A Nobel

The Nobel Prize is awarded annually in recognition of achievements in the fields of medicine, physics, literature, and chemistry, as well as for peace. Since 1901, the best and brightest minds across the globe — 776 of them, in fact— have had the distinct privilege of being honoured by the Swedish Nobel Committee for their work and efforts in these fields.

The International Atomic Energy Agency and its Director General, Mohamed ElBaradei, were awarded the 2005 Nobel Peace Prize. Although this is a tremendous achievement for the Agency, it is by no means an isolated one within the UN family. The IAEA award is the eighth time the United Nations or partner international organization has won the Peace Prize. UN Secretary-General Kofi Annan and the UN shared the 2001 prize; the UN Peacekeeping Forces were honored in 1988; the UN Children´s Fund (UNICEF) in 1965; the UN High Commissioner for Refugees in 1981 and 1954; and the International Labor Organization in 1969. The late UN Secretary General Dag Hammarskjold won the prize posthumously in 1961.

Several other Nobel Laureates have also had strong ties and close relationships with the IAEA, demonstrating the value of the Agency's work.

Isidor Isaac Rabi

1944 Nobel Prize for Physics "for his resonance method for recording the magnetic properties of atomic nuclei."

American physicist who was awarded the Nobel Prize for Physics in 1944 for his invention (in 1937) of the atomic and molecular beam magnetic resonance method of observing atomic spectra. Mr. Rabi's most important scientific work was his development (in the 1930s) of a method for measuring the magnetic properties of atoms, atomic nuclei, and molecules. His method provided the central technique for virtually all molecular and atomic beam experimentation.

Mr. Rabi was a member of the IAEA Scientific Advisory Committee in the early 1960s. (b.1898 – d. 1988)

Hans Albrecht Bethe

1967 Nobel Prize for Physics "for his contributions to the theory of nuclear reactions, especially his discoveries concerning the energy production in stars."

German-American physicist who won the 1967 Nobel Prize in Physics for his discovery of stellar nucleosynthesis. His passion for physics took him first to the Massachusetts Institute of Technology—where he worked on microwave radar—and then to the Los Alamos Scientific Laboratory, which was engaged in assembling the first atomic bomb. Much of Mr. Bethe's work focused on the theory of atomic nuclei. Over the course of his professional life, he worked and collaborated with other physicists on: deuteron theory, nuclear reactions, atomic physics, collision theory, and solid-state theory.

Mr. Bethe was an ardent supporter of the International Centre for Theoretical Physics (ICTP), which operates under the authority of the IAEA, UNESCO and the Italian federal government. (b.1906 – d.2005)

Burton Richter

1976 Nobel Prize for Physics "for pioneering work in the discovery of a heavy elementary particle of a new kind."

American physicist who shared the 1976 Nobel Prize in Physics with Samuel C.C. Ting for the discovery of a new type of heavy elementary particle. Mr. Richter became a physics professor at Stanford in 1967, and went on to work as a director of the Stanford Linear Accelerator Center. His research focused on experimental particle physics and colliding beam technology.

He gave the opening speech and participated in the Scientific Forum at the 2005 IAEA General Conference. (b.1931) See his article on page 14.

Abdus Salam

1979 Nobel Prize for Physics "for contributions to the theory of the unified weak and electromagnetic interaction between elementary particles, including, inter alia, the prediction of the weak neutral current."

Prof. Salam, a Pakistani theoretical physicist, taught mathematics at Punjab University and has been a science policy advisor for Pakistan. He was also

House

a professor of theoretical physics at the Imperial College of Science and Technology in London. His work mainly focused on exploring the relationship between electromagnetic force and weak nuclear force.

Prof. Salam created the International Centre for Theoretical Physics— which operates under the authority of the IAEA, UNESCO and the Italian federal government—to encourage professional communication between scientists. (b.1926 – d.1996)

Carlo Rubbia

1984 Nobel Prize for Physics "for decisive contributions to the large project, which led to the discovery of the field particles W and Z, communicators of weak interaction."

An Italian physicist who shared the 1984 Nobel Prize in Physics with colleague Dr. Simon Van der Meer. Mr. Rubbia worked at Columbia University in the United States researching particle accelerators. He later moved back to Europe to experiment with weak interactions at CERN, the world's biggest particle physics laboratory. He served as Director General of CERN from 1989 to 1993.

Mr. Rubbia was the opening speaker and participant at the 2004 IAEA General Conference Scientific Forum. (b.1934)

Russell A. Hulse

1993 Nobel Prize for Physics "for the discovery of a new type of pulsar, a discovery that has opened up new possibilities for the study of gravitation."

An American physicist who was awarded the 1993 Nobel Prize in Physics jointly with Joseph H. Taylor for the discovery of a new type of pulsar, Mr. Hulse started his career working on large-scale surveys for pulsars (stars that, according to Einstein, emit gravitational waves). Changing his professional focus from atrophysics to plasma physics, he joined the Plasma Physics Laboratory at Princeton University. Mr. Hulse developed a computer data format adopted by the IAEA as a standard for interchange of fusion applications atomic data. (b. 1950)

Bertram N. Brockhouse

1994 Nobel Prize for Physics "for pioneering contributions to the development of neutron scattering techniques for studies of condensed matter" and "for the development of neutron spectroscopy."

Canadian physicist who shared the 1994 Nobel Prize in Physics with American Clifford Shull for developing neutron scattering techniques. Mr. Brockhouse worked for the Atomic Energy of Canada's Chalk River Nuclear Laboratory. In 1962, he became a professor at McMaster University in Canada, where he worked until his retirement in 1984. In addition to his Nobel-winning efforts on neutron scattering techniques, Mr. Brockhouse also developed the neutron spectrometer and was among the first to measure the phonon dispersion curve of a solid.

He gave presentations and participated in two IAEA conferences. (b.1918 – d.2003)

Joseph Rotblat

1995 Nobel Peace Prize " for efforts to diminish the part played by nuclear arms in international politics and, in the longer run, to eliminate such arms."

Polish physicist who jointly shared the Nobel Peace Prize in 1995 with his organisation, the Pugwash Conferences on Science and World Affairs, for their contributions towards nuclear disarmament. He was one of the founding members, secretary-general and eventually president of the Pugwash Conferences on Science and World Affairs, an international body that works on problems of international safety/security and development. Mr. Rotblat worked on the Manhattan Project at Los Alamos, and became a physics professor at the University of London. A vocal critic of nuclear weapons, he changed gears after World War II to focus his work on medical physics instead.

Mr. Rotblat co-wrote an op-ed piece on nuclear disarmament with IAEA Director General Mohamed ElBaradei for the February 2004 edition of the *Financial Times*. (b.1908 – d.2005)