Special Section

The Nobel Prize
Wed., October 6, 2004

Distinguished Profs. Avram Hershko (l) and Aaron Ciechanover hold an impromptu news conference after the announcement of their 2004 Nobel Prize in chemistry.

Prof. Hershko and his wife Judith celebrate with their grandchildren.

Prof. Ciechanover, his wife Menucha and son Tzachi are elated by the news.

THE CEREMONY
Distinguished Profs. Hershko and Ciechanover each received the Nobel medal and diploma, shook the king’s hand, then bowed to the king, to the members of the Royal Swedish Academy and to the cheering crowd.

THE BANQUET
More than 200 waiters served 65 tables decorated with 23,000 flowers.
**Thurs., October 7**
The laureates are congratulated by H.E. Robert Rydberg, the Swedish ambassador to Israel (c).

**Thurs., October 28**
Members of the Technion Faculty of Medicine cheer the Nobel laureates at a special reception.

**Tues., November 9**
Israel President Moshe Katsav (c) hosts the laureates at his residence in Jerusalem. More than 100 guests from the Technion, the National Academy of Sciences and the Israel Ministry of Education attended.

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**Behind the Scenes in Stockholm**

Consider for a moment the number of people involved in the momentous and glamorous Nobel Prize ceremony and banquet. Each year, some 35,000 Swedish students enter a lottery to determine who will become one of the 250 ushers who escort the 1,300 guests—from Swedish royalty to the ten Nobel laureates and their families. An additional 2,000 people on a waiting list arrive in Stockholm coiffed and ready to go, but are not selected to attend.

All is done in the name of Alfred Nobel, the Swedish scientist and businessman best known for inventing dynamite in 1866 and for establishing a fund to recognize the world’s most worthy innovators in chemistry, medicine, physics and economics, literature and peace.

This year, as always, the gowned and tuxedoed guests filled every seat of the grand auditorium of the Stockholm Concert Hall, where they watched King Carl Gustav XVI bestow the prizes. Technion Profs. Aaron Ciechanover and Avram Hershko received their chemistry prizes exactly as rehearsed: each took the medal and diploma with his left hand and shook the king’s hand with his right, then bowed to the king, to the members of the Royal Swedish Academy, who selected them, and to the cheering crowd. The ceremony was interspersed with musical interludes and short speeches by Swedish professors who introduced the recipients and their work.

The laureates and guests were then transported to glittering Stockholm City Hall and seated for the gala banquet in the Blue Hall, where King Gustav raised his glass to the winners. Anxious photographers were given just four minutes to capture the event. More than 200 waiters served 65 tables decorated with 23,000 flowers. The meal lasted three hours, after which one laureate from each category rose to represent his group. Prof. Hershko spoke on behalf of his fellow laureates, Technion Prof. Aaron Ciechanover and Dr. Irwin Rose of the University of California, Irvine.

“It is rare that the prize is given to a team of three where each one represents a different generation,” Prof. Hershko said. “Our team consists of a biochemist (myself), my research graduate student at the time of the discovery [Aaron Ciechanover] and my host and partner in the U.S. [Irwin Rose]. This prize is the result of our complementary talents, along with the tremendous efforts of dedicated research groups in Haifa and the United States. We thank the Royal Swedish Academy of Sciences for once again recognizing the intimate relationships among chemistry, biochemistry, physiology and medicine.”
“We couldn't have done it without the support of the American Technion Society.”

Professor Aaron Ciechanover
2004 Nobel Laureate
“We are very grateful for the years of encouragement and support from the American Technion Society, which were so vital to our success.”

Professor Avram Hershko
2004 Nobel Laureate
Tues., November 9

Israel Prime Minister Ariel Sharon (l) congratulates the Technion Nobelists on behalf of the State of Israel and awards them with Knesset Medals.

Tues., November 17

Prof. Hershko addresses a capacity crowd at a campus-wide celebration attended by Technion faculty, staff and students. It was broadcast live on the Technion Web site.

In Stockholm

Following a Nobel tradition, a wooden chair was signed by Prof. Ciechanover at the Nobel Museum.

“I congratulate the Technion on its recent Nobel Prize. There is no doubt that the Technion is playing a fundamental role in the leading edge of science in many areas.”
Elias A. Zerhouni, M.D.
Director, National Institutes of Health

“The Nobel selection tells the rest of the world that the Technion is in the first tier of global science. The Cleveland Clinic has derived significant benefit from its research collaboration with the Technion. Other institutions will quickly learn of that value and will pursue it themselves.”
Chris Coburn, Executive Director
Cleveland Clinic for Innovations

The Mirochnicks and Prof. Hershko

When the late Bernard Mirochnick attended his first ATS meeting at a community center in Milwaukee in the 1980s, little did he know that his name would be associated with Israel’s first Nobel scientist, Prof. Avram Hershko.

“I spoke to a group at the center and Bernie was in the back of the room. He approached me after the meeting and made a substantial commitment to the Technion,” said Leonard Sherman, past ATS president.

That gift was followed by many others to the Technion and led to his support of the Bernard Mirochnick Chair in Life Sciences, held by Prof. Hershko. An active member of the ATS West Central Region, he also funded the Bernard and Louise Mirochnick Fellowship Fund and the Bernard Mirochnick Family Gym.

In 1983, he was honored with the Albert Einstein Award, the highest ATS honor.

Mr. Mirochnick’s involvement with Jewish causes grew and continued when he moved with his second wife Maruka, to Boca Raton, Fla. They visited the Technion in 1991 and were impressed with the campus, the students and faculty.

“Bernard would have been so proud of Prof. Hershko’s Nobel Prize but he would not have been surprised. He knew all along that the Technion was the place to support Israel’s science and technology leaders,” said Mrs. Mirochnick.

U.S. Nobel Prize-winning institutions among which the Technion can now be counted:

Nobel Prize in Chemistry
2003
Johns Hopkins University School of Medicine
Rockefeller University
Howard Hughes Medical Institute

2002
Virginia Commonwealth University
The Scripps Research Institute

2001
The Scripps Research Institute

2000
University of California, Santa Barbara
University of Pennsylvania

1999
California Institute of Technology
Wed., December 8
The Technion professors are joined by fellow laureate, Dr. Irwin Rose of the University of California, Irvine (c), for a series of academic lectures presented at Stockholm University.

Wed., December 8
The laureates join Meir Horden, the chief rabbi of Stockholm; Avi Manor, the Israeli ambassador to Sweden; and members of the local Jewish community for a Chanukah candlelighting celebration including song and dance.

Fri., December 10
(l to r) Prof. Peretz Lavie, Technion vice president for Resource Development and External Relations; Prof. Yitzhak Apeloig, Technion president; and Henry Taub, former chairman of the Technion International Board of Governors, donned special tuxedos for the Nobel ceremony and festivities.

The Polaks and Prof. Ciechanover

David Polak and his wife, Janet, of Los Angeles, Calif., have had a long-standing commitment to Israel through several organizations. But perhaps their most memorable support will be of the Technion where they funded the David and Janet Polak Chair in Life Sciences. That chair is being held by 2004 chemistry Nobel laureate Prof. Aaron Ciechanover of the Technion Faculty of Medicine, a researcher at the recently established David and Janet Polak Center for Cancer Research and Vascular Biology.

The Polaks’ ATS membership dates back to 1991 when they established the Janet and David Polak Perpetual Undergraduate Scholarship. In 1992, during a trip to Israel they had the opportunity to visit the Technion while in Haifa.

“We were quite impressed with everything we saw,” Mrs. Polak said. “We met Russian students, visited start-up companies, and spent a day with [then] Technion President Ze’ev Tadmor. After that, we decided to get more involved.”

The Polaks soon thereafter created the David and Janet Polak International Conferencing Center at the Coler-California Visitors Center and became active in the ATS Southern California Chapter, where Mr. Polak served as president. He is currently the chairman of the Western Region. Mr. Polak is a member of the ATS National Board of Directors Investment Committee, as well as the Technion International Board of Governors. He became a Technion Honorary Fellow in 2001.

“When we established the life sciences chair, we didn’t know which professor would hold the position,” Mrs. Polak said. “But when we visited the Technion again in 1995, President Tadmor said they had an outstanding scientist for the chair.”

Soon after that visit, Prof. Ciechanover contacted the Polaks and met them while he was in Los Angeles. Since then they have visited each other in Israel and the United States and have kept in touch via email. The Polaks were aware that Prof. Ciechanover was being considered for the Nobel for his joint discovery of the ubiquitin system and its role in understanding cancer, particularly because of his receipt of the prestigious Lasker Prize, often the precursor to the Nobel Prize. But the announcement still came as a surprise to them.

“Totally shocked, surprised, quite excited,” is Mrs. Polak’s description of her reaction to the news of Prof. Ciechanover’s achievement. “It’s particularly special to be recognized as one of the first Israeli scientists to receive the Nobel.”

The Polaks agree that the Nobel prizes for Profs. Ciechanover and Avram Hershko could only add to the Technion’s prestige.

“This focuses people on Israeli science and technology, which is continuing to provide innovative scientific discoveries,” Mr. Polak said. “This is an important part of the present and future of the Israeli economy.”

To help ensure that bright future, in May the Polaks will travel with family, friends and supporters from Los Angeles to the Technion to dedicate the David and Janet Polak Center for Cancer Research and Vascular Biology, of which Prof. Ciechanover will be an important part.
A Noble Future

When Distinguished Technion Profs. Aaron Ciechanover and Avram Hershko received the 2004 Nobel Prize in Chemistry, it was the culmination of years of work. But neither man sees this milestone as an end, but as a beginning for them and the Technion. For Barak Freedman, Tal Schwartz and Helena Lankin, three bright and ambitious graduate students who are receiving ATS support, this too may just be the beginning... of noble, Nobel achievements.

Barak Freedman embodies the Technion's multi-disciplinary approach to science and technology. He received two bachelor's degrees from the faculties of physics and materials engineering, and is now pursuing his doctorate in physics, researching non-linear optics in the laboratory of Prof. Mordechai Segev. At the same time, he is working to complete his master's degree in business.

Though he is undecided about whether he’ll pursue a career in academia, business or high technology, Mr. Freedman knows that “science and high technology are the driving forces of Israel’s economy,” and that “Israel’s main and best source for scientists and engineers is the Technion.” Mr. Freedman hopes to “do well and contribute both to Israel and the Technion, either by doing good science or developing the high-tech industry.”

Tal Schwartz is also a doctoral candidate studying under Prof. Mordechai Segev in the Faculty of Physics. Before he began his undergraduate work at the Technion, Mr. Schwartz was a musician who “never could have guessed” he would someday be working toward a doctorate in non-linear optics, the physics of interactions between light waves and matter. But thanks to dedicated teachers at the Technion, Mr. Schwartz discovered within him a passion for a new kind of art—in science. After he received his bachelor’s degree in physics, Mr. Schwartz returned to the faculty for his doctorate.

Already a teaching assistant, Mr. Schwartz hopes to return to the Technion as a professor to “raise the next generation of scientists.” He adds: “I hope to pass on to them the same excitement about physics that others have instilled in me. I also hope that I will make my own contributions to the university, to Israel and the world.”

Helena Lankin is already armed with two Technion degrees, working on her third, and is poised to become an Israeli pioneer in the field of organic chemistry. Having received her bachelor’s degree in molecular biochemistry and a master’s degree in organic chemistry, Ms. Lankin currently is pursuing her doctorate in the Faculty of Chemistry with Prof. Ilan Marek. They’re working to develop new chemicals that will enable and simplify the preparation of natural drugs. Prof. Marek’s laboratory is a long way from Ms. Lankin’s native Russia, from which she moved when she was 12. Today, Ms. Lankin is proud to study at the Technion, which she describes as “one of the most powerful research centers in the world.” Ms. Lankin adds: “The Technion already provides Israel with its best scientists. As home to two Nobel laureates, its scientific level should rise even further.”