

sued a manifesto calling on the world's scientists to "assemble in conference to appraise the perils of weapons of mass destruction." It was signed by Albert Einstein two days before his death and by nine other scientists, including Rotblat, Max Born and Hideki Yukawa. Within days an eccentric millionaire named Cyrus Eaton offered them the use of his summer estate in the tiny Canadian fishing village of Pugwash in Nova Scotia for such meetings. "At first Russell thought it was a joke," Rotblat recalled, because in England the name Pugwash was associated with an indolent comic-strip character. Eaton covered the expenses of the first meeting in July 1957, and because there were no hotels in the region, he sent in three sleeping cars from his Chesapeake & Ohio Railroad to accommodate the 22 participants from 10 nations.

Since that first conference, some 200 conferences, workshops and symposiums organized under the banner of Pugwash have attracted a total of more than 10 000 scientists, academics and military and political figures. Participants are invited in a personal capacity, not as representatives of their government, university, research center or think-tank. The meetings are closed to the press and public to encourage free-ranging discussions of politically sensitive issues and proposals, and only a summary report is issued at the end.

This strategy has paid off in influencing a series of agreements that reduced world tensions during the cold war. Pugwash meetings laid the groundwork for the Partial Test Ban Treaty of 1963 and the Non-Proliferation Treaty of 1968. At the 1967 Pugwash meeting, leading Soviet scientists, including Lev Artsimovich and Peter Kapitsa, agreed that developing antiballistic missiles would endanger national and world security. Their views contributed to shifting Soviet policy away from support for ABMs toward the 1972 Antiballistic Missile Treaty.

Pugwash is really part of a larger movement of scientists. That includes the founders of the *Bulletin of the Atomic Scientists*, the Federation of American Scientists and the Council for a Livable World. Their mission has lost some of its momentum over the decades, but only because many of the principles and policies proposed by the scientists have been widely accepted by civilized nations. The scientists and engineers contributed to winning the battle.

Rotblat has been closely identified with Pugwash, acting as its secretary-general between 1957 and 1973 and as chairman of British Pugwash from

1978 to 1988.

Much of the almost \$1 million in prize money, to be shared equally by Rotblat and Pugwash, will go toward rescuing the organization from a permanent state of penury, due largely to its refusal to accept funding from governments. In recent years its major donor has been the John D. and Catherine T. MacArthur Foundation in the US but contributions also come from other foundations, individuals and national Pugwash committees and academies of science around the world.

IRWIN GOODWIN

New Order at Bell Labs After AT&T's Breakup

The future of Bell Laboratories is beginning to take shape, following the uncertainty that accompanied the surprise announcement on 20 September of AT&T's voluntary breakup into three separate companies, with separate stocks and separate "bottom lines."

Most of Bell Labs' scientists and engineers—all but 6000 of the 26 000 now there—will become part of what insiders are calling Company B, the \$20 billion business that will be responsible for manufacturing telecommunications equipment. The new head of this company is Henry B. Schacht, the former chairman and chief executive officer of the Cummins Engine Company. His second-in-command is Richard A. McGinn, who had been in charge of AT&T's Network Systems Unit and now is president and chief operations officer.

Bell Labs, which will comprise one division of Company B, is committed to becoming more commercially oriented, according to McGinn. On 16 October Daniel Stanzione, who was president of AT&T Network Systems' Global Networks Unit before being made president of Bell Labs last December, named Arun Netravali to be the new vice president of research. Netravali is an electrical engineer and expert in broadband networking and the up-and-coming digital-video technology. A native of India, Netravali earned master's and doctorate degrees in electrical engineering at Rice University and then did control and guidance engineering on the space shuttle program until he joined Bell Labs in 1972. Prior to his new position, he was vice president of communications sciences research and of the internal quality, engineering, software and technologies organization.

Netravali replaces Arno Penzias, who with Robert Wilson discovered the cosmic microwave background radiation in 1965. Penzias remains a

vice president and has an additional title of chief scientist, but it is the 49-year-old Netravali who will now lead the 1400 people engaged in fundamental research at Bell Labs. The number of such researchers has stayed nearly constant for ten years, but the emphasis has changed. There is more work now on information and computer sciences, and less in more traditional fields such as physics.

Wissbrun Is President of Society of Rheology

The Society of Rheology recently elected two new leaders: Kurt F. Wissbrun, who succeeded Robert C. Armstrong of MIT as president, and Ronald G. Larson, who succeeded Wissbrun as vice president. The new officers began their two-year terms during the organization's annual meeting in October.

Wissbrun received his BS in 1952 from the University of Pennsylvania and his MS and PhD in physical chemistry from Yale University in 1953 and 1956, respectively. He then joined Celanese Research Co (now Hoechst-Celanese), where he eventually became a senior research associate. His work there focused on the polymer science and engineering of synthetic fibers and plastics. Since his retirement in 1990 Wissbrun has been a consultant in Summit, New Jersey.

The new vice president, Larson, is a distinguished member of the technical staff at AT&T Bell Laboratories in Murray Hill, New Jersey. He holds a 1980 PhD in chemical engineering from the University of Minnesota.

In other results of the SoR elections, Andrew M. Kraynik of Sandia National Laboratories was reelected secretary, and Edward A. Collins of Avon Lake, Ohio, was reelected treasurer. Two new members-at-large were also chosen: Gerald G. Fuller of Stanford University and A. Jeffrey Giacomini of the University of Wisconsin—Madison.

Journal of Rheology Gets a New Editor

In the recent elections of the Society of Rheology (see previous story), Morton M. Denn was chosen editor of the *Journal of Rheology*. He had been interim editor since August, when Arthur B. Metzner resigned.

Metzner, professor emeritus of chemical engineering at the University of Delaware, had served as editor since 1985. He decided to retire, he said, because "I firmly believe that