

# NATO SCIENCE AND SOCIETY NEWSLETTER

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## People in the News

### Nobel Prize for former NATO grantees

The 2003 Nobel Prize for Physiology or Medicine was awarded to **Paul C. Lauterbur (USA)** and **Peter Mansfield (UK)** for their discoveries concerning magnetic resonance imaging. In 1977 and again in 1979 they received a NATO research grant for development of Magnetic Resonance Imaging (MRI) Techniques. At the time there were still numerous problems to overcome before use of the technique could become feasible. Today, use of magnetic resonance imaging is routine within medical diagnostics. Worldwide, more than 60 million investigations with MRI are performed each year and MRI has replaced many invasive methods of examination.

The 2003 Nobel Prize for Chemistry was awarded to US scientists **Peter Agre** and **Roderick MacKinnon** for their discoveries concerning water and ion channels in cell membranes. Both scientists were NATO grantees in the 1980s and early 1990s, during which period they were involved in the research which eventually led to their Nobel Prize. **Roderick MacKinnon** received a NATO grant to collaborate with Dr. Jacques Neyton of the Ecole Normale Supérieure, France, on the study of ion permeation in potassium-selective ionic channels. **Peter Agre** and colleagues from Johns Hopkins University (USA) were awarded a NATO grant to collaborate on the study of red cell membrane protein blood group antigens with Jean-Pierre Cartron and his team at the National Blood Transfusion Service, France. It was in studying such proteins that he came across the long-sought cellular water channel. Cell membrane channels are part of all living matter, and are important for the proper functioning of the nervous system and the muscles. They are thus important targets for drugs in efforts to combat disease. (More information from [www.nobel.se](http://www.nobel.se))

### Prize-winning e-science

NATO support has contributed to a prize-winning project at the UN World Summit on the Information Society, in Geneva, on 10-13 December. The Armenian-based Data Visualization Interactive Network (DVIN) was awarded world-best in the category of e-science by the World Summit Award Grand Jury. The President of Armenia, Mr. Robert Kocharian, presented the prize to Dr. Ashot Chilingarian of Yerevan Physics Institute, Armenia. Dr. Chilingarian received NATO support to develop wireless connections for real-time data transfer from mountain detectors, and also a reliable data acquisition system for modern astroparticle physics. The prize-winning programme is specialised in providing data and advance warning on sunspots and other space weather conditions,

which knowledge is necessary for the safety of satellites. (More information from <http://crdlx5.yerphi.am/DVIN/index2.php>)

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