



## Synakowski Named American Physical Society Fellow

**P** PPL physicist Edmund Synakowski was recently named a Fellow of the American Physical Society (APS). Synakowski was recognized for his work in fusion energy research concerning heat retention in plasmas.

Synakowski received the lifetime appointment from the APS's Division of Plasma Physics during the October APS meeting held this year in Quebec. The APS rules limit the maximum number of Fellows selected each year to be no more than half of one percent of the Division membership.

Martin Peng, Program Director of the National Spherical Torus Experiment (NSTX) at PPPL, said, "Ed brings an outstanding understanding of toroidal confinement physics and a professional approach to the on-going research program on NSTX. I look forward to working with him to bring about excellent science and performance from the NSTX

plasma." Synakowski is Deputy Program Director of NSTX. He received a bachelor's degree in physics from the Johns Hopkins University in 1982, graduating with Departmental Honors and receiving the Donald Kerr Memorial Medal for excellence in physics. Synakowski received a Ph.D. in physics from the University of Texas at Austin in

1988, the same year he joined the research staff at PPPL. He is a recipient of this year's Kaul Foundation Prize for Excellence in Plasma Physics and Technology Development, an award given by Princeton University to a PPPL employee. ●



Ed Synakowski

## PPPL Spot Award Program Implemented

**S**o often, it's the little things that make a big difference. To recognize and reward those individual staff members who have made short-term extraordinary contributions or accomplishments, the Laboratory recently initiated the Spot Award Program. These contributions typically occur over the course of several weeks or months.

"There are employees who come to work every day and make extraordinary contributions and we didn't have a mechanism for rewarding that effort until the Spot Award," said Human Resources Deputy Head Susan Murphy-LaMarche.

This award is for those who have excelled in resolving complex problems leading to improvement or innovations resulting in cost savings, increased productivity, efficiency of operations, higher morale, and safety. "The Spot Award is our way of saying 'thank you,'" explained Murphy-LaMarche. Excellent performance will continue to be recognized during the annual merit review cycle.

Each honoree will receive a certificate and a \$100 net award. Up to 25 Spot Awards will be granted during the

fiscal year and may occur at any time throughout the year. Nominations are prepared by the proposed recipients' immediate supervisors, who will submit them to their Department Heads for approval. Nominations must explain the exceptional nature of the nominee's accomplishments and how they meet the criteria for the award.

Murphy-LaMarche noted that the award gives managers an opportunity to look for unique contributions made by their staff members. It also encourages employees to make supervisors aware of co-workers' contributions.

The following staffs are eligible: Senior Laboratory and Shop, all grades; Laboratory and Shop, all grades; Office Support, all grades; Research, Grades 1-4; Engineering and Scientific, grades 3-8; and Administrative, Grades 1-9.

The Spot Award nomination form is on the PPPL Employee Information Services web site by going to Human Resources and then to Compensation (<http://hr.pppl.gov/PPM/comp.htm>). For more information about the award, please contact Human Resources at ext. 2220. ●



# A Tribute to Mel Gottlieb, Former PPPL Director

**F**ormer PPPL Director Melvin B. Gottlieb, an international leader in the field of research on fusion energy, died on December 1 in Haverford, Pennsylvania. He was 83.

Gottlieb, Director of PPPL from 1961-1980, was known for his tireless dedication to the fusion concept and for his constant inspiration to the fusion program worldwide, as well as for his leadership and for being the consummate “people person.”

“Mel was deeply loved at PPPL. My warmest memory is of his support for me as a graduate student, struggling to help Harold Eubank with the neutral injection experiments on the ATC [Adiabatic Toroidal Compressor] machine, around 1975. His calm assurance and easy good humor seemed to suggest that we would, indeed, get the needed ‘typical data,’ sooner rather than later,” recalled PPPL Director Rob Goldston.

Added Advanced Projects Head John Schmidt, “When I came to PPPL, I decided to accept a postdoctoral position here rather than more lucrative and permanent positions at other fusion laboratories. A significant reason for this was the impression Mel left on me. I obviously have never regretted the decision. Mel stood very tall physically, as a scientist, and as a fusion leader.”

During his 26-year association with PPPL, Gottlieb saw the Laboratory grow from a small contingent of investigators to a full-blown experimental facility on the leading edge of magnetic fusion research. Under his leadership, the Laboratory’s budgets expanded from \$7 million during the early 1970s to \$100 million in 1980. Said former PPPL Director Harold Furth, “I think of Mel as a benign gravitational force, which held world fusion research together during its most thriving years.”

Throughout the growth of research projects, budgets, and staff, Gottlieb stressed the importance of explaining to



Melvin B. Gottlieb

the layperson what fusion scientists were doing and why they were doing it, without using highly technical language. “Since we are publicly supported, we have a duty to the public to make our ideas clear, our hopes clear, our dreams clear,” said Gottlieb in 1980.

Asked then about the nation’s energy options, he answered, “The long-term solutions for energy are: fission, fusion, and solar. The question has always been: How much is it going to cost? If it costs ten times existing levels, we’re obviously going to have a great deal of trouble supporting present population levels at the present standard of living. The attainment of an economic, environmentally acceptable energy source is of enormous importance for the future of mankind.”

Gottlieb led the Laboratory at an exciting time. In the mid-1960s, initial experimental results from the Soviet Union pointed to a new path to the very high-temperature plasmas needed for making fusion energy. Under Gottlieb’s leadership, the Laboratory took the international lead in extending these results, passing quickly through three generations of highly successful tokamak experiments. The Tokamak Fusion Test Reactor, whose construction started under Gottlieb, produced a world-record plasma temperature of 510 million degrees centigrade and a record 10.7 million watts of fusion power.

PPPL Advanced Reactor Concepts Head Dale Meade said, “Mel Gottlieb left a legacy of plasma science and scientists that will carry the torch of plasma physics and fusion energy forward for generations to come. Mel’s wisdom and guidance were crucial in leading the U.S. fusion program from the shadows of the post-World War II era through the turbulence of the 1960s into the energetic fusion program of the 1980s. Mel’s personal warmth and genuine concern nurtured and inspired generations of scientists and staff at the Princeton Plasma Physics Laboratory. We will miss him greatly, and we will remember him always as an inspiring leader, an insightful scientist, and a close personal friend.”

Indeed, Gottlieb, known as “Mel” to everyone, is remembered as much for his warm personal style as for his insightful scientific leadership. His thoughtfulness and calm — often expressed by putting his reassuring arm around the

## HOTLINE

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shoulder of an over-stressed researcher — is a cherished memory at PPPL.

“Mel was one of the finest people I have ever had the pleasure of meeting and working with. There just are not enough words to express what a great person he was. He will be deeply missed by all who knew him,” said PPPL Benefits Manager Bobbie Forcier.

Information Services Head Anthony DeMeo recalled Gottlieb as a kind man who openly cared about the welfare of PPPL staff members. “Mel had a unique sensitivity to the feelings and problems of his staff. For example, if he learned that you or a member of your family was ill, he never forgot to ask how things were going,” DeMeo said.

Cathy Howard, now retired, was Mel’s administrator from 1974 through 1980 and she adds: “I spent 6 years by Mel’s side. He was a warm and compassionate leader who believed in equality and practiced it by conducting an “open door” policy for all, regardless of position or stature in the organization. There was always time, even during the busiest of schedules, for a kind word to put in perspective an individual’s view of his or her problem. I remember during a very hectic and stressful period of time at the Lab when Mel walked me to the large office window which overlooked the adjacent woods and said “Cathy, everyone should take time to smell the roses.” He touched many lives in this way, and, he occupied a very important chapter in my life. He will be missed by all who had the privilege of knowing him.”

Gottlieb, who was educated at the University of Chicago and also had been Professor of Astrophysical Sciences at Princeton University, devoted considerable time during his career to working toward better understanding and cooperation with other nations in the development of fusion power. The fusion program at Princeton was classified until 1958. Thereafter, the program became international, involving cooperation

and sharing of information. Laboratory personnel including Gottlieb made frequent trips to meet with scientists abroad and encouraged extended visits here by foreign scientists.

During his tenure as Director at PPPL, Gottlieb was also involved in high-level discussions with government officials responsible for energy policy in many countries, including France, England, Germany, Italy, Norway, Japan, China, South Korea, Spain, Brazil, Canada, U.S.S.R., and the European Economic Community. He was a member of the U.S. Fusion Power Coordinating Committee; the U.S.-U.S.S.R. Joint Committee on Atomic Energy; the U.S.-People’s Republic of China Committee on Fusion Coopera-

tion; and the U.S.-Japan Fusion Cooperation Committee. In 1971, he was a recipient of the North Atlantic Treaty Organization Senior Foreign Fellowships in Science.

At the national level, Gottlieb was active in many organizations whose purposes included finding alternative safe sources of energy. He had a long association with the American Physical Society and was founder and first chairman of its Plasma Physics Division. In 1980, he was Vice Chairman of its panel on Public Affairs. He was also a member of the American Nuclear Society and of Scientists and Engineers for Safe Energy.

After his retirement from the Laboratory, Gottlieb continued consulting in his field and, from 1980-1992, served as Chairman of the Nuclear Oversight Committee of the Public Service Electric and Gas Company of New Jersey.

Gottlieb is survived by his wife, Golda, of Haverford, Pennsylvania, whom he married in 1948; his daughter, Paula Bastian, of Cedar Run, New Jersey; two grandchildren, Will Bastian and Mary Kate Bastian; and two nephews, David and Edward Mehlman, of Chicago. He was predeceased by his daughter, Martha, who died in an automobile accident in 1986. A memorial service in Princeton is pending. ●



Photo by Denise Applewhite

*Melvin B. Gottlieb is pictured with employees of PPPL, where he was Director from 1961 through 1980. Gottlieb's hand rests on a torus, representing the donut shape of the magnetic confinement chambers used in fusion research during his tenure.*





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# Holiday Party

Friday, December 22

Noon – LSB Lobby and Cafeteria

➤ **FREE LUNCH** ➤

Hot Main Courses • Pasta • Soup and Salad • Homemade Desserts

**LIVE BAND – RAFFLE**

*Open to Everyone at the Lab!*

## Holiday Schedule

The Laboratory will be closed Monday, December 25, 2000 through Monday, January 1, 2001 in observance of the Christmas and New Year's holidays. The Laboratory will reopen on Tuesday, January 2, 2001. The dates of the Laboratory holiday schedule are as follows:

Monday  
Tuesday  
Wednesday through Friday  
Monday  
Tuesday

**December 25**  
**December 26**  
**December 27 – 29**  
**January 1**  
**January 2**

University Holiday  
University Holiday  
Laboratory Closed  
University Holiday  
Return to Work

All staff members will have the option of charging the three (3) "Laboratory Closing" days (December 27, 28, and 29) as vacation, or they may use their two (2) Optional Holidays in conjunction with a vacation day. Those who anticipate special problems are urged to talk to their supervisor or to contact the Human Resources Office as soon as possible. ●

