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RESEARCH CONTRACTS BETWEEN UNIVERSITIES AND ENTERPRISES

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RESEARCH CONTRACTS BETWEEN UNIVERSITIES AND ENTERPRISES

A. Introduction

Research contracts between universities and corporations based on university-faculty inventions is a very topical subject and a burgeoning field of endeavor in our present "golden age" for patents and intellectual property. Nowadays, patents are much more valuable and enforceable, as many more patents are upheld and courts "read the riot act" to infringers. Penalties for infringement have become severe and can include treble damages, pre-judgment interest, attorneys' fees and (preliminary) injunctions. Witness recent astronomic damage awards for patent infringement: \$900 million in *Polaroid v. Kodak* in 1990, \$1.2 billion in *Intel v. Honeywell* in 1994 and the grant of a permanent injunction, without stay and before decision on appeal, in *Polaroid v. Kodak*.

Note also that in 1990 American universities received about 1200 U.S. patents and that there has been a sharp increase in recent years in licensing income which universities earn on their faculties' patented discoveries and inventions. The following table is revealing:

	<u>'89</u>	<u>'90</u>	<u>'91</u>	<u>'92</u>
Stanford	11	14	(23.7)	25.5
Calif.	10	12.2	(16)	31.4
MIT	3	4	(10)	16.2
Columbia	5.5	7		

(Figures are in millions. Numbers in parentheses are estimates.)

For example, the basic gene splicing invention (Cohen-Boyer) accounts for 80% of Stanford's royalty income. Similarly, the results of the British Technology Group have been enormously affected by cephalosporin (an antibiotic which made over \$250 million in royalty income), pyrethrin (pesticide), and magnetic resonance imaging (MRI) technology. The University of Florida receives most of its royalty from the "Gatorade" trademark. The University of Wisconsin collects large royalties from licensing vitamin D patents and Michigan State through Research Corporation reaps most of its royalties from cis-Platin, an anti-cancer drug.

In terms of licensing activity, similar growth rates to the royalty data are evident: the number of new licenses negotiated, for example, by MIT increased

from 15 in 1985 to 80 in 1992.

Another indicator of size and growth and importance of university innovation and technology transfer operations is the following: in 1980 SUPA (Society of University Patent Administrators) had 65 members and in 1992 AUTM (Association of University Technology Managers which is SUPA renamed) had over 650 members.

It is clear from all these figures and examples that universities have become much more aggressive in finding mechanisms to get their technology commercialized, no longer relying only on publishing research results and transferring graduates.

B. Scope of University/Industry Research and Research Funding

Research funding through grants and contracts is an important source of funding for universities. According to Katharine Ku, Director, Office of Technology Licensing, Stanford University, "(r)esearch in most universities in the US is funded 85-95% by the US government: at Stanford, for example, the US government funds approximately 85% of the \$327 Million research effort: \$283 Million Federal government funding, \$44 Million non-Federal funding and of that non-federal funding, \$13 Million comes from corporations." (Katharine Ku, *University — Industry Links; Licensing; Technology Transfer Arrangements; Research and Development*, WIPO Asian Symposium Lecture, New Delhi, January 1992, WIPO/INNOV/DEL/92/4) However, Pat Chew would take issue with this figure; according to him/her it is only 50%. (Pat K. Chew, *Faculty-Generated Inventions: Who Owns The Golden Egg?*, 1992 *Wis. Law Rev.* 260) At any rate Government funding is going down and corporate funding is going up.

Typically, if a company supports research at a university, Katherine Ku indicates "the company is generally able to receive certain rights to inventions that come out of the research. A company also has the right to review publications and to ask for a specific commitment in terms of personnel effort within a general work statement. Research at most universities, however, must be open because the principle of freedom of access to the underlying data is of overriding importance."

Many universities do not wish to become a research arm of a corporation and do mere product development. But if there is true research to be accomplished, most universities are eager to collaborate with industry. Companies such as, CIBA-GEIGY, Takeda, Hoechst, Sandoz, Monsanto, etc. have

established major research agreements with universities in the hope and with the expectation that such collaboration will be beneficial for both parties, especially in recent years and in the field of biotechnology.

Corporations tended to be reluctant to deal with universities until about 10-15 years ago primarily because university research often was touched by federal grants as federal funding was very prevalent and ownership often in question. Freedom to use such an invention exclusively was out of question until fairly recently.

As already intimated, universities in general do not undertake what is usually referred to as "contract research", that is, as pointed out by Joyce Brinton, Director of the Office for Technology and Trademark Licensing of Harvard, "research done at the university is presumed to have scholarly or academic importance and that will lead to new insights into the science. Carrying out a project that is designed and directed by a sponsor is not generally appropriate. Perhaps the closest thing to contract research is the conduct of clinical trials, and the rationale for participating in them is the ability to provide access to new treatment modalities and thus be at the cutting edge of clinical practice." (Joyce Brinton, *IP Rights in Non-profit Institution Contracts (Why do those universities behave the way they do?)*, American Bar Association Section of Patent, Trademark & Copyright Law, 1993 Annual Meeting Education Program Materials 707, 708 (1993)). Also screening projects are usually handled and funding money is welcome.

As a consequence,

"research at universities tends to be investigator initiated and directed. That does not mean that the investigator and the sponsor do not collaborate in defining the research to be pursued, but rather that the sponsor may not unilaterally define or control the scope or direction of the research. The project must be one that the investigator sees as having scholarly importance and, once a project description has been agreed upon, he/she must be able to pursue the project without interference by the sponsor." (*Ibidem*)

C. University Policies in the Area of Sponsored Research— The Harvard Paradigm

1. The crux of the matter is what rights universities will grant research

sponsors. If the sponsor has the resources and capability to rapidly develop and market products based on the likely results of the sponsored project, most universities will grant the sponsor the opportunity to obtain exclusive commercial license rights. There was a time when many universities would only offer non-exclusive license rights. Over time, that position has changed, but there are still situations when the commitment of exclusive rights may not be appropriate, e.g. general techniques for gene-splicing a la Cohen-Boyer patent.

As noted in my companion talk on "Ownership of University Faculty Inventions", universities require as a matter of general policy that inventions made by their employees be assigned to the university and not to the sponsor. This is also a requirement of federal law when there is federal funding commingled with corporate research funding. Inventions made jointly by employees of the university and employees of the sponsor are frequently owned jointly but still are governed by the sponsored-research agreement.

2. The next question is who pays for patent solicitation? Brinton provides the following answer:

"When an investigator reports a possible invention to the university, or the university or the sponsor determine an invention is disclosed in a manuscript or abstract reporting on the sponsored project, the sponsor is given an opportunity to decide whether it wishes a patent application filed. If it does, the sponsor is generally expected to support those patent filing costs. Because the university has limited funds available for filing patent applications, it cannot be placed in the position of being required by a sponsor to file patent applications at the university's own expense. On the other hand, if the sponsor decides not to support the filing of a patent application and the university decides to proceed at its own expense, the sponsor would no longer have rights to that invention." (*Id.* at 711.)

3. Regarding the further question as to who handles the patent prosecution, Harvard's standard license clause provides that Harvard will arrange for patent counsel of its choice and that the sponsor will be consulted at all stages of drafting, filing and prosecution. This is critical since the company will be in a

unique position to insure that the application will be sufficient to protect the type of product the company has under development.

Harvard even permits the sponsor to select a patent counsel or even use its in-house patent counsel but the outside attorney must understand that Harvard is the client rather than the sponsor. If the sponsor's internal patent counsel is used in order to take advantage of his/her special expertise in the particular field, Brinton feels that in that case Harvard's own counsel must approve all actions. This is important to avoid potential conflicts of interest. As all this is done at sponsor's expense, it would be this author's suggestion that the sponsor should insist for its own protection on a cap on expenses, however.

Harvard's interesting contract provisions in this respect are as follows:

The parties agree that it is desirable to file applications for patents on discoveries and inventions conceived and first reduced to practice during the term of this Agreement by personnel of HARVARD (including faculty, students and employees) in the performance of the Research. HARVARD agrees to report to SPONSOR such discoveries and inventions as are disclosed to HARVARD and to cause patent applications to be filed and prosecuted in its name at SPONSOR's request and expense on such inventions as may in SPONSOR's judgment become appropriate during the term of this Agreement. All information given to SPONSOR by HARVARD in accordance with this Section shall be held in confidence by SPONSOR so long as such information remains unpublished or undisclosed by HARVARD. Such patent applications and any patents resulting therefrom shall be subject to the terms of the Agreement.

HARVARD shall have the opportunity to file patent applications in its name at its own expense for those inventions made by its personnel and for which SPONSOR does not agree, within thirty (30) days after notification by HARVARD of its intent to file a patent application, to pay for HARVARD to file said patent application; such patent applications and any patents resulting therefrom shall not be subject to the terms of

this Agreement.

4. The next point to consider after patent filing is how rights are conveyed to the sponsor. Harvard's policy is to grant the sponsor an exclusive, time-limited option during which the sponsor can evaluate the technology, and then a subsequent period in which to negotiate the terms of a license agreement. Without such a time limit, the technology could be tied up indefinitely without any development efforts taking place. This policy is reflected in the following contract clause:

HARVARD, to the extent it is permitted to do so by its "Statement of Policy in Regard to Inventions, Patents and Copyrights" dated March 17, 1987 ("Patent Policy"), by its agreements with other sponsors of research, and the provisions of Public Laws 96-517 and 98-620, grants to SPONSOR an exclusive option to negotiate world-wide licenses under patent applications filed pursuant to this Agreement and under any resulting patents.

Such option with respect to each patent application shall extend for a period of _____ days from the date SPONSOR receives notification in writing of the filing of such patent application and a copy of such patent application, which notice and copy shall be sent to SPONSOR by HARVARD promptly upon filing. SPONSOR may exercise its option on HARVARD's patent applications or patents by informing HARVARD of the identify of such patent application and by providing a written statement, satisfactory to HARVARD, of its capability and intention to develop the invention (either alone or in conjunction with others or by means of sub-licensees, as appropriate) for public use as soon as practicable, consistent with sound and reasonable business practices and judgement. Upon exercise of each such option, SPONSOR shall have _____ months to negotiate the terms of a license agreement and HARVARD agrees to negotiate these license terms in good faith. During the option and subsequent negotiation periods, HARVARD

shall not offer commercial license rights to any third party. At the end of this time period if no license agreement has been signed, HARVARD shall be free to negotiate licenses with other parties.

5. Obligations to other sponsors can occur due to collaborations as well as due to co-mingling of funding for a particular project. Harvard wants to “preserve the right of their faculty to collaborate with other scientists. And if that collaboration results in a joint invention, (they) want to recognize the rights of the sponsors of all the joint inventors. Obviously, that means true exclusivity is impossible. If collaboration is anticipated ahead of time, it is possible to negotiate a sharing of rights among the sponsors, but if it occurs spontaneously, (they) want all parties to understand that they will be limited in what they can deliver in the way of license rights.” (*Id.* at 714.)

In other words, such university/industry research agreements should reflect a win/win approach and outcome.

Harvard’s relevant contract provision is as follows:

It is understood that the HARVARD investigators shall be free to discuss the Research with other investigators and to collaborate with them.

Notwithstanding HARVARD’s commitments regarding intellectual property in this Agreement, in the event any joint inventions result from such collaboration, HARVARD shall grant to SPONSOR the rights outlined in this Agreement to the extent these are not in conflict with obligations to another party as a result of the involvement of other inventor(s). In this latter case, HARVARD shall exert its good faith efforts to enable SPONSOR to obtain rights to the joint invention.

D. Model Agreement for University/Industry Cooperative Research

As can be seen from the few select Harvard contract clauses rendered above, Harvard has a highly developed and comprehensive policy and practice in this area. This should not come as a surprise. Other large research-oriented universities have had similar policies and practices in place for many years. The most sophisticated policy and practice is that of MIT which, in fact, is so special

that its written embodiment, a thirty-page document called "Guide to the Ownership, Distribution and Commercial Development of M.I.T. Technology", is "For Internal MIT Use Only".

However, the Industrial Research Institute and the Government/University/Industry Research Roundtable have jointly developed and published a very useful and handy brochure entitled "Simplified and Standardized Model Agreements for University-Industry Cooperative Research" (National Academy Press, Washington, DC 1988) with the expectation that these models would be useful as starting points for negotiations, streamline the negotiation process and decrease the time and effort required to reach an agreement. Quite possibly, such models may be more helpful and suitable than the overly polished MIT paragon.

The two models presented are reproduced as Appendices, namely, a simple research grant between universities and companies for basic research support and a more elaborate, but still simple and standardized, research contract with a few optional and alternative clauses — all of which is straight-forward enough to speak for itself. A caveat is expressed to the effect that "they are not intended to serve as a final document." Indeed, caution is always in order with respect to model and boiler-plate provisions as they may not fit all situations — a point which this author never tires of emphasizing in teaching Licensing /Technology Transfer.

In the Preface to this brochure it is also pointed out very aptly and fittingly that these model agreements "represent a reasonable approach to university-industry research agreements...based on the notion that research agreements should reflect the interests of both parties." The hope is also expressed that "both universities and industry will approach research undertakings with a degree of flexibility and creativity, taking into account the special interests and needs of each other." In other words, such university/industry research agreements should reflect a win/win approach and outcome.

E. Problems and Pitfalls in Industry/University Research Relationships Publication Pitfalls

1. First and foremost, there are potentially serious publication problems and impasses. On the one hand, since dissemination of research findings is at the core of academic life, the university position is fairly straightforward: the investigator must be able to report the results of his/her research without undue delay and without censorship by the sponsor. The sponsor, on the other hand, may be concerned about a potential loss of intellectual property rights and thus may want

the right to delay publication until patent applications are filed or may even want to preclude publication in order to main the results as a trade secret.

This is one of the areas, where there is considerable variation among universities. According to Brinton

“Harvard, is at one of the extremes...Harvard will allow no delay in publication and will not even guarantee that the sponsor will receive copies of publications prior to their submission for publication. This may sound as though it would jeopardize foreign patent rights, but in actuality, it need not do so.”

“First, if the sponsoring company and the investigator are communicating — as they should be — throughout the research project, the company will be aware of results well before a publication is even drafted, much less submitted for publication. And if there is actual collaboration between the university investigator and a company scientist, that sort of communication is assured. Then, if the research yields something on which patent applications should be filed, the patent application and the publication can be prepared in parallel.” (*Id.* at 709)

Harvard’s relevant contract provision on this point is as follows:

HARVARD’s Investigators have the right to publish or otherwise publicly disclose information gained in the course of the Research. In order to permit SPONSOR an opportunity to determine if patentable inventions are disclosed, the Principal Investigator will provide SPONSOR with copies of articles written by project personnel reporting on the Research prior to or coincidental with submission for publication. Whenever possible, efforts will be made by the Principal Investigator to provide drafts of intended articles as soon as they reach a stage suitable for distribution. SPONSOR shall inform HARVARD and the author(s) in sufficient time so as not to delay publication whether in its judgment the material contains information on which patent

applications may or should be filed. HARVARD and SPONSOR shall inform the Principal Investigator of the effect on patent rights of the disclosure of patentable information prior to the filing of a patent application.

Even if there is no communication and the copy of the submitted publication is the first time the company learns that a patentable invention has been made, it usually takes about four to six months before the article is actually published. During that time period, it should be possible for the parties to decide whether a patent application is to be filed, and to get it filed. Even if the publication is on a "fast track", there are at least three weeks to get an application on file.

That is Harvard's view but it is not that simple in this author's opinion who had run into situations in his previous career as corporate patent counsel where he had to file patent applications within a day for university professors whose inventions of interest to the corporation had been published and the one-year grace period was running out. The ready availability of the journal text made it possible to still file an application in the "final hour." However, foreign patent rights were lost. Also, submission of the manuscript to the editor and to peers for peer review may pose a risk to patentability.

And then there is the problem with oral disclosure. Presentations at scientific meetings can constitute a bar to patent filings in absolute novelty countries. "Fortunately", according to Brinton, "most major scientific meetings require the submission of abstracts well in advance of the meeting and those abstracts will enable the sponsor and the university to decide whether a patent application should be filed. If an abstract is not submitted in advance, a possible solution is to require that the investigator notify the sponsor when he/she accepts an invitation to present the results of the sponsored project. Then, the sponsor and the university can review the work in progress and prepare a patent application if appropriate." (*Id.* at 700)

Also there is a tendency of scientists to discuss their research findings with colleagues at, e.g., the Gordon Conferences, well before either submitting an article for publication or before making a presentation at a scientific meeting. There could be potential loss of patent rights through this route. There is certainly no way the university or the sponsor can monitor these informal conversations. To do so would be to intrude in an unacceptable way in the normal discourse of science. Besides, there is supposedly an unwritten convention among scientists that the sharing of unpublished research is "confidential." Anyone who published those results before the provider would be

censured by the scientific community. Nonetheless, company scientists can get insights into what competitors are up to.

2. There are other problems and pitfalls. A very troublesome one comes to light in so-called derivation interference proceedings. An interference in the U.S. first-to-invent patent system is a priority contest where two or more patent applications pending in the U.S. Patent and Trademark Office (PTO) claim the same invention and a determination must be made as to who the first inventor was inasmuch as only one patent can be issued on one invention. In this determination the respective dates of conception and reduction to practice of an invention are taken into consideration. In a derivation contest the issue to be decided is not who was the first inventor (priority) but who made the invention (originality). While interferences are fairly rare (only 1% of pending patent applications get into interference), interferences involving a derivation/originality issue are even rarer. Nonetheless, they come about not infrequently. For instance, in this author's professional experience, it happened several times that a university, to whom an inventive concept or invention was disclosed to enable it to carry out certain tests to complete reduction to practice or to confirm the utility, filed a patent application on such an invention incorporating their test results before they were communicated to the corporate sponsor and without informing it of such filing. Subsequently, when the corporate sponsor filed a patent application on the very same invention also including the university's test results, an interference was declared by the PTO since two applications on the same invention were pending.

In such a contest, it is not the earliest conception and reduction to practice dates that count; rather the question to be determined is whether the corporate sponsor disclosed the invention to the university fully and completely so that the university actually derived the knowledge from the corporation. In the derivation cases with which this author is familiar, it was the corporation that prevailed over the university. The lesson to be learned from these experiences is that whenever a corporation discloses inventive concepts or research projects to universities to enable them to do certain desirable or necessary testing, all such disclosures and discussions should be clearly and fully documented.

3. Lastly, conflicts of interest may "raise their ugly heads" when corporate sponsors undertake to prepare, file and prosecute patent applications based on sponsored-university research but this pitfall was adequately covered above.

F. Conclusion

As can be seen from the above overview, policies and practices regarding research contracts between universities and enterprises have reached a stage of great sophistication and complexity, even without the inclusion of the consequences on ownership and licensing/technology transfer of governmental funding and federal policy and legislation. However, in light of the vast experience inside universities and corporations in the area, the extensive literature (including model agreements) and the many programs dealing with the issues, and the objectivity, realism and professionalism exhibited by the “player and actors” in this field, negotiation and preparation of research agreements between universities and corporations are greatly facilitated, albeit still challenging.

Karl F. Jorda
Franklin Pierce Law Center

RESEARCH GRANT

(Date)

(Director/Administrator)
(Research and Development)
(University)
(Address)

Sir/Madam:

Re: Research Grant

(COMPANY) is pleased to provide an unrestricted grant of _____ Dollars (\$ _____) to (UNIVERSITY) for the support of research in the field of _____, conducted under the direction of Dr. _____. Our check payable to (UNIVERSITY) for the sum of the grant will be forwarded promptly under separate cover upon your indicated acceptance and return of a duplicate of this letter.

Although no accounting is expected in regard to this grant, regulations of the Internal Revenue Service may require that we produce your statement that the funds have been used for the stated purpose in order to receive appropriate tax recognition.

Please indicate your acceptance of this grant, and your certification that these funds will be used in support of the research indicated by signing and returning a duplicate of this letter for our files. The vehicle for transfer of funds should comply in all respects with the provisions of this letter.

Dr. _____ will serve as the technical contact for our company and will be responsible for following progress of the study, as well as assisting you as needed.

Very truly yours,

(COMPANY)
By: _____
Title: _____

ACCEPTED AND AGREED TO:

(UNIVERSITY)
By: _____
Title: (Director/Designated Administrator for R&D)
Date: _____

RESEARCH AGREEMENT*

THIS AGREEMENT effective this ___ day of _____, 198_, by and between _____ (hereinafter referred to as "Sponsor") and the UNIVERSITY OF _____, a non-profit educational institution (or its agent) of the State of _____ (hereinafter referred to as "University").

WITNESSETH:

WHEREAS, the research program contemplated by this Agreement is of mutual interest and benefit to University and to Sponsor, will further the instructional and research objectives of University in a manner consistent with its status as a non-profit, tax-exempt, educational institution, and may derive benefits for both Sponsor and University through inventions, improvements, and/or discoveries;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained, the parties hereto agree to the following:

Article 1 - Definitions

As used herein, the following terms shall have the following meanings:

- 1.1 "Project" shall mean the description of the project as described in Appendix A hereof, under the direction of Dr. _____ as principal investigator.
- 1.2 "Contract Period" is _____, 198_ through _____, 198_.
- 1.3 "University Intellectual Property" shall mean individually and collectively all inventions, improvements and/or discoveries which are conceived and/or made (i) by one or more employees of University, or (ii) jointly by one or more employees of University and by one or more employees of Sponsor in performance of Project.

Article 2 - Research Work

- 2.1 University shall commence the performance of Project promptly after the effective date of this Agreement, and shall use reasonable efforts to perform such Project substantially in accordance with the terms and conditions of this Agreement. Anything in this Agreement to the contrary notwithstanding, Sponsor and University may at any time amend Project by mutual written agreement.
- 2.2 In the event that the Principal Investigator becomes unable or unwilling to continue Project, and a mutually acceptable substitute is not available, University and/or Sponsor shall have the option to terminate said Project.

*Brackets ([]) have been placed in the text where appropriate to indicate variable time frames that can be used in an agreement. In some cases, ranges of time have been placed in the brackets to suggest reasonable lengths of time.

Article 3 - Reports and Conferences

- 3.1 Written program reports shall be provided by University to Sponsor every [_____] months, and a final report shall be submitted by University within [forty-five (45) days] of the conclusion of the Contract Period, or early termination of this Agreement.
- 3.2 During the term of this Agreement, representatives of University will meet with representatives of Sponsor at times and places mutually agreed upon to discuss the progress and results, as well as ongoing plans, or changes therein, of Project to be performed hereunder.

Article 4 - Costs, Billings, and Other Support

- 4.1 It is agreed to and understood by the parties hereto that, subject to Article 2, total costs to Sponsor hereunder shall not exceed the sum of _____ Dollars (\$_____). Payment shall be made by Sponsor according to the following schedule: [_____].
- 4.2 Sponsor shall loan/donate the following equipment to University under the following conditions: [_____]. University shall retain title to any equipment purchased with funds provided by Sponsor under this Agreement.
- 4.3 Anything herein to the contrary notwithstanding, in the event of early termination of this Agreement by Sponsor pursuant to Article 9 hereof, Sponsor shall pay all costs accrued by University as of the date of termination, including non-cancellable obligations, which shall include all non-cancellable contracts and fellowships or postdoctoral associate appointments called for in Appendix A, incurred prior to the effective date of termination. After termination, any obligation of Sponsor for fellowships or postdoctoral associates shall end no later than the end of University's academic year following termination.

Article 5 - Publicity

- 5.1 Sponsor will not use the name of University, nor of any member of University's Project staff, in any publicity, advertising, or news release without the prior written approval of an authorized representative of University. University will not use the name of Sponsor, nor any employee of Sponsor, in any publicity without the prior written approval of Sponsor.

Article 6 - Publications

- 6.1 Sponsor recognizes that under University policy, the results of University Project must be publishable and agrees that Researchers engaged in Project shall be permitted to present at symposia, national, or regional professional meetings, and to publish in journals, theses or dissertations, or otherwise of their own choosing, methods and results of Project, provided, however, that Sponsor shall have been furnished copies of any proposed publication or presentation at least [_____] months in advance of the submission of such proposed publication or presentation to a journal, editor, or other third party. Sponsor shall have [_____] months, after receipt of said copies, to object to such proposed presentation or proposed publication because there

is patentable subject matter which needs protection. In the event that Sponsor makes such objection, said Researcher(s) shall refrain from making such publication or presentation for a maximum of [_____] months from date of receipt of such objection in order for University to file patent application(s) with the United States Patent and Trademark Office and/or foreign patent office(s) directed to the patentable subject matter contained in the proposed publication or presentation.

Article 7 - Intellectual Property

- 7.1 All rights and title to University Intellectual Property under Project shall belong to University and shall be subject to the terms and conditions of this Agreement.
- 7.2 Rights to inventions, improvements and/or discoveries, whether patentable or copyrightable or not, relating to Project made solely by employees of Sponsor shall belong to Sponsor. Such inventions, improvements, and/or discoveries shall not be subject to the terms and conditions of this Agreement.
- 7.3 University will promptly notify Sponsor of any University Intellectual Property conceived and/or made during the Contract Period under Project. If Sponsor directs that a patent application or application for other intellectual property protection be filed, University shall promptly prepare, file, and prosecute such U.S. and foreign application in University's name. Sponsor shall bear all costs incurred in connection with such preparation, filing, prosecution, and maintenance of U.S. and foreign application(s) directed to said University Intellectual Property. Sponsor shall cooperate with University to assure that such application(s) will cover, to the best of Sponsor's knowledge, all items of commercial interest and importance. While University shall be responsible for making decisions regarding scope and content of application(s) to be filed and prosecution thereof, Sponsor shall be given an opportunity to review and provide input thereto. University shall keep Sponsor advised as to all developments with respect to such application(s) and shall promptly supply to Sponsor copies of all papers received and filed in connection with the prosecution thereof in sufficient time for Sponsor to comment thereon.
- 7.4 If Sponsor elects not to exercise its option or decides to discontinue the financial support of the prosecution or maintenance of the protection, University shall be free to file or continue prosecution or maintain any such application(s), and to maintain any protection issuing thereon in the U.S. and in any foreign country at University's sole expense.

Article 8 - Grant of Rights

- 8.1 Pursuant to Article 7.3, University grants Sponsor the first option, at Sponsor's sole selection, for either a non-exclusive, royalty-free license or, for consideration, an exclusive license with a right to sublicense on terms and conditions to be mutually agreed upon. The option shall extend for a time period of [_____] from the date of termination of the Agreement.

Article 9 - Term and Termination

- 9.1 This Agreement shall become effective upon the date first hereinabove written and shall continue in effect for the full duration of the Contract Period

unless sooner terminated in accordance with the provisions of this Article. The parties hereto may, however, extend the term of this Agreement for additional periods as desired under mutually agreeable terms and conditions which the parties reduce to writing and sign. Either party may terminate this agreement upon ninety (90) days prior written notice to the other.

- 9.2 In the event that either party hereto shall commit any breach of or default in any of the terms or conditions of this Agreement, and also shall fail to remedy such default or breach within ninety (90) days after receipt of written notice thereof from the other party hereto, the party giving notice may, at its option and in addition to any other remedies which it may have at law or in equity, terminate this Agreement by sending notice of termination in writing to the other party to such effect, and such termination shall be effective as of the date of the receipt of such notice.
- 9.3 Subject to Article 8, termination of this Agreement by either party for any reason shall not affect the rights and obligations of the parties accrued prior to the effective date of termination of this Agreement. No termination of this Agreement, however effectuated, shall affect the Sponsor's rights and duties under Article 7 hereof, or release the parties hereto from their rights and obligations under Articles 4, 5, 6, 7, 8, and 10.

Article 10 - Independent Contractor

- 10.1 In the performance of all services hereunder:
- 10.1.1 University shall be deemed to be and shall be an independent contractor and, as such, University shall not be entitled to any benefits applicable to employees of Sponsor;
- 10.1.3 Neither party is authorized or empowered to act as agent for the other for any purpose and shall not on behalf of the other enter into any contract, warranty, or representation as to any matter. Neither shall be bound by the acts or conduct of the other.

Article 11 - Insurance

- 11.1 University warrants and represents that University has adequate liability insurance, such protection being applicable to officers, employees, and agents while acting within the scope of their employment by University, and University has no liability insurance policy as such that can extend protection to any other person.
- 11.2 Each party hereby assumes any and all risks of personal injury and property damage attributable to the negligent acts or omissions of that party and the officers, employees, and agents thereof.

Article 12 - Governing Law

- 12.1 This Agreement shall be governed and construed in accordance with the laws of the State of _____.

Article 13 - Assignment

- 13.1 This Agreement shall not be assigned by either party without the prior written consent of the parties hereto.

13.2 This Agreement is assignable to any division of Sponsor, any majority stockholder of Sponsor, and/or any subsidiary of Sponsor in which [_____] percent of the outstanding stock is owned by Sponsor.

Article 14 - Agreement Modification

14.1 Any agreement to change the terms of this Agreement in any way shall be valid only if the change is made in writing and approved by mutual agreement of authorized representatives of the parties hereto.

Article 15 - Notices

15.1 Notices, invoices, communications, and payments hereunder shall be deemed made if given by registered or certified envelope, postage prepaid, and addressed to the party to receive such notice, invoice, or communication at the address given below, or such other address as may hereafter be designated by notice in writing:

If to Sponsor:

SPONSOR
ADDRESS
CITY, STATE, ZIP CODE

If to University:

UNIVERSITY
ADDRESS
CITY, STATE, ZIP CODE

If Technical Matter:

PRINCIPAL INVESTIGATOR
TITLE
UNIVERSITY ADDRESS
CITY, STATE, ZIP CODE

IN WITNESS WHEREOF, the parties have caused these presents to be executed in duplicate as of the day and year first above written.

(SPONSOR)

(UNIVERSITY)

By:
Title:

By:
Title:

Witness

Witness

OPTIONAL AND ALTERNATIVE CLAUSES

Appendix Article 1 - Non-disclosure

[Note: Since the term of the non-disclosure restriction is always longer than the term of the research project, it is much more efficient to have a separate non-disclosure agreement which can be administered long after the research is over and the file is closed. In the event, however, that a Non-disclosure Article is included in the Agreement, model language for such an article is provided. If a Non-disclosure Article is used, Article 6 - Publications should be replaced with the modified version below.]

- 1.1 Anything in this Agreement to the contrary notwithstanding, any and all knowledge, know-how, practices, process, or other information (hereinafter referred to as "Confidential Information") disclosed or submitted in writing or in other tangible form which is designated as Confidential Information to either party by the other shall be received and maintained by the receiving party in strict confidence and shall not be disclosed to any third party. Furthermore, neither party shall use said Confidential Information for any purpose other than those purposes specified in this Agreement. The parties may disclose Confidential Information requiring access thereto for the purposes of this Agreement provided, however, that prior to making any such disclosures each such employee shall be apprised of the duty and obligation to maintain Confidential Information in confidence and not to use such information for any purpose other than in accordance with the terms and conditions of this Agreement. Neither party will be held financially liable for any inadvertent disclosure, but each will agree to use its reasonable efforts not to disclose any agreed to Confidential Information.
- 1.2 Nothing contained herein will in any way restrict or impair either party's right to use, disclose, or otherwise deal with any Confidential Information which at the time of its receipt:
 - 1.2.1 Is generally available in the public domain, or thereafter becomes available to the public through no act of the receiving party; or
 - 1.2.2 Was independently known prior to receipt thereof, or made available to such receiving party as a matter of lawful right by a third party.
- 1.3 The above obligations for Confidential Information shall be in effect for a period of [five (5)] years from the termination of the agreement.

Modified version of Article 6 - Publications

- 6.1 Sponsor recognizes that under University policy, the results of University Project must be publishable and agrees that Researchers engaged in Project shall be permitted to present at symposia, national, or regional professional meetings and to publish in journals, theses or dissertations, or otherwise of

their own choosing, methods and results of Project, provided, however, that Sponsor shall have been furnished copies of any proposed publication or presentation at least [_____] months in advance of the submission of such proposed publication or presentation to a journal, editor, or other third party. Sponsor shall have [_____] months, after receipt of said copies, to object to such proposed presentation or proposed publication either because there is patentable subject matter which needs protection and/or there is Confidential Information of Sponsor contained in the proposed publication or presentation. In the event that Sponsor makes such objection, the parties shall negotiate an acceptable version, and the said Researcher(s) shall refrain from making such publication or presentation for a maximum of [_____] months from date of receipt of such objection in order for University to file patent application(s) with the United States Patent and Trademark Office and/or foreign patent office(s) directed to the patentable subject matter contained in the proposed publication or presentation.

Appendix Article 2 - Miscellaneous

- 2.1 The parties recognize that inventions, copyrightable works, or other proprietary information may arise from research sponsored in whole or in part by agencies of the federal government. The parties hereto agree that any such developments shall be governed by the provisions of Public Law 96-517, or as amended, during the term of this Agreement. When third party funding is involved, i.e., federal support, University will take appropriate action to assure that Sponsor has its rights under Article 8.

Optional Alternative Clause for Article 7 - Intellectual Property

- 7.1 University hereby agrees--to the degree that it can under university mandated policy--to assign to Sponsor at its request, the sole and exclusive ownership of any inventions, whether patentable or not, made in the performance of the research contemplated by this agreement and to execute such instruments prepared by Sponsor as is deemed necessary to vest the aforesaid sole and exclusive ownership. University agrees to cooperate in such assignment of patents for a period of [_____] following the request of Sponsor.

Optional Additional Clause for Article 11 - Insurance

- 11.3 Sponsor shall indemnify, defend, and hold harmless University against any and all claims, costs, or liabilities, including attorneys' fees and court costs at both trial and appellate levels, for any loss, damage, injury, or loss of life, other than that attributable in whole or part to University's fault or negligence, caused by the actions of Sponsor or its officers, servants, agents, or of third parties acting on behalf of or under authorization from Sponsor of products developed or made as a result of information or materials received from University, provided that (a) University promptly notifies Sponsor in writing after University receives notice of any claim, (b) Sponsor is given the opportunity, at its option, to participate and associate with University in control, defense, and trial of any claim and any related settlement negotiations, provided, however, that with respect to any claim, or portion thereof, from which Sponsor agrees at the initiation of such claim to save and hold University harmless, Sponsor shall have the sole control of the defense, trial, and any related settlement negotiations, and (c) University fully cooperates with Sponsor in the defense of any such claim.

WORLD INTELLECTUAL PROPERTY ORGANIZATION
GENEVA
UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL
GRAMADO, BRAZIL

SEMINAR

INDUSTRIAL PROPERTY IN UNIVERSITIES, RESEARCH CENTERS AND
INDUSTRY

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OWNERSHIP OF UNIVERSITY FACULTY INVENTIONS
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OWNERSHIP OF UNIVERSITY FACULTY INVENTIONS

A. INTRODUCTION

1. Globally, the exploding frontiers of science and technology are rapidly transforming societies, economies and political cultures. The role of the universities in precipitating and sustaining this scientific and technological progress in tandem with the industry is monumental. Whether it is in robotic engineering or molecular technology or super-conductivity the lead characters are the universities. It is in light of these developments that the question of ownership of university invention acquires unique importance, because of its implication on the creative potential of the universities in particular and on basic research in general.

B. THE COMMON LAW PRINCIPLES

2. In the U.S., long established common law legal principles grant to the employees such as the faculty the inherent right of ownership to their inventions. However, this inherent right is abrogated if an express contract to that effect exists.

3. The seminal case enunciating the law on the point is the U.S. Supreme Court decision in *U.S. v. Dubilier Condenser Corp.*, 289 U.S. 178 (1933). The applicable common law principles to determine the status of employee-generated inventions, which was enunciated by the court in this case, has been applied to a wide spectrum of employment settings. This case involved the rights of two employees of the Bureau of Standards of the U.S. Department of Commerce. Francis Dunmore and Percival Lowell were two full-time researchers in the Bureau's airplane radio group of the radio section of the electrical division. During the course of their work the researchers invented three products in a area

they had been working on out of scientific curiosity. Their work in this area was voluntary. However, they pursued their research while on duty using Bureau resources and time and with the full knowledge of their supervisors. *Dubilier* asserted that the proprietary rights in the invention are vested in the employer only if the employee is specifically "hired to invent". It is interesting to note that the doctrine of hired-to-invent has generally been circumscribed by the courts' reluctance to read it too broadly. As a rule an employee is considered as hired to invent only if the invention falls clearly within the scope of the contract. In fact, the burden is on the employer to prove that the employee was hired to create a specific invention.

4. This attitude of the courts is reflected in the decision of the Superior Court of Florida in *State Board of Education v. Bourne*, 150 Fla. 323 (1942). The court upheld the rights of the inventor to his invention on the grounds that the employee was a part of the research team as a plant pathologist and was not hired as a geneticist. In brief, if the individual is hired for the purpose of conducting research, he does not lose the right to his inventive idea unless he is assigned to the specific area in question. Dissenting with this general trend the Supreme Court of North Carolina in *Speck v. N.C. Dairy Found.*, 307 S.E. 2d 785 (N.C. 1983), held that university faculty employed as "teachers and researchers" fall within the category of persons "hired to invent" and thus do not have a right or interest in inventions arising from university research. This opinion is significant to the extent that it is the first case where the issue directly addressed involved the respective rights of the faculty inventor and the university.

5. If in the creation of the invention the time and resource expended was that of the employer, a non-exclusive license or a shopright in the invention arises in favor of the employer. Thus, as far as the common law is concerned the

question of employee invention turns on two critical factors:

- a) whether the research/invention falls within the scope of the work responsibilities of the employee and
- b) whether in the creation of the invention the time or resources of the employer was used.

As is apparent the crux of the matter resides in the contract of employment governing the relationship between the inventor and the institution concerned. In this context it should be pointed out that since state property law and contract principles generally govern issues dealing with ownership, the states are not bound to follow *Dubilier*.

C. THE PRACTICE FOR NON-GOVERNMENT-SPONSORED INVENTIONS

6. The contractual agreements that characterize the employment relationship between universities/research institutions and the faculty, are increasingly molded by the general policies of the universities/research institutions, which presume institutional ownership of faculty-generated invention/research. This trend is predicated upon three factors which seem to be pushing the universities towards entrepreneurial activities. These factors are:

- a) government incentive for creating innovative technology in collaboration with industry,
- b) cooperation and enticement by industry, and
- c) the self-interest of the institution.

These entrepreneurial opportunities are compelling universities to formulate policies in order to resolve the perplexing issues surrounding faculty ownership rights in inventions and research results.

7. A brief survey of the policies followed by different universities reveals that while the language may differ, the basic considerations behind these policies is the presumption of ownership by the universities. The basis on which

ownership is claimed can be classified into three basic approaches:

- a) ownership claims based on utilization of university resources or facilities,
- b) ownership claims if the invention is developed in the course of employment, and
- c) ownership claims which are made irrespective of whether the invention was made by the faculty using university resources or during the course of employment.

D. THE POLICY CLAIMS FOR UNIVERSITY VERSUS FACULTY OWNERSHIP

8. The policy invoked by the universities to substantiate their claim to ownership of faculty-generated inventions cover a broad range of arguments involving issues of competitive business practice, federal government requirements, legality of the policies, existence of infrastructure for useful exploitation of the inventions in questions, etc. At the heart of the matter is the question of the revenue-generating possibilities of the inventions, the issue of entrepreneurial opportunities which may arise from inventions, and their broader implications on the financial health, reputation, ability to attract talent, and resources in a highly competitive marketplace of the universities.

9. Faculty ownership of university-created invention, on the other hand, it is argued, rests on the assumption that ownership will act as a catalyst to enhance the faculty's creative genius. The policy claim for faculty ownership of invention is predicated primarily on the argument that university ownership of faculty inventions will eventually endanger the academic mission of the university concerned, namely, that it would jeopardize university emphasis on basic research by countenancing allocation of resources towards applied research. To illustrate,

in 1989 a majority of the approximate \$18.6 billion of basic research done in the U.S. was performed in academia. In contrast, of the approximate \$27.3 billion spent on applied research, only 13% was performed in universities. Reallocation of resources, in favor of applied research may infringe upon the mission of universities of promoting basic research.

10. Another argument against university ownership of faculty-created invention articulates the change that a university may undergo in the direction of entrepreneurial activities, in addition to their present role of venture capitalists and equity holders. This may expose the financial health of the university to the vagaries of the marketplace, create corporate, tax, and torts liability problems, affecting its ability to carry out its academic commitments. Ownership arguments on either side have their own strength and weakness. Though the scales are presently tilted in favor of university ownership, this should not be taken to imply that the faculty does not or should not have any right in their inventions.

E. THE PRACTICE FOR FEDERAL GOVERNMENT-SPONSORED INVENTIONS

11. Before the enactment of The Patent and Trademark Amendment Act of 1980 (35 U.S.C.A. ss 200-211, ch. 18 (west 1980); 37 C.F.R. ch. 4 pt. 401 (1989); 45 C.F.R. ch. 6 pt. 650.) no uniform regulations governed ownership rights between a sponsoring government agency and the university contractor receiving the funds. The Amendment Act, popularly known as the Bayh-Dole Act, envisages that in the eventuality of an invention flowing from the research sponsored by the government agency, the university elects title to the invention while the government acquires a non-exclusive, nontransferable, irrevocable, paid-up license. If the university does not elect to take title, the government may claim title. If the government does not claim title, then the inventor may petition

the government agency for ownership, which is usually granted. The law applies to all federal agencies and virtually to all federal funding agreements with universities.

F. THE SITUATION IN COUNTRIES OF THE EUROPEAN COMMUNITY

12. The U.S. perspective on the question of ownership in university-generated inventions can be better appreciated if contrasted with the position taken in Europe on the same issue. The European position on the question of ownership of university inventions is characterized by a lack of uniformity. In Denmark, Germany, Norway and Sweden, ownership of university research results and inventions is vested in the faculty, unless contractual agreement to the contrary exist or is allowed by the government. A rather interesting fallout of this legal regime is the near complete absence of infrastructure for the exploitation of such kind of inventions. In Germany, this position must be distinguished from that of the employees of research institutions, such as, the Max Planck Society for the Advancement of Science. Researchers in such an institution are classified as employees and their inventions are designated as either being part of their "service" or as "free inventions". In case of a service invention, depending on whether it resulted from the employees genius or was based upon the institution's expertise and experience, the institution can make limited or partial claim to the invention. The claim entitles the institution to the ownership of the invention in question. The German law stipulates a number of caveats to protect the employee's interests in the context of contractual clauses in labor agreements and on the matter of adequacy of the compensation owed to the employee. In Spain, though the ownership is vested in the university, the law provides for the faculty to share in the earnings of the university from the exploitation of the invention in question.

13. It is interesting to note that in the case of almost all EC member states there exists no special law to determine the faculty ownership issue. Without going into too much detail, it may be pointed out that if the invention is classified as falling within the scope of the inventor's "task or mission", then the university acquires complete title barring any contract to the contrary. If the invention does not come within this classification, even though it is claimed by the university, the faculty is entitled to additional remuneration. As a consequence of this position, large institutions exist in the UK and in France like the British Technology Group and ANVAR (in France), which exploit such university-generated inventions and research results.

H. CONCLUSION

14. It is clear from the above discussion that the troublesome problematic of ownership of faculty inventions is not only very complex, but also has tremendous impact on the technological development and consequent economic growth and social welfare of a country. This becomes apparent when the contribution of universities to the scientific and technological base of an economy is taken into account. Any legislation on the matter must take cognizance of the delicate balance that must be achieved so as to accommodate the interests of the faculty as well as that of the university. The question of ownership must thus be addressed within the broader framework of the socio-economic and legal backdrop which surrounds the academic environment.

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