DISCLAIMER

Lunchtime seminar: *Could Your Invention Start a New Company?*
Friday, June 7th, Noon-1 pm., Bldg. 2, room 100B—Find out!

LBL
Tech Transfer News

June 1991
Volume I, Issue 2

New Energy Research Support

New Competitive Technology Act Makes Technology Transfer a Mission of National Laboratories

The recent Competitive Technology Act lets LBL researchers combine their DOE program research funds with private sector research funds in collaborative efforts that are mutually beneficial.

The Competitive Act also allows LBL to spend DOE funds on patent and licensing activities. Funding for patent and licensing endeavors were previously provided through the UC management fee.

Inside news

Call for Proposals FY 92 Cost-Shared Technology Research Projects

The Office of Energy Research (ER) Laboratory Technology Transfer Program has established a new program to provide funding to ER laboratories for technology research projects that are cost-shared with industry.

Proposals should emphasize the merits of the research effort as well as potential commercial applications. For example, if the subject is the use of a new protein for medical applications, the project might propose to study the basic structure of the protein where such knowledge would have specific impact for a product; both scientific and commercial goals would be served by the proposed work. Technology Research Projects can range from approximately $100K to $200K per year and may last up to three years.

The proposed FY 92 budget for ER's new Technology Research Program is $4.9M. LBL's proposed allocation is $600,000 and this amount may be increased if LBL submits competitive proposals. LBL has already received $221,000 for FY 91. LBL's Technology Transfer Office (TTO) coordinated FY 91 proposal submission and assisted researchers in preparing their successful proposals, ensuring that goals of the program connected to industry's goals. LBL has a large number of technology research projects that would be good candidates for this program.

The Technology Research Program provides a mechanism for "bridging the gap" from the point where a DOE R&D program has developed a technology to the point where the risk is low enough that a private company is willing to pursue further development on its own. The program will support

jointly funded, precompetitive technology research projects.

Proposal submissions will be coordinated through the Technology Transfer Office. So that the TTO can provide maximum assistance in preparation of proposals, please call Pepi Ross at extension 6502 as soon as possible with proposal ideas.

Cooperative Research and Development Agreements (CRADAs)

LBL can now enter into collaborative agreements with industry on programmatic research projects.

The UC-DOE contract has been modified to meet the requirements of legislation passed last year that encourages technology transfer. Through Cooperative Research and Development Agreements, DOE and industry can now jointly sponsor a research project. Costs, personnel, facilities, equipment, and research capabilities may be shared for mutual benefit.

DOE requires that CRADA opportunities be announced widely to possible US industrial partners so that fairness of opportunity is assured. The Technology Transfer Office (TTO) has worked with researchers to promote areas attractive to industrial collaborators. The goal is to invite private sector participation in the development of technology that has potential for commercial applications. The TTO is ready to work with other LBL research groups to describe their opportunities for collaborative research. In addition, the Technology Transfer Office can compile targeted mailing lists and send promotional materials to specific corporations. The Office also negotiates intellectual property arrangements for the agreements.

Once partners are identified, the contracts necessary to put CRADAs in place will be handled by the Office of Sponsored Research Administration in a manner similar to Work for Others Projects. To discuss CRADA contracts, telephone Joe Acanfora at extension 5214.

If you are interested in developing a promotional plan to announce collaborative opportunities in your research group, please call Bruce Davies in the TTO at extension 6461. Examples of collaborative announcements are available. To request these packages, please call Susan Weintraub at extension 5947.

FY 1992 Industry-Laboratory and University-Laboratory Technology Exchange Program Proposals

The call for proposals for DOE's FY 1992 Industry-Laboratory and University-Laboratory Technology Transfer Exchange Program will be issued soon. It's time to start talking with potential participating industrial or university scientists. The exchange program provides funds to stimulate new interactions between scientists at DOE Laboratories and industry or university scientists. The participating company or university must share the cost of the exchange, including its employees' salaries and benefits. DOE funds can be used for certain laboratory expenses and participants' living expenses and travel during the exchange. The project may support either a one-way personnel visit (from the participating company or university to LBL or *vice versa*), or a two-way exchange of personnel.

If you are interested in participating in this program, be sure to obtain your Division management's approval. Please call Lisa Lancaster at extension 6462 for more information and assistance.

Technology Transfer at LBL

1990 Highlights

Licensing and Promotional Activities

In 1990, LBL promoted 15 inventions to the private sector. To announce a technology that is available for licensing from LBL, the Technology Transfer Office works with inventors to prepare *New Technology Announcement* packages. The packages are sent to relevant industry executives and to editors of trade journals and emerging technologies newsletters.

New Technology Announcements sent out during 1990 included RMRB's lead carbonate scintillator; MCSD's and ASD's solid-state lithium battery; ASD's thermal bridge and technique for the recovery of carboxylic acids; CMB's tritium labeling method; ICSD's fault- location software, and AFRD's mini pulsed metal plasma gun.

LBL Technologies in Print

LBL technologies promoted by the TTO were featured in several publications including *Industry Week, Inside R&D, Eureka, Eureka R&D, Chemical Week, Superconductor Industry, Technology Access Report, Advanced Materials & Processes, JOM, Tech Transfer Report, Photonics Spectra, Science, Chemical & Engineering News, ASME News, Lighting Dimensions, FLC News, Advanced Manufacturing Technology, R&D Magazine*, and others.

Licensing Opportunities Portfolio

Besides preparing *New Technology Announcement* packages, the TTO maintains a licensing opportunities portfolio that includes one page profiles on current technologies available for licensing from LBL. *Licensing Opportunities at LBL* is distributed to organizations such as corporations, venture capital firms, and technology brokers that are interested in licensing LBL inventions. It is updated once a month. Copies are available from TTO.

Licensed LBL Technologies

Licensing agreements were reached on seven LBL technologies during 1990.

LICENSED TECHNOLOGY	DIVISION
•Rechargeable, solid-state lithium battery	Applied Science/Materials and Chemical Sciences
•Bulk properties of high temperature superconductor	Materials and Chemical Sciences
•Energy-efficient, compact fluorescent lamp	Applied Science
•Fundamental Particles Chart	Physics
•Amorphous silicon detector	Physics
•Antibody to erythropoietin	Cell and Molecular Biology
•DNA synthesis instrumentation technology	Information and Computing Sciences Cell and Molecular Biology

East Bay Emerging Technology Advisory Board holds Annual Emerging Technology Ventures Briefing

On October 24th, 1990, LBL presented four technologies at the 2nd Annual Briefing to venture capitalists and private investors. The researchers presenting technologies were **Victor Perez-Mendez,** amorphous silicon array for medical imaging; **Billy Loo,** lung densitometer for measuring pulmonary edema; **Michael Siminovitch,** thermal bridge for increasing fluorescent fixture efficiency and performance; and **Bill Greiman** and **Dennis Hall,** *FindIt* software—a fault-location system for complex, multi-component processes.

The East Bay Emerging Technology Advisory Board (ETAB) was formed in 1989 to promote early-stage technologies for first-round investment in start-up companies. The Board holds annual briefings to present new technologies to venture capitalists and private investors. LBL works with ETAB to present LBL's newest promising technologies—technologies that have strong potential to form start-up companies. LBL presented profiles on seven of its technologies at the 1st Annual Briefing. As a result of the briefing, two companies incorporated. PolyPlus was formed based on LBL's new solid-state lithium battery technology. Contemporary Physics Education Project (CPEP) was started as a non-profit educational product firm. PolyPlus will manufacture and market solid-state lithium batteries. Initially, the technology will be developed for use in small-scale electronics applications. The company expects to introduce the first product in about two years. CPEP will continue to develop and distribute the LBL-designed fundamental particles chart and associated interactive computer software.

Introduce your technology to the East Bay Emerging Technologies Advisory Board

The TTO is looking for inventors to present their work to the East Bay Emerging Technologies Advisory Board. Inventors present their technology to the Board throughout the year. These advance presentations give the investigator a chance to fine-tune his or her technology presentation and to learn about the venture capital process.

If you have an invention or group of inventions that you think could provide the main product for a new start-up company, please call Pepi Ross at extension 6502 to discuss presenting your technology.

Could Your Invention Start a New Company?

Don't miss the lunchtime seminar
Friday, June 7th
Noon- 1pm
Bldg. 2, room 100B
Members of ETAB talk about start-up companies based on new technologies.
Presented by the Technology Transfer Office

FY 91 Industry/Laboratory Exchange Program Awards

Each year the Department of Energy provides funding support to bring industry scientists into DOE laboratories and/or support DOE scientists' work at corporate laboratories. A total of $110,000 was awarded to LBL divisions for FY 1991. Funding was awarded to Accelerator and Fusion Research, Physics, and Materials Science Divisions. For information on FY 1992 proposals, contact the Technology Transfer Office.

New LBL technology transfer brochure is now available

The TTO has prepared an informative brochure that describes major program areas, research centers, user facilities, and the administrative structure of LBL's technology transfer process. The brochure is called *Technology Transfer at Lawrence Berkeley Laboratory—Taking a Closer Look*. Designed to help industry understand how to work with LBL and who to contact, *Taking a Closer Look* provides general guidelines to technology transfer options. It is available to all LBL divisions. To order copies, call Lisa Lancaster at extension 6462.

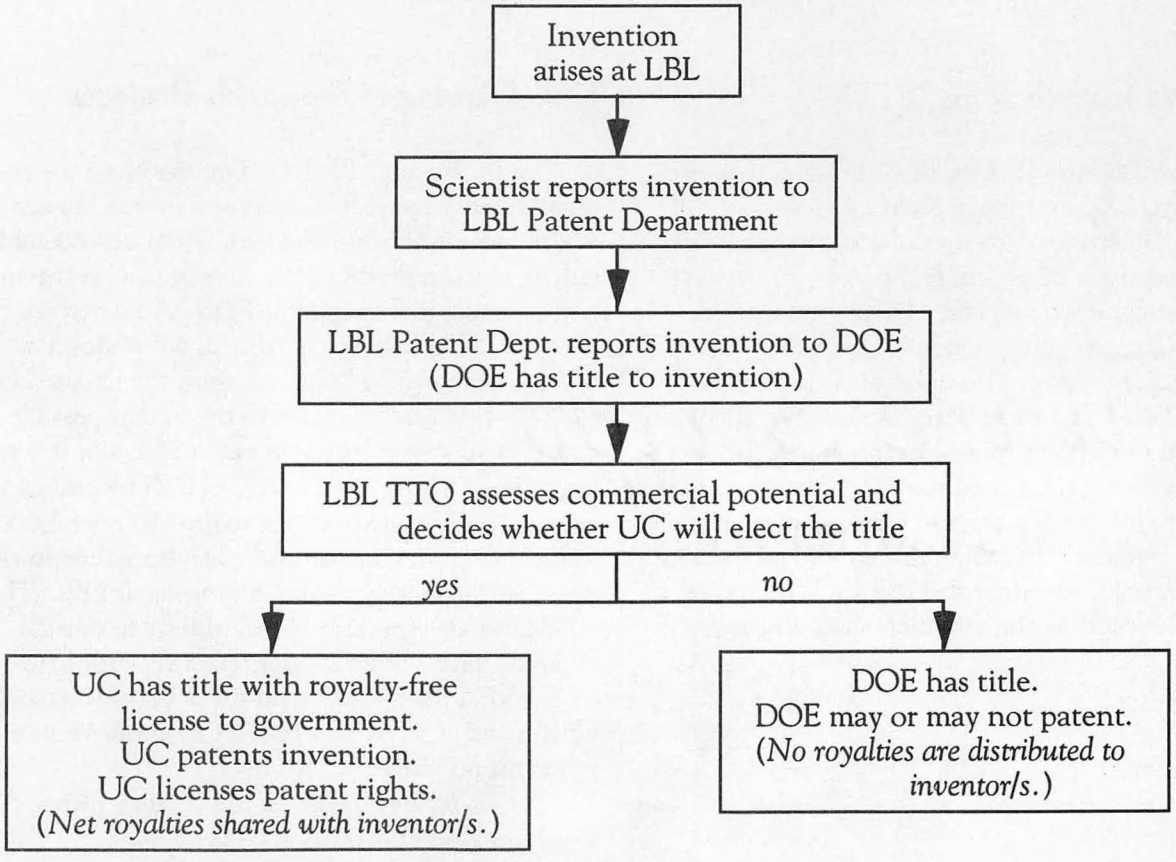
Kathleen Moss Joins Patent Department

The Patent Department is important to LBL's technology transfer effort. Patents on LBL inventions provide the intellectual property that the Technology Transfer Office licenses (illustrated in flow chart below). As of 1990, LBL has a new and capable patent attorney.

Kathleen Moss joined the Patent Department on October 1st, 1990. Kathleen has an MS degree in genetics and 10 years of professional legal experience. She served as an attorney advisor for the Food & Drug Administration, as an associate in two private law firms, and as a patent attorney for the US Navy. For the past two years she has worked as a patent attorney for Lawrence Livermore National Laboratory. She will draft patent applications in biomedical and superconductor subject areas.

The Patent Department's primary objective is to disclose LBL inventions to DOE and seek patents for inventions that have commercial potential. The Patent Department conducts its business both in-house and using outside patent firms. In the future, the Patent Department hopes to keep more of the work here at LBL to streamline the patent filing process, accelerate the patent filing rate, and increase economic efficiency.

USUAL FLOW OF PATENT TITLE



Patent Department and Technology Transfer Office Staff. Standing left to right: Connie Curtin, Patents; Susan Weintraub, TTO; Lisa Lancaster, TTO; Bruce Davies, TTO; Bert Weis (recently retired), Patents. Seated left to right: Mark Owens, TTO; Pepi Ross, TTO; Kathleen Moss, Patents.

Susan Weintraub Joins TTO

Susan Weintraub joins the TTO staff to assist in promoting LBL-developed technologies. She will prepare and maintain databases of corporations which have expressed an interest in technology transfer at LBL, and assist in writing and editing promotional materials. She will also provide a wide variety of office support services. Through Bay Temps, Susan has worked for LBL in a variety of roles. She spent a year working in LBL's CFO office, and recently assisted the 88-Inch Cyclotron management and staff in preparing for the Tiger Team inspection. Susan's advanced degree in molecular biology will give her an edge in preparing scientific and technical literature, and in understanding the technical marketplace.

LBL Catalog of Research Projects

In the last *LBL Tech Transfer News* we announced that the *LBL Catalog of Research Projects* was in the process of being updated. After considerable help from each division, the *Catalog* has been printed and is available through the TTO. A Hypercard Stack of the Catalog will be available in a few months.

Prepared by Lisa Lancaster, the updated LBL *Catalog of Research Projects*, to the extent possible, contains all research carried out at LBL and it is not limited to DOE-sponsored research. The previous edition of this *Catalog* was requested by over 2,000 industrial, governmental and educational institutions interested in current research projects at LBL. The publication is especially useful to send to outside organizations interested in interacting with LBL. We request that researchers send the TTO abstracts of newly funded projects. Also, let us know when a project is no longer active.

To receive a copy of the catalog, please call Lisa Lancaster at extension 6462.

Patent Applications Filed & Patents Issued for LBL Inventions - FY 1991

DIVISION	INVENTOR	TITLE	PATENT APPLICATION FILED	PATENT ISSUED
AFRD	K-N. Leung D. Moussa S. B. Wilde	Field Free, Directly Heated Lanthanium Boride	√	√
AFRD	M. Vella	Aerosol-Assisted Semiconductor Fabrication	√	
ASD	A. K. Oppenheim H. E. Stewart	Pulsed Jet Combustion Generator for Non-Premixed Charge Engine	√	√
CMB	G. Clemons	Method for Producing Substantially Enhanced Erythropioetin Antisera Useful in Radioimmunassays	√	
ASD/CSD	C. Lampert S. Visco	Electrochromic Optical Switching Device	√	
ENG	R. H. Pehl N. W. Maddena D. F. Malone	Cryostat Including Heater to Heat Target	√	√
MSD	M. Bednarski	Sugar Coated Semiconductors	√	
MSD	P. Schultz K. Shokat	Targeting Complex Mediated Immunogenicity	√	
MSD	A. Wang H. Blanch D. Clarke	Carbohydrate Derivitized Acrylic-Type Polymers made from Novel Carbohydrate-Modified Acrylic-Type Monomers and Method of Making Such Monomers	√	

LBL Researchers Win 1991 FLC Technology Transfer Excellence Awards

The Federal Laboratory Consortium's (FLC) Annual Awards for Excellence in Technology Transfer recognize national laboratory employees who have done outstanding work in the process of transferring technology. Nominations are made by the laboratories and are judged by representatives from industry, state and local governments, academia, and the laboratories.

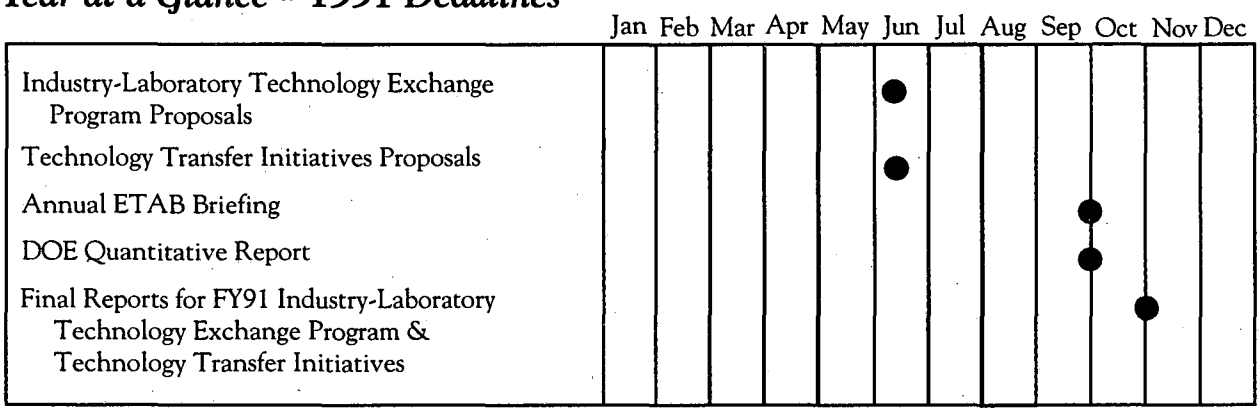
Four LBL scientists were winners of a 1991 FLC Award

- **Ronald H. Huesman** of RMRB for developing and distributing RECLBL, the tomographic reconstruction software package, to hundreds of medical imaging institutions and equipment manufacturers world-wide.

- **Michael J. Siminovitch** of ASD for developing, patenting and licensing to Lumatech, a major compact fluorescent fixture manufacturer; a thermal management system that will increase the efficacy of its lighting products by 10-15% and the light output by 15-20%.

- **Lutgard C. DeJonghe and Steven J. Visco** of MCSD and ASD for their development of a solid-state lithium battery that uses a novel solid-state cathode which is based on a new class of polymeric materials developed at LBL. The technology has been successfully licensed and transferred to the PolyPlus Battery Company.

Year at a Glance – 1991 Deadlines



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Prepared by the
Technology Transfer Office
Mailstop 90-1070
(415) 486-6467

Technology Transfer Office

Staff:	Extension:
Pepi Ross	6502
Mark Owens, Jr.	6463
Bruce Davies	6461
Lisa Lancaster	6462
Susan Weintraub	5947