

## John S. Toll Appointed URA President

On November 13, 1989, Universities Research Association, Inc. (URA), which operates Fermilab for the U.S. Department of Energy, announced that the URA Board of Trustees had appointed John S. Toll, Chancellor Emeritus of the University of Maryland, as URA's next President, effective December 1, 1989. Toll succeeds retiring President Edward A. Knapp, who is returning to Los Alamos National Laboratory to resume research in physics.

The announcement was made by John Marburger, Chairman of the URA Board of Trustees, at the November 13 meeting of the Board in Dallas. Marburger, who is President of the State University of New York at Stony Brook, said of Toll's appointment, "URA is remarkably fortunate that Dr. John Toll has agreed to serve as URA President. He is one of the outstanding university ad-

ministrators in this country and a highly respected physicist with great personal understanding of URA's mission. As Johnny Toll's successor at Stony Brook, I had a special appreciation for the caliber of the contributions he made to the university, and the Trustees' unanimous vote reflects our confidence in his leadership. He has had a career of exceptional achievement, which will now be turned to the benefit of URA, Fermilab, and the SSC. We are very pleased to welcome him to this new challenge."

Fermilab Director John Peoples said of the announcement, "Fermilab welcomes Dr. John Toll as the next President of URA. He will bring his energy and many years of experience to URA at the crucial turn in the history of Fermilab."

John Toll received his Ph.D. in Physics from Princeton University. In 1953, he became Chairman of the

University of Maryland Department of Physics and Astronomy prior to being named President of SUNY/Stony Brook in 1965. In 1978, he returned as President to the University of Maryland and was later named the first Chancellor of the newly reorganized 11-campus University of Maryland System. He continues to serve as Professor of Physics and Chancellor Emeritus at the University of Maryland.

John Toll has been actively involved in federal science advisory activities throughout his career, including terms as Chairman of the Federation of American Scientists and Chairman of panels for the National Science Foundation, the National Aeronautics and Space Administration, Princeton's Plasma Physics Laboratory, and the Congressional Office of Technology Assessment.

## New Computing Division Gearing Up

As Fermilab's new Computing Division begins moving forward, Division Head Tom Nash and his staff are implementing the new organizational tools that, in Nash's words, "will bring together computer-related activities that support the immediate and long-term needs of high-energy physics [at Fermilab]. Fermilab has been widely recognized for its successes in supporting its experimental program with accessible central computing, data acquisition tools and capabilities, and forward thinking computer developments. The new organization is to build on Fermilab's successes with the people that make up this dynamic [comput-

ing] community. Its driving goal is to establish a major center of excellence in the operation and development of computing and data acquisition for high-energy physics. This is a key pillar of Fermilab's long-term future."

Communication, both within the Division and between the Division and its clients, is seen as very important. Nash has instituted Strategy Management Teams to "determine a coordinated direction for the various interrelated activities of the Division. They will have heavy user participation and will be the primary management mechanism in the Division [and] will spawn working groups on specific issues," Nash

said. "We would prefer to think of our clients as participants in the strategic-decision-making process." These teams will be chaired by the three Associate Division Heads, Joel Butler, Irwin Gaines, and Jack Pfister. They will be "responsible for maintaining wide-open communications channels, with emphasis on those [channels] reaching outside the Division."

Butler is responsible for the Division's close relations with experimenters and other Division clients. He will also coordinate the activities of the Central and Distributed Computing Departments, chair-

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## Fermilab's Licensing Office Markets Fermilab Technology

Fermilab scientists and engineers have the opportunity to share in any royalties accruing from inventions derived from work done here at the Laboratory. Changes in federal legislation have made it possible for Fermilab and Universities Research Association (URA) to license the Laboratory's technological innovations to the private sector. Any ensuring royalties are shared by the inventor and Fermilab. On a sliding scale, Fermilab inventors will receive 50 percent of net royalties less than \$10,000 and 25 percent of net royalties of \$10,000 or more.

One immediate impact of these changes was to appoint, in November of 1988, John Venard as Fermilab's Licensing Officer in the Office of Research and Technology Application. Venard is responsible for the licensing out of patented and copyrighted innovations. He also participates in the broader Laboratory effort to transfer technology between Fermilab and private companies. "Part of my job is to market the Laboratory's technology," said Venard.

These incentives are possible because of the way organizations like URA are now involved in the patent and award process. "It is possible for URA, which is a Department of Energy contractor, to claim rights in a patent when it comes from work done by URA employees. URA can then license the patent to one or more companies," said Venard.

URA can also grant exclusive licenses to private companies. The government retains the right to practice the technology for its own use, but the license remains exclusive in the private sector. This is an incentive to businesses to establish licensing agreements with URA.

Such agreements are becoming increasingly important. The federal government is responsible for half

of the money invested in research and development in the United States every year, but only 20 percent of all yearly patent applications. Even fewer of those patents are licensed to profit-making companies. This means that there is new technology which is not being utilized by private industry, and therefore does not contribute to the country's gross national product.

It also means that labs - and taxpayers - may not be getting as much for their research and development investment as they can. "The whole idea," said Venard, "is to get more bang for the taxpayer's buck. To do that, we need to do a better job of getting the technology developed for federal projects out into industry. Commercializing this technology creates new products, services, and jobs, and will improve U.S. competitiveness in the international market."

A full-time licensing officer at the Lab makes that process easier. "The ideal situation for Fermilab," said Venard, "in the case of, for instance, a piece of specialized electronic equipment, is to locate a company that will take our specifications, based on a Fermilab prototype, bid it, build the equipment, and supply it to us along with the needed support (spare parts, maintenance, and so forth). At the same time, they can adapt that product to their other markets and make it a routinely offered catalog item. That's great technology transfer because everyone wins. That's how the process is supposed to work.

"The inventors and developers share in the royalties that come back to URA through licensing," said Venard. "We would anticipate that URA's part of that money would be used to support additional licensing, marketing, and technology transfer activities which we hope will eventually become self-supporting."

- Christine Grusak

### Tech-Transfer Seminar Stimulates Cooperation

William A. Kropp, Director - Technology Acquisition for E.I. Du Pont de Nemours & Company, was the speaker at a Technology Seminar sponsored by Fermilab's Office of Research and Technology Assessment (ORTA). Du Pont has recently joined Fermilab's Industrial Affiliates organization.

The seminar, something of a "local" version of the yearly Industrial Affiliates Meetings, was held to encourage awareness on the part of Fermilab staff toward Laboratory-industry cooperation.

After giving attendees a brief descriptive "snapshot" of Du Pont, Kropp outlined his efforts to nurture a program of technology- and resource-sharing between his company and the national laboratories. Focusing his attention on major national laboratories, Kropp is attempting to discover and acquire for Du Pont new technology by creating bridges of cooperative research, licensing, and training.

In his dealings with the Idaho, Oak Ridge, Los Alamos, Argonne, and Lawrence Livermore national laboratories, among others, Kropp has noticed a heightened effort toward the transfer of technology to industry, and increased competition in the technology-transfer arena between federal labs.

Proving Kropp's assertion that increased person-to-person interaction between representatives of industry and federal research opens new avenues of cooperation, members of the audience at the seminar were quick to discern potential common research opportunities in fiber optics, molecular orbitals, and environmental research.

Fermilab staff with ideas on research cooperation in any area are encouraged to call the ORTA at ext. 3333.



## Be on the Lookout for SBIR Opportunities

The U.S. Department of Energy's (DOE) Office of Energy Research in the Division of High Energy Physics has issued its eighth annual solicitation for proposals for Small Business Innovation Research (SBIR) grants. This program will fund roughly 100 Phase I proposals from small businesses (500 employees or less) for up to \$50,000 over a 6-1/2 month period for feasibility studies of the proposed concepts. About 50 or 60 of these will continue into Phase II, the principal R&D effort, funded at up to \$500,000 over a two-year period. Funds for the SBIR program are supplied at the level of 1.25 percent of the extramural budget for R&D from various federal agencies. In 1990, the High-Energy Physics and Superconducting Super Collider programs will be contributing approximately \$7 million for the SBIR program.

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ing the Offline Computing Strategy Meetings and coordinating offline computing activities.

Gaines will coordinate the Division Management Teams and the project-review process. He will also coordinate Data Acquisition R&D activities and chair the Data Acquisition Strategy Meetings.

Pfister is charged with leading the effort to track technology and identify relevant advanced system and collaborative R&D opportunities in industry and computer science, and then coordinating the above with the activities of the computing departments. He will chair the Technology Tracking/Computer R&D Strategy meetings, coordinating computer R&D.

"We recognize that the need to move toward evolutionary requirements implies that we must have a continuing, intimate relationship between the Division's support elements and the end user," Nash said.

Over the course of the SBIR program, a number of very successful projects have grown out of high-energy physics. Among them are IGC/Advanced Superconductors, Inc., a Fermilab Industrial Affiliate, for "Ultrafine Filament NbTi Superconductors"; NYCB Real-Time Computing, also an Affiliate, for "Development of a Low-Cost Clustered VAXBI FAST-BUS Interface"; and "Single Crystal Fibers of Bismuth Germanate for Scintillation Detectors" from Laser-Genics Corporation.

Fermilab's Office of Research and Technology Application (ORTA) encourages Fermilab employees to make small businesses that supply the Laboratory aware of these grants. As stated in DOE's recent letter to Fermilab Director John Peoples, "In many cases, a critical element in a winning SBIR proposal has been the suggestion by

"We are aware that we cannot know in advance of a major and complex activity what the activity is going to require."

Charged with seeing to it that the Division and its users understand such evolving requirements is the ACCESS Liaison Group, attached to the Division Office. This group will facilitate a wide-open communication channel between the Division and Fermilab's experimenters (and other Division clients).

The Division's table of organization reveals five new departments. The Central Computing Department, headed by Peter Cooper, will oversee operation of Fermilab's in-place major shared central computing resources, as well as any future Unix-based centralized production systems.

The Distributed Computing Department, headed by Al Thomas, has responsibility for local and area networks and other communication; operation of central DST analysis

a research scientist or engineer to a suitable small business of a need for new instrumentation or technology. Very much in line with the philosophy of the SBIR program, this catalytic action on the part of active researchers has helped interested and competent small businesses develop superior proposals."

For more information on the SBIR program, contact the ORTA at ext. 3333, MS 200.

The due date for receipt of proposals is January 23, 1990. Copies of the current SBIR solicitation can be obtained by writing to: SBIR Program Manager, U.S. Department of Energy, Washington, D.C. 20545 or by calling (301) 353-5707. Questions about the program can be directed to Ms. Gerry Washington, SBIR Spokesperson, (301) 353-5867. Detailed technical questions are handled by Mr. Ronald Toms, SBIR Program Officer, (301) 353-2900.

farms and the VAX Clusters; support for departmental clusters, workstations, networked PC's, and other peripherals; and maintenance of VAX, Unix, and related software.

There are two Data Acquisition Departments. The Data Acquisition Support Department, led by Vicky White, includes PREP, which is presently responsible for online and data acquisition systems for the forthcoming fixed-target run.

The Data Acquisition Electronics Department, under Ed Barsotti, is presently participating in silicon detector readout development and study of a high-speed DAQ switch.

The Computing R&D Department (Joe Biel, Head), is descended from the Advanced Computer Program (ACP). It is developing ACP II software and hardware and the ACPMAPS lattice gauge processor.

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Percentage increase, since 1979, in the average size of a turkey's breast: 22



## Blood Drive at Lab

The Heartland Blood Center Drive will be set up for blood donors in the Wilson Hall 1 West Conference Room on December 13, 1989, from 9:00 a.m. to 2:00 p.m. For further information, call Sharon Koteles at ext. 3598.

## NALREC News

Our **Thanksgiving Social**, held on November 17 at the Village Barn, was a great success, thanks to the good food and the DJ putting us in the holiday spirit. Ed Justice and Mike Urso deserve a pat on the back.

Tickets are on sale right now for the **Formal Christmas Dinner Dance** to be held in the Atrium on December 16. This is a first come, first served occasion. Don't wait too long as tickets are going fast. Contact Jo Baaske, ext. 3046.

The **Children's Christmas Party** will be held in Ramsey Auditorium on the 10th of December. John Satti, who always hosts this party, promises a better party this year than last (and that one was fabulous). Bring all the kiddies for refreshments, Santa, and more.

The **Employees' Christmas Party** at the Village Barn will be held on December 21. The committee is planning for a live band with great food and fellowship to end our calendar year. Watch the posters for more details.

Please plan your social calendar around these events.

Until next time. . . remember, NALREC has terrific Fermilab sweat shirts on sale at the front desk in the Atrium. Doesn't this sound like a perfect Christmas gift for someone on your list?

- Trudy Kramer

Number of days that an ant can survive underwater: **14**

The Fermilab Employment Office does maintain a copy of the job opening list for the SSC Laboratory. At one time we tried posting the list, but it was frequently removed from the bulletin board of WH15E. So, as an alternative to making a new copy each morning, the list is available at the Employment Office reception desk. Anyone wishing to see "how many" and "what types" of posts are available is welcome to stop by and review the list.

## Activities Office

### Karate

Do you need something to keep you in shape for the upcoming long winter months? Why not join the Tae Kwon Do karate class at the Fermilab Recreation Facility and learn a lifelong skill.

Tae Kwon Do is the Korean form of self defense and is an excellent way to keep in shape both mentally and physically. The classes are held on Monday, Wednesday, and Friday from 5:00 p.m. to 6:00 p.m. in the gymnasium. The karate classes are open to all Fermilab employees and guest researchers and their immediate families ages 12 and up. Beginners are welcome. Classes are offered year-round. The cost for each ten-week session is \$40.00. For more information call Jean Guyer, ext. 3126. Class participants must be gym members. - Jean Guyer

### ACU Seeks Board Members

The Argonne Credit Union Nominating Committee is seeking volunteers to serve as members of the Argonne Credit Union Board of Directors. Written information and application packets are available at the Credit Union office, Wilson Hall 1 West. Applications will be accepted until November 30, 1989.

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### FOR SALE

#### Motorized Vehicles:

1986 CHEVY ASTRO CARGO VAN, 70,000 miles, 4.3-liter V-6, AT/PS/PB, tilt steering, cruise control, AC, power windows and locks, AM/FM/cassette, factory tow package, class-III Reese hitch, \$6900 or best offer. Call Ray at (815) 727-0161 or ext. 3428.

1980 TOYOTA COROLLA, runs well, \$800 or best offer. Call Steve at ext. 3286 or 653-3036.

#### Miscellaneous:

SOFTWARE: Scores of new or almost new software packages for sale at 65-90% off list price. Many Atari-ST and Macintosh titles. A few IBM, Amiga, and Atari 8-bit titles. Call John at ext. 4774 10:00 a.m. to 12:00 noon.

COFFEE MACHINE, restaurant style, two-burner w/hot-water tap and connection for water line, never used, with manual and papers, \$500 new, selling for \$150 or best offer. ELECTRIC RANGE, double oven, self cleaning, w/Versatronic microwave in bottom oven and built-in vent hood, \$1300 new, selling for \$500 or best offer. GAS RANGE w/griddle, four burners, \$50. STORAGE TRAILER, tandem axel, elec. brakes, 4000 mi. on tires, 12,000 mi. on trailer, box dimensions 7 ft high x 12 ft, 2 in. long x 6 ft 1 in. wide; overall: 9 ft x 15 ft 8 in. x 8 ft, \$2000 invested in materials when built, asking \$1500 or best offer. Call Mark at ext. 3239 or 2953.

### WANTED

OLD ISSUES OF GEOWORLD. Please call Graciela at ext. 4645.

### FOR RENT

FLORIDA-KEYS CONDO, available 12/24-12/31, ocean-side, pool, hot tubs, \$450. Call Jim at (414) 629-9886.

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