

ARS Research Projects and Intellectual Property Issues

Introduction

In developing and executing research projects in ARS, it is critical to understand the role of intellectual property and its impact on our ability to perform research and to transfer the technology to our customers.

In planning and conducting research, there are several key manifestations of intellectual property (IP) that may impact the research process and the ultimate use of the resulting technologies, including:

confidentiality of information,
proprietary nature of materials, processes and/or research tools,
and intellectual property issues associated with collaborations.

Definitions

Intellectual Property: "... applies to any product of the human intellect ... whether or not the subject matter is protectable" These include "invention, discovery, technology, creation, development, or other form of expression of an idea." (excerpts from *Technology Transfer Desk Reference, Federal Laboratory Consortium, 2003*)

Technology Transfer: the process by which research results are adopted and put into practice

Developing the Research Plan

It is important to recognize and identify potential IP issues in developing the research plan in order to avoid potential conflicts in using the results of the research or difficulties in ultimately transferring the technology to our targeted customers. If materials or methods/processes are used that are proprietary or protected by patents or other means, it may limit our ability to transfer the technology to our end users and/or it may increase the cost for customers to use our technology because of costs associated

with licensing non-ARS background technology. For guidance on identification or management of IP issues, contact your Patent Advisors and Technology Transfer Coordinators in the ARS Office of Technology Transfer.

Materials and Experimental Procedures: In developing a research plan and in selection of experimental methods, the materials and/or methods proposed for the research approach should be reviewed to identify any potential IP associated with them and, if so, to identify the owners of the technology. Technologies to be used that are patented or proprietary should be clearly identified, including ownership and, if necessary, Material Transfer Agreements should be initiated for use of proprietary materials. Consideration should be given to the impacts of using protected technologies on the outcomes of the research and, if appropriate, alternatives should be identified.

Scientific Background and Literature Review: In conducting a literature review for the proposed project, it is useful to check the citations of the publications for references to patents that may be relevant to the materials or procedures of the proposed research approach. If appropriate to the field of research, a patent search should be performed in order to identify any potential IP issues that may be associated with the use of proprietary information or materials. Remember that publication of research results in journals does not preclude the existence of associated patents, even if they are not referenced in the publication.

Collaborations: Collaborative efforts may include, but are not limited to, development of the research plan, cooperative research activities and/or transfer of materials to or from ARS. In order to preserve any potential IP rights, Confidentiality Agreements should be used when developing the project with collaborators or sharing new or unpublished ideas or data. Use of Cooperator's confidential information in the research project may limit our ability to publish or transfer the results of the research freely; such issues should be discussed in advance and appropriate Confidentiality Agreements or Research Agreements put in place prior to initiation of the

research. In addition, if materials will be transferred to or from ARS, a Material Transfer Agreement should be used if these are patented or proprietary materials. If there is a potential for IP to result from the project, cooperative research agreements (e.g.: Memorandum of Understanding, Trust Agreement, Specific Cooperative Agreement, or Cooperative Research and Development Agreement) should be developed to define how intellectual property issues associated with the collaboration will be managed.

Transferring the Technology

Anticipated Products and Customers of the Research:

As a result of the Federal Technology Act of 1986, technology transfer is the responsibility of each ARS scientist. Because ARS is a publicly-funded federal institution, the transfer of ARS technology to our customers is the primary consideration in determining whether or not to protect any inventions that result from our research. Examples of technology transfer include demonstrations, presentations, publications, utility or plant patents, plant variety protection certificates and biological material inventions. ARS protects intellectual property only if it enhances or is necessary for successful technology transfer. Consult with your ARS Patent Advisors and Technology Transfer Coordinators for evaluation of potential IP in order to determine the most appropriate mechanisms for transfer of new ARS technologies.

In developing a research plan and identifying customers of the research, there should be an evaluation of the potential outcomes and products of the research. Who will the ultimate users be? How will the technology be transferred? Will further development or protection of the research results be needed in order to transfer the technology? Are there regulatory actions or approvals needed before end products can be made available? If so, appropriate steps should be taken during the research process to prevent premature disclosure of confidential information and to protect potential IP rights (Confidentiality Agreements, Material Transfer Agreements, Cooperative Research Agreements). Avoiding premature disclosure is critical because, in many instances, there may be substantial overseas markets for U.S. companies developing products from ARS technologies. Any enabling oral or printed disclosure of an

invention eliminates patent options in foreign countries unless an application has already been filed in the U.S. Webpage publication of meeting abstracts, field days, and open house poster sessions can potentially constitute a disclosure. Scientists should consult with their ARS Patent Advisor prior to submitting such materials.

Conclusions

In order to maximize our ability to perform research and to facilitate technology transfer, it is important to be aware of current and emerging technologies and to identify protected intellectual property issues associated with them. Likewise, it is critical to evaluate our research results for potential IP and to work with the Office of Technology Transfer to select the optimal vehicles for transfer of new technologies to our customers.

For further assistance:

Patents, identifying background IP, how to do a patent search, patentability issues: ARS Patent Advisors

Confidentiality Agreements, Material Transfer Agreements, Research Agreements: ARS Technology Transfer Coordinators