NATIONAL COUNCIL OF UNIVERSITY RESEARCH ADMINISTRATORS

# Introduction to

# UNIVERSITY PATENT POLICIES AND PRACTICES

Workshop Materials - NCURA Intellectual Property Series - 1984

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Introduction to

UNIVERSTIY PATENT POLICIES AND PRACTICES

This paper is one unit in a series prepared by the sponsored program and patent offices at M.I.T. for use in their own professional development program and in the workshop on intellectual property at the 1984 NCURA annual meeting. The NCURA Committee on Professional Development is making it available to NCURA members who need a basic understanding of intellectual property in connection with the negotiation and administration of sponsored research agreements.

Copies of this and other units in the series may be obtained from NCURA Headquarters.

## Other Guidance

This series is intended to provide university research administrators with only an introduction to the basic concepts of intellectual property. Those who require a more complete understanding of the subject will wish to study other materials cited herein or developed from time to time by such organizations as the Society of University Patent Administrators, the Licensing Executives Society, the COGR Committee on Patents, Copyrights and Rights in Data, and the National Association of College and University Attorneys.

## User Feedback

This material is intended to be self-improving. Users are, therefore, invited to forward comments, suggestions and new materials for the next revision to:

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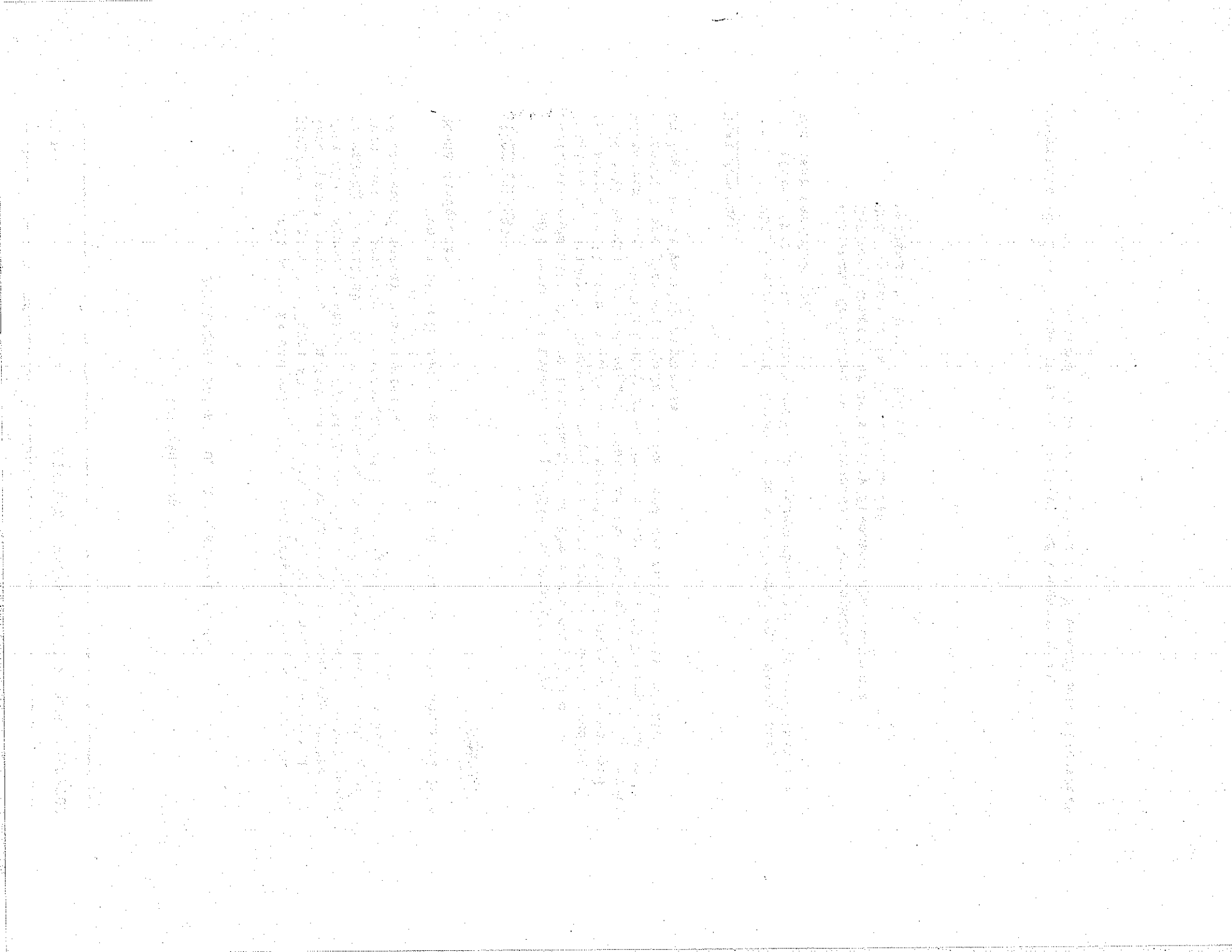

Introduction to

# UNIVERSITY PATENT POLICIES AND PRACTICES

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## Appendices

# 1. INTRODUCTION

A number of professional organizations and groups have prepared materials relating to university patent policies and practices.

One useful source is "Patents at Colleges and Universities," Chapter 2:6:1 in the Administrative Service/Supplement published by the National Association of College and University Business Officers. First issued in March 1978, that chapter is currently being revised by the Committee on Patents, Copyrights and Rights in Data of the Council on Governmental Relations (COGR) and may be available for distribution this fall. In the meantime, much of the earlier version is still relevant as it relates to the elements of university policies and to patent administration and is quoted in Parts 2, 3, 4 and 6 of this paper, with permission of NACUBO, the copyright holder.

Similarly, "Survey of Institutional Patent Policies and Patent Administration," Chapter 2:6:2 of the same NACUBO publication, although issued also in March 1978, still provides a feeling for the wide variety in institutional patent policies, organization and administration. It is, therefore, included as Appendix 1 to this paper. We understand that the survey, conducted by the Society of University Patent Administrators, is currently being conducted again by SUPA. When available, hopefully this fall, it will provide a useful comparison with the 1978 results.

## 2. PATENT POLICY OBJECTIVES

In the paper entitled "Patents and Patent Law" in this NCURA series, we noted the Constitutional origin of the United States patent system, and in the paper entitled "Patent Rights under Government Contracts" we noted that the objectives of 35 U.S.C. Chaper 38 include the greater utilization, commercialization and public availability of inventions and increased collaboration between commercial firms and nonprofit organizations.

In pursuing these broad constitutional and legislative goals, colleges and universities frequently state their patent policy objectives in terms such as those set forth in NACUBO 2:6:1:

"1. To facilitate the transfer of technology and the utilization of findings of scientific research in order to provide maximum benefit to the public therefrom.

"2. To encourage research, scholarship, and a spirit of inquiry, thereby generating new knowledge.

"3. To provide machinery by which the significance of discoveries may be determined so that the commercially meritorious may be brought to the point of public utilization.

"4. To assist in an equitable disposition of interests in inventions among the inventor, the institution, and, when applicable, a sponsor.

"5. To provide individual incentives to inventors in the form of personal development, professional recognition,and financial compensation.

"6. To assist in the fulfillment of the terms of research grants and contracts.

"7. To safeguard the intellectual property represented by worthwhile inventions so that it may receive adequate patent protection.

"8. To facilitate the development of institutional patent agreements with the federal government."

With the passage of Public Law 96-517 and Chapter 38, which eliminates the need for institutional patent agreements, and with the growing interaction of universities and industrial organizations, the following objectives are more likely to be substituted for 8. above:

To comply with applicable federal law and regulations when the institution accepts federal funds for research.

To facilitate the development of research agreements with industrial sponsors.

## 3. ELEMENTS OF AN INSTITUTIONAL PATENT POLICY

In order to deal with discoveries that may have patentable significance, an institution should have a documented patent policy approved by its governing board, which defines the rights and obligations of the institution, the inventor, and, when applicable, research sponsors. Such a policy should contain the elements described below in the language of NACUBO 2:6:1.

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ELEMENTS OF AN INSTITUTIONAL PATENT POLICY (NACUBO)

An institution seeking to establish or clarify its position regarding rights to and disposition of patentable inventons should develop a statement of patent policy. The statement should be broad enough to encompass all foreseeable patent situations, yet specific enough to allow administraton of the policy without frequent recourse to policy deliberations by an advisory committee.

The statement should briefly define the administrative structure for processing a patentable discovery and it should be directly and succinctly presented for clear understanding by lay persons in the field. The basic purpose of a patent policy is to define the rights and obligations of both the inventor and the institution as regards patent matters. To the extent that policies on consulting deal with patents, it is advisable to take them into account when formulating a patent policy.

Some institutional patent policies are incorporated into patent manuals that provide the reader with a brief orientation on patent matters. These publications can be helpful to neophyte inventors, but they should be prepared such that the institutional policy is clearly distinguishable from general instructional materials.

The following topics typically are found in institutional patent policies:

1. Preamble.
2. Applicability of the policy.
3. Establishment of the inventor commitment.
4. Rights of the parties.
5. Income-sharing arrangements.
6. Administrative arrangements.

### Preamble

Although optional, this section is recommended. It should relate the basic purposes of the institution, its obligations to the public, and the scholarly aims of its faculty to the institution's interest in patents and ways in which patents serve these ends. The preamble should be kept short and to the point and establish a sound foundation for what is to follow.

## Applicability of the Policy

This section defines research situations, sources of funds, all categories of persons who may invent (that is, faculty, staff, and student), activities in which such persons are engaged, and any combinations of these elements that would bring an inventor into the scope of, or exempt him or her from, provisions of the policy. Educational institutions do not usually lay claim to all inventive concepts generated by their employees or students. Rather, they limit themselves to those that arise as a result of employment relationships, or use by the researcher of institution resources, facilities or information.

## Establishment of the Inventor Commitment

Once an institution determines the criteria for applying the policy to individuals, its personnel may be required to dispose of inventions as determined by the institution in one of several ways (listed in generally decreasing order of enforceability):

1. By a formal inventor agreement - a legally enforceable contractual commitment by a person to dispose of inventions as determined by the institution. The agreement becomes a standard form for the institution and should be drafted by an attorney to ensure its enforceability. It is best executed by the individual when he or she assumes employment. [Note: The patent clause at FAR 52.227-11, paragraph (f), "Contractor Action to Protect the Government Interest," requires a written agreement with employees. See Appendix 2 to Unit 2 in this NCURA series, "Patent Rights under Government Contracts," at Appendix 2, Federal Register page 12990.]

2. By a state statute which stipulates that inventions made in state institutions or by state employees be disposed of in a predetermined manner.

3. By a person giving his or her written assent to the stated patent policies of the institution, which policies pronounce an obligation by the individual with respect to inventions.

4. By a stated patent policy containing a patent commitment which is established by the governing board and brought to the attention of individuals, but to which such persons are not required to give their personal formal assent.

5. By the presence of a policy allowing the individual to dispose of inventions as determined by the institution or to retain title, at his or her option.

To allow an institution conducting sponsored research to fulfill its contractual obligations, it is essential to have for every person engaged in such research a valid, binding commitment to assign inventions.

Rights of the Parties

The policy should specify the rights that the institution, the inventor, and sometimes outside sponsors have in the invention. The institution usually receives a valid, binding assignment of title to the patent application together with a commitment by the inventor to cooperate in executing legal documents, reviewing patent prosecution papers, and in some cases, assisting in the development or marketing of the patent.

The inventor is entitled to receive from the institution a clear statement of his or her rights and share of income, and the institution's plans for bringing the invention into public use, including a contingency for reassignment to the inventor.

Sponsor's interests in these situations are usually represented by the institution based on the terms of the research agreement. Sponsor equities in patents must be scrupulously observed by the institution to permit it to perform and maintain its contractual obligations.

Income-Sharing Arrangement

Educational institutions that accept assignment of patents from inventors customarily share royalty income with them. The inventor's share generally ranges from 15% to 50% of net income, although there are a few policies that authorize income outside these limits. Some institutions use sliding scales of income-sharing between these limits with a greater percentage going to the inventor from the early receipts and the rate of sharing declining as the amount of royalties increases.

Most royalty-sharing arragements are predetermined, that is, the inventor cannot negotiate a higher rate of sharing than stipulated in the institutional policy. Predetermined sharing rates have the advantage that it is unnecessary to pass judgment on the relative worth of each invention. They are easier to administer and usually reward the inventor equitably because a valuable invention's true merit is reflectd in the greater total royalty revenues it generates, a portion of which inures to the benefit of the inventor. Where several individuals collaborate on a patentable invention the inventor's income share is divided among them in portions agreeable among themselves (including co-developer's who may not legally be inventors).

Administrative Arrangements Defined by Policy.

Patent policies usually specify that patent activities be placed under the administrative cognizance of an institutional patent committee appointed by the governing board, the president, or the faculty senate with a majority of the individuals on the committee representing scientific or technical disciplines. It is not uncommon for a dean, a vice president, or even the president to serve as chairman. This committee often has the responsibility for recommending or establilshing patent policy, adjudicating disputes, determining which inventions shall be the subject of patent applications, and overseeing the administration of patent matters within the institution.

## 4. ADMINISTRATION AND DEVELOPMENT OF INVENTIONS

In addition to a patent policy, an institution needs an administrative focal point to deal with inventions and guide them through the various steps involved in obtaining patent protection and developing their commercial potential. This is discussed below in the language of NACUBO 2:6:1.

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### ADMINISTRATION AND DEVELOPMENT OF INVENTIONS (NACUBO)

The provisions of the institutional patent policy usually determine the make-up of the administrative organization for patents. Typically found at the top of the structure is the patent committee described above (under "Administrative Arrangements Defined by Policy" in the preceding section). The size of the administrative organization below this committee will vary, depending in part on the amount of research resulting in patents at the institution and on whether or not the institution assumes its own patent development and marketing responsibilities or delegates them to another organization.

Serving the committee as its operating arm on a part- or full-time basis is the institution's "focal point" on patents, an administrator usually drawn from the office of research administration, the legal department, or the business office. This administrator need not be a patent or general attorney but must have a thorough understanding of institutional patent policyand enough background in patent procedures and patent law to handle procedural and policy problems arising in the management of patents.

In a large operation, the patent administrator and any assistants may be a part of the institution's administrative group and often will work full time on patent-related matters. In a modest institutional patent operation, this individual may come from one of the basic science departments and spend only a few hours per month on duties related to patents. Regardless of the size of the patent operations, there should be at least one person who understands the essential requirements for handling patentable information (which is also perishable). This should insure that valuable property rights are not lost to the institution by premature disclosure, publication, or public use prior to filing a patent application or to releasing the invention to an affiliated patent development group.

#### Development and Marketing

The development and marketing of inventions typically occurs in one of three ways: in-house, by an institution-affiliated foundation, or by a patent management organization.

In-house. In this case, the institution controls and performs the invention evaluation that precedes the decision to patent, the filing of patent applications, the demonstration of the invention's feasibility, and the licensing (not necessarily in this order). This option is initially more costly, because it requires an early outlay for patent application costs and the overhead costs of patent administrative services. However, if sizable royalties are earned, this approach may be the most advantageous overall.

Institution-affiliated foundation. This option can have the advantages of better availability of funds to carry on the development of inventions (a speculative activity) and greater freedom to employ commercial methods to develop and promote the uses of the inventions. Assuming equal capabilities to develop inventions, the presence of a foundation may result in less income for the institution because of the foundation's expectation of sharing income. Both the in-house management and the institution-affiliated foundation management of patents allow the inventor to work closely with the unit that is promoting the invention. The inventor's ready assistance and background often are crucial to getting the invention covered by a patent and "off the ground" as a commercial success.

A patent management organization. Patent development and marketing by one of these organizations has some distinct advantages: it permits an institution to be active in patents with a minimum financial outlay and it allows considerable legal, marketing, and patent management expertise to be tapped at no immediate cost to the institution. The chief disadvantage in this arrangement is, of course, that a substantial portion of any royalties earned is shared with the patent management group as compensation for services. Also, because of the large number of inventions handled by organizations of this type and the geographical limitations involved, it is possible that this arrangement will diminish the valuable personal input of the inventor in development and marketing efforts.

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These three routes of invention development need not be mutually exclusive for an entire patent program. Many institutions utilize more than one, depending on the type of invention reported and the location of the various capabilities needed to develop it.

It is advisable for an institution involved with patents to have available the services of a patent attorney to answer questions, interpret the law, prepare, file and prosecute patent applications as the need arises, and serve as a representative during patent-related negotiations. Because of the diversity of complex patent subject matter generated in colleges and universities, it is desirable that the attorney be affiliated with a firm that includes individuals with a wide variety of technical backgrounds. The American Patent Law Association can be of assistance in making a selection.

## 5. INVENTIONS UNDER SPONSORED RESEARCH PROGRAMS

Issues relating to patents and publications are frequently the most difficult to resolve in negotiations with private research sponsors, particularly industrial organizations. For that reason, it is important that institutional policy is clear on the various options that are likely to arise, or that there is a mechanism for resolving the issues without undue delay. Because the issues are so varied, the question of institutional policy under research agreements with industrial and other private sponsors is beyond the scope of this paper and is dealt with in Unit 4 of this series, "Patent Clauses in Industrial Research Agreements."

Research agreements funded in whole or in part with Federal funds are subject to the provisions of Public Law 96-517, as implemented by OMB Circular A-124, and the Federal Acquisition Regulations (FAR) in Subpart 27.3 and the standard clause at FAR 52.227-11. The obligations of a university contractor under these regulations is discussed in detail in Unit 2 of this series, "Patent Rights under Government Contracts." However, since university patent policies and procedures must conform to certain requirements set forth in these regulations, it is appropriate to summarize them here since it is important to be familiar with these in establishing institutional patent policies and administrative practices.

### Obligations under Federal Sponsorship

The obligations of university contractors set forth in the standard clause at FAR 52.227-11 (which is reproduced in Appendix 2 of Unit 2 of this series) include the following.

### FAR 52.227-11

(c) Invention disclosure, election of title, and filing of patent applications by the contractor

(1) Disclose subject inventions and any publications, sale or use that may create a patent bar
(2) Elect whether or not to retain title
(3) File patent application on a timely basis

(d) Conditions when the Government may obtain title.

Convey title to the agency when required and requested

(f) Contractor's action to protect the Government's interest

(1) Execute instruments to confirm government rights and convey title per (d) above

(2) Identify personnel responsible for the administration of patent matters, require employees by written agreement to promptly disclose inventions, and instruct employees on the importance of disclosing inventions
(3) Notify agency of decision not to prosecute, maintain or defend a patent application
(4) Include statement acknowledging Government support in patent applications and patents issuing

(g) Subcontracts.

Include the appropriate patent rights clause in subcontracts.

(i) Preference for United States industry

Do not without agency approval, grant exclusive licenses unless the licensee agrees that products embodying the invention will be manufactured substantially in the United States.

(k) Special provisions for contracts with nonprofit organizations

(1) Limits right to assign
(2) Limits the term of exclusive licenses to other than small business firms
(3) Requires sharing or royalties with inventors
(4) Requiires that the balance of royalties after after certain expenses be utilized for the support of scientific research and education

## 6. INVENTION DISCLOSURES

Of critical importance to the administration of a patent program, and to adhering to obligations to research sponsors, is the prompt and proper disclosure of inventions. The importance of the disclosure is set forth in the following section in the language of NACUBO 2:6:1.

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Invention Disclosures (NACUBO)

An invention disclosure in this context is a complete description of an invention written by the inventor to report an invention to the institution or a sponsor. Along with the original laboratory notebooks and records it is one of the most important documents in an institutional patent program. The invention disclosure is based on the information contained in laboratory notebooks. (See Appendix B, "Guidelines for Keeping Laboratory Records.")

It is customary for the office responsible for patents to provide a disclosure form or set of guidelines for preparing disclosures. Whichever is used, completeness is more important than format. The invention disclosure should be couched in good technical language rather than in legalistic style. If the invention becomes the basis for a patent aplication, a patent attorney can put it in language that is acceptable to the Patent Office.

The invention disclosure is valuable in several ways. Writing the disclosure helps the inventor to mentally clarify the inventive concept and, if the concept has not yet been reduced to practice, to better organize his or her thoughts concerning it. A good disclosure is essential for the technical evaluation of the invention, for an accurate assessment of its commercial feasibility, and for a determination of its patentability. In the latter case, the disclosure is often used as the descriptive information supplied to the Patent Office for making the novelty search. Its clarity and completeness strongly affect the quality of the patent search.

The invention disclosure may later be used as the basis for the preparation of the patent application. Well-prepared disclosures readily transmit the patentable idea to the patent attorney and assist in preparing an application that precisely describes the invention. The less attorney time required for this, the lower the cost to the institution. Finally, when witnessed laboratory records bearing earlier dates are not available, the invention disclosure can serve as proof of the date of conception, or at least of the earliest recording of the invention. It thus may be an important document in any controversy over which of two parties first made the invention.

Disclosures of inventions are required under the terms of federal research agreements and must be sufficiently complete and of a quality that will allow the supporting agency to evaluate and prepare a patent application in the event that the contract terms entitle it to do so. A complete and accurate invention disclosure is extremely important to patent management organizations because they are usually not located in close proximity to the inventor. These organizations must, therefore, rely heavily on the inventor's written description to assess the worth of the invention and to determine any interest in accepting it and in carrying it forward to patenting and commercial development. (A typical set of instructions for preparing invention disclosures appears as Appendix D.)