technology transfer. While the policy may well provide for a variety of different mechanisms by which the inventions, discoveries, and development of the faculty may be assigned to companies in the private sector, each of these should meet the criterion that it optimizes the likelihood that the citizens of the state and nation will benefit from the advance in knowledge involved.
5. Financial involvement ~~with~~ of the University with any company. Where the agreement between a company and the University involves the transfer of stock or other equity to the University, the policy should set limits to the relationship that are consistent with those established for the University's investment funds. If it is impractical or inadvisable to adhere to these limits, the policy should provide for alternative "arm's-length" arrangements.
6. Financial interests of individual investigators where income to the University is in the form of royalties, the proportionate share allocated to faculty inventors is defined by the Patent Policy. The proposed policy should set guidelines for sharing other forms of income or equity in a

manner consistent with the intent of the Patent Policy. In addition, before the University enters an agreement with a company, the faculty member to be involved should be required to report all other financial interests in and arrangements with the company and guidelines should be established on the maximum allowable extent of such interests and arrangements.

To ensure the quality and breadth of research characteristic of the University, such policy must reflect foremost the underlying philosophy that: all University activities must support its teaching, research, and public service missions; the University must maintain its independence and integrity to assure impartiality; the University environment must allow faculty and students to pursue learning and research freely; and the University must retain the public's trust.

The University and the business community have collaborated on many important programs of mutual benefit to the University's research, teaching, and public service missions. Examples of these relationships are as follows:

- a. Contracts, grants, and gifts (including endowed chairs) to schools, colleges, and departments;
- b. Faculty consulting;
- c. Industrial professionals appointed as adjunct professors;
- d. University-industry exchange programs and student internships;
- e. Specialized Continuing Education and Extension programs for professionals;
- f. Postdoctoral programs for industrial scientists, to redirect, update, or broaden their research or knowledge;

- g. Industry's participation on academic advisory groups;
- h. Industry-associates programs;
- i. Cooperative research projects, some involving government participation, including the activities of the Agricultural Experiment Station;
- j. Use of University facilities on a fee-for-service basis for industrial testing or demonstration;
- k. Equipment, or access to it, provided to the University free, or at minimal cost;
- l. Continuing education activities associated with the various colleges, the Agricultural Experiment Station, ~~Agricultural~~ Minnesota Extension Service, and through Continuing Education and Extension;
- m. Patenting and licensing faculty inventions to interested companies; and
- n. Joint ventures with individual firms, which encourage technological development and may provide new sources of University support.

These diverse relationships benefit industry, students, faculty, the University, and the public; the proposed guidelines must encompass them all. The committee did not feel that exacting policy could be formulated for all circumstances. In some cases, therefore, we shall recommend policy; in others further study, review of policies and procedures, and action by other committees are suggested.

Currently, universities customarily use the term "industry" in the generic sense, to encompass their relations with all facets of the private sector. Throughout these Guidelines, therefore, the term "industry" is not used in any restrictive sense, but rather applies generally to all private enterprise:

whether entirely separate from the University; companies involving University faculty, spun off from faculty research; or University stand-alongside companies, such as R.E.I.

Likewise, these Guidelines are not intended to apply solely to research or technology transfer. In addition to those areas, these Guidelines are intended also to encompass the University's relations with the private sector in all forms of training and/or public service activities.

On a nationwide basis, and at the University of Minnesota, University-industry relationships are increasing in size, volume, and complexity, as each party more fully appreciates the benefits resulting from closer association with the other. Since the objectives and interests that validly serve industry and the University are not always the same, it is important that guidelines be established to provide reasonable principles and parameters within which the University and industry may undertake a multiplicity of arrangements.

University-industry relations constitute a complex network of interactions. These interactions have directed attention to potential conflicts of values and interests between industry and academia and facing individuals serving both. As a result, there has been much attention nationwide to such potential conflicts. It is neither possible nor advisable to establish rigid rules governing these relations. Nevertheless, the University, while striving to promote research internally and to transfer technology externally, must safeguard against the use of public funds for private gain, avoid faculty or institutional conflicts of interest, and prevent violation of the tenets of fundamental fairness. Therefore, what follows are reasonable guidelines--some wide, some narrow--for University faculty, administrators, and industrial sponsors. In most cases throughout these Guidelines the term "faculty" is used, primarily because

faculty are most often involved in the activities involving these Guidelines.  
However, as appropriate they also apply to all other types of University  
employees, student and non-student, academic and civil service. Likewise, all  
of these Guidelines are intended to apply to the University's relations with all  
forms of private enterprises generally: entities big or small, start-up or  
established and ongoing, independent and/or portions of larger entities; whether  
proprietorships, partnerships of any variety, corporations, or other forms of  
business organization; regardless where they are located geographically; whether  
entirely separate from the University; companies involving University faculty,  
spun off from faculty research; or University stand-alongside companies, such as  
R.E.I.

This report formulates guidelines to govern University-industry relations in the following important areas, involving research conducted by University personnel. Other guidelines may emerge as these relationships develop, to be dealt with as appropriate.

- I. Monitoring Activity
- II. Openness of Research
- III. Appropriateness of Research
- IV. Conflicts of Interests
  - A. Faculty
  - B. University
- V. Commitments of University Equipment and Personnel
- VI. Indirect Costs
- VII. Transfer of Rights in Discoveries

## I. Monitoring Activity

Externally sponsored projects are usually channeled through the Office of Research and Technology Transfer Administration. However, in some instances such awards are received by other University units. The University has no system to monitor all externally-sponsored programs or funds. An effective University-industry relations policy, however, requires the University to have knowledge of all faculty-industry relations utilizing University personnel, space, and facilities, to properly report faculty activities to the Regents and the public, to maximize University patent potential, to ensure proper patent ownership, and to avoid financial accountability problems. Moreover, programs must be reviewed for conformity to departmental and collegiate missions, for adequate space and facilities, for acceptable terms and financial provisions, and to ascertain that all institutional and extramural requirements are met-- e.g. governing the use of potentially harmful substances, human subjects and warm-blooded animals in research, and regulating recombinant DNA research.

### Recommendation I

The University should develop a statement that requires the submission of all externally-sponsored proposals and resulting contracts, ~~and~~ grants, and other forms of agreement, excepting only faculty consulting arrangements and unrestricted gifts and bequests, through the Office of Research and Technology Transfer Administration, for its prompt review of the issues stated above, following departmental and collegiate review and approval.

## II. Openness of Research

The traditions of free exchange of ideas and prompt dissemination of knowledge are fundamental to the University's mission and must govern all research activities conducted by University personnel. The University is committed to an open teaching and research environment, which ensures free faculty and student exchange of ideas, thereby contributing to the advancement of knowledge in all disciplines. The University's policy prohibiting secrecy in research, which the Office of Research and Technology Transfer Administration monitors, serves the University well. The acceptance of industrial support must not give rise to situations curtailing open discussion regarding the research among colleagues and students or violating the existing secrecy in research policy.

Industry, on the other hand, may require a period of confidentiality for its proprietary information provided to the University or for patent purposes, and may seek prior review of publications resulting from its sponsorship. This is acceptable, to protect such proprietary information and to enable sponsors or the University to file patent applications. However, the decisions to patent and to file the patent application must both be made as expeditiously as possible, to avoid undue delays in publication. This period of confidentiality shall in no way affect or limit the oral defense of theses. Commitment to knowledge development and dissemination requires all University-industry relationships to adhere to this guideline in order to assure and maintain the University's open teaching and research environment.

### Recommendation II

A. Research conducted by faculty under industry sponsorship must maintain the University's open teaching and research environment and adhere to the

University's policy prohibiting secrecy in research. The University and its faculty must not enter relations with industry resulting in situations tending to stifle the willingness of those involved to discuss the research openly.

B. Departmental chairs, directors, deans, and the administration, must review any new, proposed, or on-going faculty-industry interactions which might compromise the University's open teaching and research environment. Those in the line of reviewing University-industry relationships--department chairs, directors, deans and those in the Office of Research and Technology Transfer Administration--should investigate and seek to resolve all potential problems. Concerns regarding violation of these guidelines should be brought to the attention of the appropriate administrative entity for resolution.

C. Faculty must have the right to disseminate their research results. The University prohibits sponsors from abridging this basic right. However, the University and faculty may accept reasonable delays in publication, to enable sponsors or the University to review for proprietary or patent protection. Such reasonable delays customarily are limited to ninety (90) days, with flexibility to extend if circumstances warrant and if the Office of Research and Technology Transfer Administration, the faculty member/s involved, and the industrial sponsors all agree. ~~The Office of Research and Technology Transfer Administration must review requests for excessive delays, which must be fully justified and are acceptable only in extenuating circumstances.~~

D. Faculty ~~should~~ must formally inform civil service employees and students involved in industry-sponsored projects of all contract and grant terms affecting them, including any delays in publication owing to sponsor prior review of manuscripts and any obligations of confidentiality.

### III. Appropriateness of Research

The Board of Regents' mandate recognizes that:

all agreements and activities in which the University participates must preserve its independence and reflect its mission as a land-grant institution devoted to teaching, research and service.

In this regard, it continues, all research activities must be:

consistent in quality, breadth, and importance with the aim of the institution to be at the forefront of research in each of its fields and that the research is integrated with and supportive of the educational mission of the University.

Research is basic to the University's teaching and service missions. Good teaching and learning depend ultimately upon research. Likewise, through research the University's resources can best be brought to bear on public issues requiring objective, systematic, study. Research forms a part of departmental and collegiate missions and brings recognition to the University and its faculty. All forms of research, which are within departmental and collegiate missions, and which maintain the high quality characteristic of the University, are appropriate to the University's open environment.

Industry-supported research is a legitimate academic endeavor. On a nationwide basis, research universities are actively seeking to strengthen their relations with industry. The University views this interaction as important and is also seeking to do so. Government and industry alike support both basic and applied research. Since research ranges over a wide spectrum, distinctions between the two are often arbitrary; both can train students in the scientific method.

Industrial support should complement on-going faculty research initiatives as well as provide additional opportunities for graduate training. Because industry has pioneered many new scientific areas, collaboration with industry can challenge faculty, enrich graduate training, and open options for students' future employment.

Problems, however, may arise in University-industry relations, such as the possibility of industrial sponsors directing research to meet their short-term needs and objectives. Prospects of financial gain could influence faculty and the University to choose the more commercially imminent, product-oriented, research problems, rather than those fulfilling the University's objectives of training graduate students and advancing more basic knowledge. Such problems could affect the quality and breadth of University research, bias graduate student training, cause favoritism, and undermine professor-student relationships. ~~Although they are unlikely to be proposed, arrangements solely benefiting industry and having little prospect for graduate training or publication, are normally outside the acceptable scope of University-industry interactions.~~

On federally-sponsored projects academia customarily prevents such problems by the established peer review system of evaluating research proposals. In addition, University department chairs, directors, deans, and the Office of Research and Technology Transfer Administration all review external funding proposals. Although an established peer review system is not typically utilized by industrial sponsors, a considerable number of University-industry relations are initiated by faculty proposals, which oftentimes complement federal projects. Nevertheless, to make certain that research conducted for industrial sponsors is appropriate to the University's mission, the University's customary internal review of industry-sponsored projects must be especially thorough in the absence of peer review.

### Recomendation III

A. Since the integrity and scientific excellence of principal investigators, departmental chairs or directors, and deans ultimately safeguard the quality and relevance of all research and graduate training, all three, and personnel in the Office of Research and Technology Transfer Administration, must promptly review all industrial proposals, contracts and grants, whether proposed, new or renewal. on-going. In the absence of external peer review, such internal review must ensure that all industrial contracts and grants, or other forms of relationships, conform to departmental and collegiate missions and maintain the breadth and quality of research creditable to the University. Questions regarding the appropriateness of industrial contracts and grants, or other forms of relationships, that cannot be resolved at the departmental or collegiate level could be reviewed by the Senate Committee on Research, ad hoc groups, or other forms as appropriate.

B. As part of its research, training, and public service missions, the University encourages faculty-industry interactions that enable faculty to pursue ~~research~~ projects within their fields of interest and in keeping with their departmental and collegiate missions. Faculty have the freedom to undertake research, training, or public service, projects and to seek sponsorship of their liking, and must not be influenced in any way to accept either not of their own choosing.

#### IV. Conflicts of Interest

##### A. Faculty.

The assumption that faculty will devote their time and effort to the University's mission in proportion to their appointments--that full-time appointment connotes full-time commitment--is inherent in University employment. The University, however, encourages faculty to pursue outside professional activities, with or without compensation, including interactions with industry, which will enrich their academic contributions, provided that such activities and financial interests do not interfere with their University commitments. When they interfere, conflicts of interest can arise. Faculty must be sensitive that interactions with industry could cause conflicts of interests, or at least their appearance, and must ensure that University work furthers its missions and is not merely an extension of industrial interests. Since industry's research activities are richly varied, however, consulting with industry can expose faculty to problems and perspectives novel to academia, which may enrich faculty teaching and research backgrounds. As faculty-industry relationships increase with increasing opportunities for consulting, faculty must observe the existing University consulting policy. Policy on Outside Consulting, Service Activities, and Other Outside Work, in all respects.

Conflicts could be either conflicts of interest--situations in which faculty may influence the University's business decisions for their or their associates' gain--or conflicts of commitment--situations in which activities, acceptable in themselves, appear to or interfere with the faculty's paramount obligations to the University. Either kind of conflict is undesirable, since it jeopardizes the faculty's and the University's objective integrity, essential to maintaining the public's trust.

Conflicts characteristically may arise in the following situations:

- 1) If faculty and/or their immediate families in the aggregate own or have options to purchase 5% significant amounts of voting stock in companies with which the faculty have University research projects.
- 2) If faculty or their immediate families hold positions as operational officers in companies with which the faculty have University research projects.
- 3) If faculty have on-going private consulting arrangements with the same companies with which they have University research projects, if they relate to the same subject matter.

In the above situations the possibilities for personal gain for the faculty or their immediate families are judged to be so significant that it is unreasonable to expect the faculty to exercise the objectivity necessary to the University's public trust.

Academia customarily minimizes the potential for faculty conflicts of interest by limiting time devoted to outside activities and requiring disclosure of consulting. With increasing University-industry interactions, it is necessary to ensure that conflicts do not arise when accepting industrial awards. Accordingly, the University should adopt a requirement that faculty should identify and report to the appropriate administrative entity the potential for real or perceived conflicts which can result from their relations with industry, so that problems may be avoided. Such disclosures, although necessary, will not and should not, ipso facto, prevent such arrangements. Personal discretion or informal administrative adjustments resolve most potential conflicts. In some instances reducing the percentage of faculty appointments, or granting leaves of

absence, to reflect the faculty's respective commitments to the University and to industry, may be appropriate.

#### Recommendation IV. A. Faculty

- 1) When accepting support from industrial sponsors, faculty must disclose all significant, directly related commercial connections and financial interests in such sponsors. In addition, in situations where faculty's immediate family have such commercial connections and financial interests, disclosure must also be made. The Office of Research and Technology Transfer Administration will revise the University BA #23 form to facilitate such disclosures.
- 2) As faculty-industry relationships increase with a growing desire for consultantships, faculty must continue to observe the University consulting policy.
- 3) Departmental chairs or directors, deans, and the Office of Research and Technology Transfer Administration must review and resolve any faculty conflicts of interest or conflicts of commitment.
- 4) The University should consider developing a formal conflicts of interest policy, utilizing these recommendations and others, that go beyond the mandate of this committee, to cover additional circumstances. Relevant materials from Harvard, Johns Hopkins, and Michigan State are attached.

#### B. University.

University research has resulted in the creation of new Minnesota businesses, which have transferred research results into products and services which have contributed to the State's economy. Certain research discoveries lend themselves to commercialization by starting new ventures rather than the traditional licensing to existing companies. Moreover, this means of commercializing dis-

coveries may be the best, or in some instances the only, means to transfer such new technology. The University recognizes this as an acceptable method of commercializing discoveries, when it is in the best interests of the University, the State, the inventor, and is the most effective means to transfer such technology.

In establishing such new companies, the University may accept equity positions or combinations of equity and future royalties in return for licensing the discovery. This is an acceptable University activity and is an integral part of the technology transfer program. However, in such situations reasonable limits on the University's involvement with respect to administrative time and the amount of equity taken must be observed. This will enable the University to be aware of and take steps to prevent potential conflicts of interest which may arise, involving, inter alia, favoritism in future dealings with the same company, discrimination against its competitors, or the use of public funds for private gain. Accordingly, University direction of the company must be limited in time, and the amount of equity taken must be less than controlling.

Conflict situations also apply to any profit or nonprofit stand-alongside private entities established by the University, such as Research Equipment Incorporated. Therefore, in the University's relations with all such entities the conflict guidelines must be followed, and the other guidelines contained in this document must likewise apply.

Equity positions may entitle the University to membership on the companies' Boards of Directors. Such positions are positive from the University's perspective, since board members can look after the University's interests in company management. However, increased possibilities for conflicts of interest are inherent in such membership. Board members who are University administrators,

involved in internal decisions regarding personnel, budgeting, contract negotiations, and the like, may be in positions to direct University research to benefit the companies, causing problems of favoritism, discrimination, and improper use of public funds for private gain. In addition, board members are exposed to internal confidential matters of their companies, and their company obligations may, therefore, conflict with their obligations to the University. Although accepting membership on companies' Boards of Directors may be acceptable, the University must attempt to prevent conflicts from arising.

Where faculty inventions are transferred in return for an equity position, or research is to be performed in exchange for an equity position, the affected ~~faculty~~ University employees must be fully apprised of the negotiations, and a suitable arrangement that reflects the Regents' Patent Policy must be concluded, both with the faculty and with the industry sponsor, that provides for the faculty inventor to share in any consideration received by the University in accordance with established practices.

In recent years, because of federal tax law changes, for-profit entities have been formed specifically to fund research and development--e.g., research and development limited partnerships. Such entities solicit memberships, partnership shares, or equity positions, from members of the public. There is the possibility that prospective investors may be induced to invest by what appears to be University involvement in the funding entity or by unrealistic expectations of the outcome of the research. In either event, the name of the University could be unfairly traded upon. Therefore, care must be taken that the promotion of the solicitation is consistent with the potential outcome of the research and the policy on the use of the University's name. Additionally, a suitable means of bringing the research to a position where it can benefit society must be ensured.

#### Recommendation IV. B. University

1. Where appropriate, the University may accept equity in companies as complete or partial payment for transferring University discoveries to such companies.
2. The University may designate an individual to hold membership on the board of directors of a company in which the University holds equity, and accordingly such individual must respect the obligations of a board member of that company.
3. Department chairs, directors, deans, and members of the University's central administration holding such membership shall absent themselves from all financial and other decisions that could ~~impact~~ influence the University's relations with such companies.
4. Where the University's direct financial involvement in a company would be considered a conflict, but where the University should maintain an interest in a company, utilization of an organization that would put the University in an "arm's length" relationship with the company should be considered. Such an organization might include the University of Minnesota Foundation, a separate University research foundation or institute, or the University's for-profit Research Equipment Incorporated.
5. When external entities raise funds for University research through offerings that solicit memberships, partnership shares, or equity positions, from members of the public, the University and faculty must scrupulously avoid the endorsement of any such offering and statement of potential research results. The University's prior written consent must be obtained to use its name in any way for advertising purposes.

## V. Commitments of University Equipment, Facilities, and Personnel

Company access to specialized University equipment, facilities, and trained personnel, acquired to further the teaching, research, and public service missions, may form the basis of University-industry relationships, much as faculty seek access to complementary industrial facilities. Industry's use of University facilities and personnel, whether for research or for routine testing on a fee-for-service basis, is mutually advantageous. Access to sophisticated or unique University facilities for research or product development benefits companies of every size. The University benefits from full utilization of its facilities, resulting revenues, and increased opportunities to train students. Since facilities are limited and are dedicated to all University missions, however, uses furthering these missions shall have priority. Depending upon availability, use by external sponsors is appropriate. Likewise, because of the University's tax-exempt status, the University should not knowingly compete with local private industry providing similar services.

### Recomendation V

- A. When allowing industry to utilize University facilities, the University shall make certain that industry indemnifies the University for all liabilities arising from such use; that industry pays full costs incurred; and that such use does not interfere with University research, training, or public service programs.
- B. The University will not knowingly compete with local private industry providing services similar to the University's.

## VI. Indirect Costs

Externally-sponsored programs incur two types of expenses: those directly allocable to individual projects, and indirect costs, for operation, maintenance, and utilization of equipment and buildings, and for administration, spread over all sponsored programs. The University recovers indirect costs from projects as a percentage of direct costs, calculated according to Federal regulations.

The matter of indirect costs is a troublesome area for companies of all sizes, but more so for small and medium-sized companies, new start-up companies, or funding from a division of a large company. In the past there have been a few instances where contracts have not been finalized, and in several instances contracts have circumvented proper University review, owing to the issue of indirect costs.

Although the University must strive to collect full indirect costs, they can jeopardize obtaining awards. Therefore, the needs of the research must be considered paramount. The fact of the matter is that many projects from industrial sponsors will arbitrarily limit indirect costs. It must be recognized that other universities may accept awards with varying indirect cost rates. Accordingly, the committee feels that a rigid policy cannot be adopted, and therefore that the University should take into consideration the value of the research project and of graduate training, the precedent-setting nature of such action, and the financial implications in finally accepting or rejecting such sponsorship.

The committee recognizes the problems involved--that the Federal Government pays full indirect costs, but other agencies, such as foundations, voluntary associations, and industry, do not. Therefore, the University should operate in a

manner of reasonable fairness, which would balance the value of training graduate students, transferring technology, and promoting research, against the financial consequences of not fully recovering indirect costs.

#### Recommendation VI

The University should examine this area further and develop fair, flexible, operating practices that seek to recover full indirect costs but which recognize countervailing factors which have been discussed above.

#### VII - Transfer of Rights in Discoveries

The Regents' patent policy extends to all discoveries, including those that are patentable, those that are subject to copyright, such as computer programs, and those discoveries that are neither patentable nor copyrightable, such as some biological organisms and some chemicals. Transfer of rights in and commercialization of such discoveries whether by license, assignment, or sale, can further the mission of the University by making the discoveries available to the general public, by bringing recognition to the University and faculty, and by providing research funds to the University which strengthen its research and teaching roles. Such transfer of technology is encouraged.

To facilitate this, the University patent policy should meet the following objectives: 1) facilitating prompt and effective development of inventions; 2) obtaining revenue from licensing patents; 3) preventing inappropriate use of public funds for private gain; 4) maintaining good relations with industry to maximize opportunities for education and research funding; and 5) compensating and stimulating inventors.

The perceived objectives of the University and industry in such transfers are not always complementary. The areas that most frequently give rise to differen-

ces include the exclusivity of the transfers, compensation for the transfer, and confidentiality of information. Industry frequently desires a transfer that provides an exclusive transfer of rights. Many University discoveries, especially those originating in the more basic research programs, are at a very early stage of development when transferred to industry and require a great deal of additional innovative development work before they become commercially viable. To justify the investment required for such development, industry desires a transfer that affords it an exclusive right to the technology. Although it is desirable to transfer technology on a nonexclusive basis whenever possible, the University recognizes that exclusivity may be necessary as the incentive required to getting the discovery into commercial use. Accordingly, a transfer of exclusive rights may be made and is desirable where industry agrees to exercise due diligence in bringing the discovery to commercial use. Additionally, it may be necessary to limit the period of exclusivity or to provide the exclusivity in a limited field of use.

In some situations, there are valid business reasons to transfer title to the discovery to industry by assignment as opposed to a license of such discovery. For example, the sponsor may have already developed substantial background in the field. Such a transfer is possible where the University has unencumbered title to the discovery, where it will prove to be mutually beneficial to the University and the industry, and where the University receives adequate compensation. In such a transfer, and where an exclusive license is involved, provisions must be included to allow for reversion of rights to the University in the event the terms of the contract are not fulfilled by the industry party.

The University feels strongly that it and its faculty should share financially in the fruits of its research. The University is an entity that is unique in its

ability to attract individuals of great talent and expertise to its staff. Additionally, it has resources in research equipment frequently unmatched in industry. An industrial sponsor of research can realize benefits from the research far in excess of the cost of the research due to the expertise and sophisticated equipment that can be brought to bear in a particular area. Further, the prospect of shared revenue from a discovery for an investigator is an incentive to disclose discoveries. The University's share of such revenue strengthens the research capability of the University, stimulates graduate and undergraduate training, and furthers all the University's missions. Accordingly, in order to accomplish the above, the University and industry sponsors should negotiate arrangements that fairly compensate the University for discoveries. Only where the value of stimulating research, promoting graduate training, and advancing the University's other missions clearly exceeds the financial consequences of not obtaining compensation should the University accept industry sponsored research in which the University and investigators do not share in the benefits of the research.

Industry typically treats the products of its research in a very confidential manner. On occasion, industry expects the University to maintain the same degree of confidentiality with sponsored research. It is important to note that openness, freedom of discussion, and freedom to publish go to the very core of the University system. Nonetheless, there are certain legitimate needs for confidentiality on the part of industry that must be met by the University. Data received from an industry sponsor and marked "confidential" may be kept in a confidential status for a stated period of time. This period can run from as little as one year up to five years. Periods beyond this should be avoided. Also, it is prudent to recognize the need to maintain the confidential status of the results of the research for a period of time sufficient to determine patentability and filing of patent applications.

Faculty, as principal investigators on industry-sponsored research, ~~should~~ must ensure that all individuals that will be assisting in the research are informed of the agreement with the industry sponsor and are aware of the various provisions affecting them.

#### Recomendation VII

The patent policy should be reviewed to ensure that it is consistent with the above, particularly being comprehensive in scope and encompassing all discoveries, fair to the University, its inventors, and industry recipients of the discoveries, and flexible enough to meet the varying needs of the University, its faculty, and industry.

Followed in a cooperative spirit, the principles of reasonable fairness which these Guidelines contain will serve both the University and industry well and will enable the University to forge ahead in serving the State and its economy, while retaining the public's trust.