OFFICE OF TECHNOLOGY TRANSFER

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Brookhaven National Laboratory
Associated Universities, Inc.

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This brochure provides an overview of technology transfer opportunities at Brookhaven National Laboratory. If you wish to know more about our programs or how to gain access to Laboratory technologies available for licensing or to unique laboratory research capabilities or facilities, contact:

The Office of Technology Transfer
Brookhaven National Laboratory
Building 902-C
Upton, New York 11973-5000
(516)344-7338

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TECHNOLOGY TRANSFER AT BROOKHAVEN NATIONAL LABORATORY

WHAT IT IS ● HOW IT WORKS ● WHY YOU BENEFIT

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A Word About BNL...

Located at the center of Long Island, Brookhaven National Laboratory is one of the nation's leading scientific research laboratories. Established in 1946 on the former site of Camp Upton, BNL is operated by Associated Universities, Inc., under contract with the U.S. Department of Energy. AUI is a nonprofit, research management organization originally sponsored by nine universities: Columbia, Cornell, Harvard, Johns Hopkins, Massachusetts Institute of Technology, Princeton, Pennsylvania, Rochester, and Yale.

BNL's initial mission, to carry out research on the peaceful aspects of nuclear science, has been considerably broadened to help meet DOE's mandate to develop all energy sources. Its primary objective has always been to gain a deeper understanding of the laws of nature — the necessary foundation for all technical advances. New knowledge is constantly sought in such fields as physics, chemistry, biology, mathematics, medicine, oceanography, atmospheric sciences, and energy technology.

The Laboratory's multidisciplinary programs, staff, and unique research facilities have fostered a worldwide reputation. BNL shares the use of such facilities, beyond the scope of most individual institutions, with scientists from other academic and industrial laboratories.

Since its establishment in 1946, BNL has maintained a strong policy of cooperative research. Large numbers of visiting scientists, primarily from universities, use the Laboratory's large-scale facilities to do research not possible at less well-equipped individual institutions. BNL also encourages increased interaction with industry in the applications of new knowledge.

WHAT IS TECHNOLOGY TRANSFER?

The Office of Technology Transfer is firmly committed to technology transfer — to the utilization of Laboratory developed technology to the benefit of industry and state and local governments. Such technology utilization can be accomplished in a variety of ways. Brookhaven encourages exchanges of personnel between the Laboratory and industry, as well as cost shared cooperative research efforts with industry. Industry sponsored research and industry use of Brookhaven's designated user facilities provide access to the Laboratory's unique research expertise and facilities. The Laboratory's active patent licensing program is a further tool to accomplish commercialization of Brookhaven developed technology. The Office of Technology Transfer will work to match specific market-driven needs of individual companies with appropriate technologies from Brookhaven National Laboratory.

HOW TO UTILIZE BROOKHAVEN'S TECHNOLOGIES?

1

Look through the brochure for technology utilization opportunities appropriate for your needs.

2

Call the Office of Technology Transfer (OTT) at 516-344-7338 and tell us your specific needs (not general).

3

The OTT will try to match your needs with Laboratory capabilities.

4

If such a match is possible, it will serve as the foundation for utilization of Brookhaven technology.

USER FACILITIES AT BNL

The Laboratory has a large number of research facilities that are designated user facilities available to outside users. Although each of these facilities has its own point of contact, the OTT will provide information on specific facilities or how to get in touch with the appropriate person for submission of a proposal for use.

Two options are available for outside users of Laboratory designated user facilities. Non-proprietary, usually basic, research may be performed at any of the designated user facilities subject to facility availability and programmatic interest. Proprietary research may be performed at any of the Laboratory's designated user facilities. In this case, a formal Proprietary User's Agreement will be entered into between BNL and the outside user. This agreement calls for the user to pay full cost recovery to the Laboratory for the machine time and any related technical services which the Laboratory provides. In return, the outside user has the option to take title to any inventions resulting from work at the facility and to treat as proprietary all data generated during work at the facility. For more detailed information concerning the opportunities for proprietary and non-proprietary research facilities at BNL, please contact Margaret C. Bogosian, Patent Counsel and Manager, OTT at (516)344-7338

BNL Designated User Facilities:

Alternating Gradient Synchrotron
National Synchrotron Light Source
High Flux Beam Reactor
Scanning Transmission Electron Microscopy Facility
Double MP-Type Tandem Accelerator Facility
60 Inch Cyclotron
Positron Emission Transaxial Tomography Facility
JSW 168 Small Cyclotron

INDUSTRY SPONSORED RESEARCH

BNL maintains an effective work-for-others program with private industry, universities, and state and local governments. Several options are available for conducting research:

1

The sponsor can make a grant to the Laboratory with an indication that this money is to be used to support a basic R&D effort in a general research area. Other than access to the information that we would generate during conduct of such research either through our publication in scientific papers or through discussions with the sponsor, the sponsor would play no part in the direction of the research and would obtain no rights in any of the research results.

2

The sponsor could fund a specific non-proprietary research project at the Laboratory. In this instance, scientific staff from Brookhaven and from the industrial concern would together define a mutually agreeable research program. We would then prepare a formal proposal which we would have to have approved by the Department of Energy (DOE), since it would involve using Laboratory facilities for other than DOE sponsored research. After receipt of DOE approval, we would formally submit the proposal to the sponsor. The sponsor would then decide whether to fund the research program agreement. Under such an agreement, the Laboratory would perform the research program defined in the proposal; Brookhaven's Principal Investigator would have responsibility for directing this research program; and Brookhaven would have the right to publish on this research.

3

The sponsor could fund a specific proprietary research project at the Laboratory. Here the same steps would be followed as far as proposal preparation, DOE approval of the proposal and submission of the formal proposal to the sponsor. If the sponsor agrees to fund the proprietary research program defined in the proposal, Brookhaven would prepare a formal proprietary research agreement. The basic terms of such an agreement would cover the Laboratory's performance of the research program set forth in the proposal, would give Brookhaven's Principal Investigator the right to direct the research program, would require the sponsor to pay the Laboratory full cost recovery, and would grant the sponsor the option to take title to any inventions made during the course of the sponsored research program.

COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS - CRADAs

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BNL is actively seeking opportunities to participate in cooperative research and development programs with industry, university, and/or state and local government participants. Such cooperative research programs are formalized by a CRADA between the participants. Research work under a CRADA may be performed at BNL, at the laboratory of the non-federal participant(s), or at both institutions, and work is supported by contributions from all participants in the CRADA. BNL contributions to the CRADA can take the form of personnel, facilities, equipment, and other resources, but BNL can not provide funds to the other participant(s). Non-federal participant(s) contributions can take the form of funds, personnel, facilities, equipment, and other resources. Funds to support BNL's participation can come in part from non-federal participant, but part of BNL funding must come from federal funds.

A DOE Model CRADA has been established to expedite the DOE approval process and this Model CRADA permits BNL to negotiate rights to inventions and other intellectual property. CRADAs are being enthusiastically supported by DOE as a means for U.S. industry to benefit from the vast scientific and technological wealth of the DOE national laboratories.

TECHNOLOGIES AVAILABLE FOR LICENSING

Associated Universities, Inc. (AUI), the contractor-operator of Brookhaven National Laboratory, has the right to take title to patents that cover technologies invented at the Laboratory. AUI has developed an active licensing program for making these technologies readily available for commercialization by industrial companies.

At the present time AUI has available for licensing patent properties on biological materials and processes including gene expression systems, tracer materials and recombinant plasmids for encoding restriction enzymes. In addition, it licenses patents covering metal primers and coating compositions, such as improved macromolecule primers and complexed zinc-phosphate conversion coatings and coating processes.

In the fields of high energy physics and electronic controls, AUI licenses patents covering cluster ion machining techniques, RF accelerating cavity designs, particle beam position monitors and support means, and high temperature gas nuclear reactor fuels and reactor containment designs.

In the field of building materials, AUI licenses patents covering foamed cements and insulation materials. It also owns patent properties covering methods and microbial materials that are useful in the geothermal industry to remove toxic metals from brines and that are useful as drilling materials.

Other patents in AUI's licensing portfolio cover computer controlled fluorometers and methods for analyzing materials under the seas, ice-making machines and methods for improving the operating efficiencies and longevity of water chilling facilities, and methods for making a non-extractable stationary phase of polymer within a capillary.

Questions relating to the Associated Universities, Inc. patent licensing program should be directed to the OTT at (516)344-7338.