DISCLAIMER

Industry and Government Partnerships
Business Highlights
Lawrence Berkeley Laboratory

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IGP Mission Statement

- Build new partnerships with industrial and nontraditional government partners where capabilities and technologies derived from LBL's research activities can be applied to solving important customer problems.
- Provide stewardship of technology and intellectual property developed through publicly funded research to gain maximum value for the national economy and the public good.
- Strengthen business relationships and establish LBL as a preferred business partner through high integrity, reliable, business practices and by delivering on agreements and commitments.
- Increase business volume to create income that can be applied to the pursuit of LBL's strategic objectives.
- Strengthen ties with our many constituents in the community, state, region, and nation and secure their ongoing commitment to LBL.

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IGP Includes...

• Technology Transfer Department:

The Technology Transfer Department evaluates, markets, and licenses inventions and other intellectual property; contracts for research and development at LBL with federal and state agencies, universities, and private companies; develops new business partnerships with individual companies and consortia; markets LBL capabilities and expertise to the private sector; and manages the multi-million dollar Energy Research Laboratory Technology Transfer Program, funding industry-driven R&D at LBL.

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• Government and Community Relations Office:

LBL Government Relations monitors federal government activities for management attention, responds to requests for LBL information, assists in the preparation and review of congressional testimony by LBL representatives, helps to educate interested federal staff about LBL, and handles the visits of VIP visitors from the executive and legislative branches.

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LBL Community Relations communicates LBL's accomplishments, capabilities and initiatives to local and state audiences through laboratory involvement with the community. The effort involves working with the Oakland and Berkeley chambers of commerce, providing LBL tours for the public and targeted local groups, informing state and local officials about LBL, and providing speakers to local community group meetings.

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Inside This Issue

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IGP Highlights

✸ **The DOE OHER funded a new protein crystallography wiggler, beamline, and end station on the ALS.** The $3.8M funding resulted from a team effort between staff of the ALS (Howard Padmore, Brian Kincaid, and Jim Krupnick), Structural Biology (Sung-Hou Kim and Thomas Earnest), and Glen Dahlbacka of IGP. Macromolecular crystallography is one of the three major applications of the ALS of interest to industry, the others being microfabrication and analytic services. The proposal was developed after conversations and input from the academic and industrial community indicated a need for a highly automated and user friendly facility. DOE submitted the proposal for peer review and it received high technical marks that led to the base funding of $3.85M capital and $250k/year operating over the next two years. These funds assure that a facility with at least one end station (of three possible) can be built. Over the next quarter the team will solicit an additional $2.5M from the private sector to build another end station. Dahlbacka said, "The DOE commitment to this project secures the future of protein crystallography at LBL and insures the availability of an important regional asset for the biotechnology community. The performance and reliability of the ALS in combination with ancillary support facilities being built on site will lead to a facility with unprecedented productivity."

✸ LBL helped a small business, E.A. Fischione Instruments of Export, PA, develop a new ion mill product that the company sees as an important addition to its product line. An ion mill thins samples so that they can be observed under an electron microscope. The company was having problems developing its product and called the National Technology Transfer Center, which put them in touch with Ian Brown, an LBL scientist in the field of ion beams and plasma processing. He was able to give advice over the phone an hour at a time for several weeks, helping the company solve its technical problems. The Vice President/Engineering of E.A. Fischione said, "the product that came out of this investigation should increase our sales dramatically." **Paul Fischione, President of E.A. Fischione said "it's one of those situations where the government is really benefiting small business ... this is a textbook example of how it's supposed to work."**

✸ TTD coordinated a visit by four top executives from Fluor Daniel Inc., a major corporation. On November 1, FDI and LBL gave organizational overviews and fifteen LBL scientists gave presentations on their technologies. **As a result of the meeting, FDI has invited LBL investigators to visit their facilities and there is a possibility for partnerships in the areas of plutonium detection and flue-gas scrubbing.**

Heads Up!

The Technology Transfer Department (TTD) is collecting and preparing information from LBL for a new nation-wide DOE database aimed at making partnership information available to the broadest possible business audience. This effort is named the DOE Technology Information Network (DTIN). The database will be accessible via the World Wide Web and will contain information from 13 national laboratories in the following categories:

Scientific and Technical Capabilities

Technologies Available for Licensing

User Facilities Available

Staff Expertise

Los Alamos is taking the lead in this project and will host the Web server that contains this information. They have contracted to use a powerful proprietary search engine and indexing software and plan to incorporate advanced viewing software such as Adobe Acrobat in the system. LANL will also provide an 800 number with modem links to the Internet, which will allow business users to access the WWW. LBL will have over 60 invention records in the "Technologies Available for Licensing" category.

TTD is starting an effort to capture staff expertise information, which has never been done before. This information will also help with partner matching activities. **Researchers interested in having their background and current work featured, please contact Steven Hunter x5399, email slhunter@lbl.gov.**

Royalty Distributions to LBL Scientists

LBL Director Charles Shank handed out royalty checks in mid-December to seven inventors whose work has been licensed to private industry. This is expected to be just the beginning of the Laboratory's growing technology transfer efforts and the royalties likely to be received in the future.

All income from a licensing agreement is split between LBL and the inventors. The formula is as follows: Of the first $100,000 of net cumulative income (income after an administrative charge of about 15% and costs for patent and exceptional licensing are paid), 50% goes to the inventor and 50% goes to LBL. Inventors receive 35% of the next $400,000 and 20% of any additional income.

The researchers receiving royalties are:

- **Gisela Clemons** (LSD) - developed a uniquely effective antiserum used to measure erythropoietin, a hormone that controls the production of red blood cells. Licensed to Diagnostic Systems Laboratories.
- **Greg Ward** (EED) - authored lighting simulation software that predicts light levels and appearance of a space prior to its construction. Licensed to Genlyte.
- **Chin-Fu Tsang and Frank Hale** (ESD) - developed a high-resolution instrument/software package for characterizing groundwater contamination. Licensed to Colog Inc.
- **William Hearn, Issy Kipnis and Henrik von der Lippe** (visiting researcher) (ENG) - designed a customized integrated circuit for use with avalanche photodetectors. Licensed to Advanced Photonics Inc.

LBL Industry Collaborations Awarded ER Funds

Ten multi-year research collaborations between Lawrence Berkeley Laboratory and private industry have been awarded a total of $2.3 million for FY1995 by the U.S. Department of Energy's Energy Research Laboratory Technology Transfer (ER-LTT) Program.

- Isolation of genes for development of therapeutic agents for treatment of diabetes and obesity.
  *Life Sciences, **Eddy M. Rubin**; partner Rhone Poulenc-Rorer; contract officer Cole Cannon*
- Study of materials for high-density information storage using X-ray microscopy.
  *AFRD, **Neville Smith**; partner IBM Research Center; contract officer Marie Bowman*
- Development of ion source/beam control technology for lithography.
  *Life Sciences, **Ka-Ngo Leung**; partner Advanced Lithography Group; contract officer Marie Bowman*
- Development of zinc/nickel oxide batteries for electric vehicles.
  *Energy & Environment, **Frank McLarnon and Elton Cairns**; partner Energy Research Corp.; contract officer Nancy Saxer*
- Development and commercialization of carbon monoxide dosimeter.
  *Energy & Environment, **Greg Traynor**; partner Quantum Group Inc.; contract officer Nancy Saxer*
- Study of amorphous diamond for use in flat panel displays.
  *Material Sciences, **Joel Ager**; partner SI Diamond Technology Inc.; contract officer Cole Cannon*
- Development of soybean peroxidase enzyme for waste remediation.
  *Structural Biology, **Alexander Glazer**; partner Enzymol International Inc.; contract officer Cole Cannon*
- Study of catalytic conversion of chloro-fluorocarbons.
  *Material Sciences, **Gabor Somorjai**; partner DuPont Co.; contract officer Phyllis Housel Gale.*
- Development on-line health care imaging for National Information Infrastructure.
  *Information & Computing Sciences, **William Johnston**; partner Kaiser Foundation; contract officer Phyllis Housel Gale*
- Determine the 3-D structure of the erythropoetin receptor, the primary hormone involved in regulating the production of red blood cells.
  *Life Sciences and Structural Biology, **Thomas Earnest and Sung-Hou Kim**; partner Amgen Inc.; contract officer Cole Cannon*

Topic of the Month

The Coming Year In Washington

The major change in Washington is the shift from Democratic to Republican leadership in both the House and the Senate. There will be new leadership on all Congressional committees important to LBL. For instance, Congressman Robert Walker (R-PA) will replace Congressman George Brown (D-CA) as chairman of what will now be called the House Science Committee. Similarly, Congressman John Myers (R-IN) will replace Congressman Tom Bevill (D-AL) as chairman of the House Energy and Water Development Appropriations Subcommittee.

While the specific budgetary impacts of the election are still uncertain, it is clear that there will be cuts in federal R&D programs that affect LBL. Past Republican proposals have advocated deep cuts in energy efficiency and renewables, fusion, and environmental R&D. Also slated to be critically examined are programs such as NIST's Advanced Technology Program (ATP), which the Republicans have long opposed as too close to a federal "industrial policy." DOE's technology transfer funds will also come under close scrutiny.

Recently, the Department of Energy has proposed, as part of the Administration's FY 1996 budget proposal, to cut "applied research programs" by $1.2 billion over five years. It is unclear at this point what specific programs will be cut, and equally important, whether these proposed cuts will be agreed to or increased in magnitude by the Republican Congress.

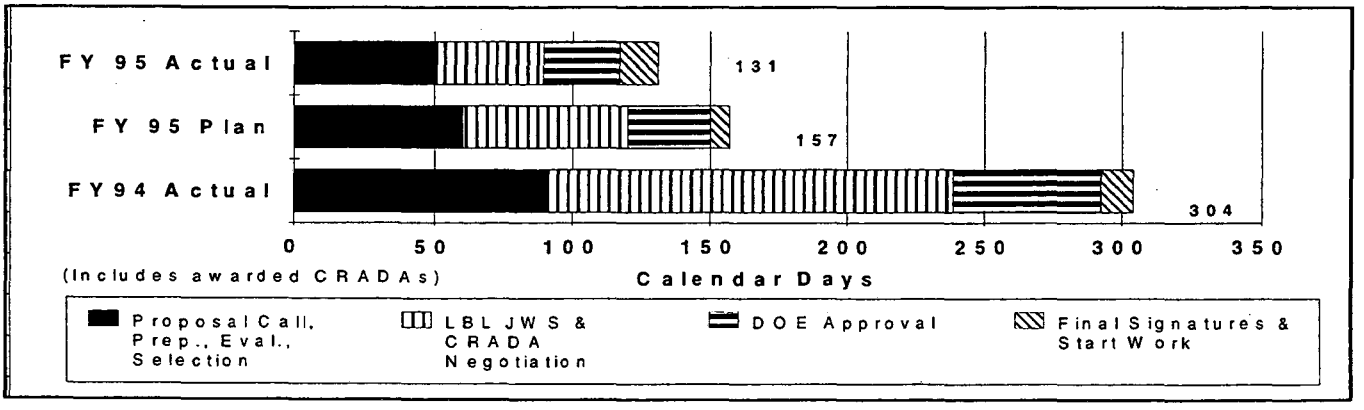
Finally, there has been much talk about reorganizing, or even eliminating, the Department of Energy. DOE has its own reorganization study under way, and the Galvin panel on the DOE laboratories is expected to address the DOE management structure when it issues its report in February. Many Republican members of Congress have indicated an interest in possibly eliminating one or two Cabinet agencies, and DOE has been prominently mentioned. There is likely to be much discussion about this and other budget-related reorganization options in the coming year.

Improvement Efforts

Processing time for **PROPOSAL APPROVAL** **decreased by 29 days** from 67 days to 38 days in the first quarter of FY95 (compared to previous three quarters)!

Processing time for **FUNDING APPROVAL** **decreased by 15 days** from 36 days to 21 days in the first quarter of FY95 (compared to previous three quarters)!

CRADA Award Cycle Comparison FY94 / FY95



Calendar of Events

January

M	T	W	T	F
2 Holiday	3 DOE's Small Business Technology Transfer program proposals submitted to OSRA for review	4	5 LBL, DOE OAK, and BSO WFO weekly status review of submitted proposals and awards	6
9 2:30 LLNL-East Bay Conversion & Reinvestment Commission (Dahlbacka x5358) DOE's Small Business Technology Transfer Program proposal deadline to DOE	10 British Petroleum visiting (Edwards x6601) DO/ER small busines initiatives meeting in Albuquerque (Davies x6461)	11	12 LBL, DOE OAK, and BSO WFO weekly status review	13
16 Holiday	17 ATP Public Meeting for the General Competition - NIST in Gaithersburg, MD (Dahlbacka x5358)	18 Technology Transfer Forum 10:00-11:30 am, B90, Rm1099 (Inada x4126)	19 Partnership for a new generation of vehicles (PNGV) (Dahlbacka x5358) UC Patent Coordinators Meeting (Wolinski x6463) LBL, DOE OAK, and BSO WFO weekly status review	20 Noon Lecture: The Coming Year in Washington - Reid Edwards (B50 Aud)
23	24 Jan 24-26: ARPA X-ray Lithography Meeting in Phoenix (Dahlbacka x5358)	25	26 Berkeley Entrepreneurs Forum "From Guns to Gadgets" (Fragiadakis x7020) LBL, DOE OAK, and BSO WFO weekly status review	27
30	31 National Industrial Competitiveness Through Energy, Environment, and Economics (Nice3) solicitation for financial assistance applications (Davies x6461)			

February

		1 R&D 100 Awards entries deadline (Davies x6461) Noon Lecture: Washington Update - Reid Edwards (B50 Aud)	2 LBL, DOE OAK, and BSO WFO weekly status review	3 Technology Reinvestment Program (TRP) solicitation issued (Dahlbacka x5358)
6 President's 1996 Budget expected to be released this week (Edwards x6601) Quick Response Projects, small CRADAs and Personnel Exchange selections expected to be announced this week (Kniel x5566)	7 Noon Lecture: The Global Management of R&D in US Companies - MIT Professor Eleanor Westney (B50 Aud)	8 Cosponsor for Application of LIGA Meeting for DOE mission (Dahlbacka x5358)	9 LBL, DOE OAK, and BSO WFO weekly status review	10
13	14	15 Technology Transfer Forum 10:00-11:30 am, B90, Rm 1099 Noon Lecture: Washington Update - Reid Edwards (B50 Aud)	16 LBL, DOE OAK, and BSO WFO weekly status review	17
20 Holiday	21 Feb 21-22: SPIE Lithography Meeting in San Jose (Dahlbacka x5358)	22 Feb 22-24: Government Conference on the Environment - LBL exhibits environmental technologies (Davies x6461)	23 LBL, DOE OAK, and BSO WFO weekly status review	24
27 Feb 27-Mar 3: 1995 Society of Automotive Engineers (SAE) International Congress and Exhibition in Detroit (Davies x6461)	28			

March

M	T	W	T	F
		1 Advanced Technology Program (ATP) proposal deadline (Dahlbacka x5358) Noon Lecture: Washington Update - Reid Edwards (B50 Aud)	2 Mar 2 - 3 Association of Federal Technology Transfer Executives meeting in San Diego (Fragiadakis x6467) LBL, DOE OAK, and BSO WFO weekly status review of submitted proposals and awards	3 ALS Crystallography Consortium (Dahlbacka x5358)
6	7	8	9 LBL, DOE OAK, and BSO WFO weekly status review	10
13	14	15 Noon Lecture: The Evolution of Information Infrastructures: The Competitive Search for Solutions - President AT&T Bell Labs John Mayo (B50 Aud) Technology Transfer Forum 10:00-11:30 am, B90, Rm 1099	16 LBL, DOE OAK, and BSO WFO weekly status review	17 TRP proposal deadline (Dahlbacka x5358)
20	21	22	23 LBL, DOE OAK, and BSO WFO weekly status review	24
27	28	29	30 LBL, DOE OAK, and BSO WFO weekly status review	31

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