

NATIONAL RESEARCH FOUNDATION

PRESS RELEASE

12 Feb 2007

SCIENTISTS FROM TECHNION – ISRAEL INSTITUTE OF TECHNOLOGY TO VISIT SINGAPORE TO EXPLORE PARTICIPATION IN THE CAMPUS FOR RESEARCH EXCELLENCE AND TECHNOLOGICAL ENTERPRISE (CREATE)

A team of five distinguished scientists and academics from Technion – Israel Institute of Technology (Technion) will visit Singapore from 14 to 16 February 2006. They are here to explore research collaboration opportunities with Singapore universities – the National University of Singapore (NUS) and Nanyang Technological University (NTU), and potential participation in CREATE.

2. The visit by the Technion delegation is a follow-up to a visit to Israel by senior faculty from Singapore led by Chairman of the National Research Foundation (NRF), Dr Tony Tan, in November 2006. During the visit, the participation of top Israeli research-intensive universities in CREATE was broached. CREATE has been endorsed by the Research, Innovation and Enterprise Council (RIEC) which the Prime Minister chairs in July 2006, and aims to foster joint research programmes between the world's top research universities and Singapore-based research institutions.

3. The Technion delegation comprises the Institute's Senior Vice President, Professor Aviv Rosen; Executive Vice-President for Research and Development, Prof Moshe Eizenberg, as well as experts in the fields of nanotechnology, biomedical sciences and industrial engineering. The delegation will visit NTU and NUS, and will tour INSEAD and the Temasek Life Sciences Laboratory.

4. The NRF will facilitate a similar visit by a delegation from Israel's Weizmann Institute of Science in the second quarter of 2007.

5. The members of the Technion delegation are listed in **Annex 1** and the Fact Sheet on Technion is in **Annex 2**.

About the National Research Foundation

Singapore's National Research Foundation (NRF), set up on 1 January 2006, is a department under the Prime Minister's Office.

The NRF will integrate the research, innovation and enterprise policies and initiatives in Singapore and invest in strategic R&D-driven industries to generate economic benefit. It coordinates the research done by various agencies within the larger national framework to provide a coherent strategic overview and chart the direction for national R&D. It also develops policies and plans to drive the national R&D agenda.

The NRF provides secretariat support to the Research, Innovation and Enterprise Council (RIEC), chaired by Singapore's Prime Minister. It will implement the national research, innovation and enterprise strategies approved by the RIEC, and fund initiatives and programmes that meet NRF's strategic objectives and grow our economy.

For more information, please visit <http://www.nrf.gov.sg>

**LIST OF DELEGATES FROM TECHNION –
ISRAEL INSTITUTE OF TECHNOLOGY**

- Prof Aviv Rosen
Senior Vice President and Shirly Tark Professor in Aircraft Structures
- Prof Moshe Eizenberg
Executive Vice-President for Research
- Prof Boaz Golany
Dean, Industrial Engineering and Management
- Prof Uri Sivan
Director, Russell Berrie Nanotechnology Institute
- Dr Dror Seliktar
Senior Lecturer, Department of Biomedical Engineering

FACT SHEET ON TECHNION – ISRAEL INSTITUTE OF TECHNOLOGY

The Technion Mission

Technion's vision is to be a science and technology research university, among the world's top ten, dedicated to the creation of knowledge and the development of human capital and leadership, for the advancement of the State of Israel and all humanity.

In 1924, the doors of a small Jewish technical university opened to train young men and women in the Middle East in engineering. This triggered a magnificent and historic chain reaction. The doors were also opened on that day to the nascent Israel's first and strategically most important center of advanced learning. This in turn opened the door to the founding of a modern state.

After that came breathtaking expansion and progress, rapid growth and dedicated pioneering at the forefront of new technologies, where creative individuals continually anticipate the needs of emerging technologies and science.

Today, Technion's main campus is a 300-acre city of advanced research and learning. As Israel's biggest scientific-technological university and one of the largest centers of applied research in the world, it is an empire of openings and opportunities for shaping a future.

Academic Programmes

Technion's 13,000 students enjoy 18 faculties (Aerospace Engineering, Architecture and Town Planning, Biology, Biomedical Engineering, Biotechnology and Food Engineering, Chemical Engineering, Chemistry, Civil and Environmental Engineering, Computer Science, Education in Technology and Science, Electrical Engineering, Humanities and Arts, Industrial Engineering and Management, Mathematics, Materials Engineering, Mechanical Engineering, Medicine, and Physics), that offer 52 undergraduate and 67 graduate programmes.

For graduate and postgraduate students, the Technion offers world-class research in engineering, science, medicine, architecture, education, and management. Advanced degree courses include: Master of Science (M.Sc.), Master of Engineering (M.E.), Master of Business Administration (M.B.A.) and Doctor of Philosophy (Ph.D.).

The Technion's 600 faculty members are trained both in Israel and abroad, maintaining active international collaboration and the highest standards of excellence in research and publications. The institute is a magnet to gifted young researchers from leading universities throughout the world.

Alumni

The Technion's more than 79,000 graduates are among Israel's most precious natural resources. They comprise 70 percent of Israeli-educated engineers, and

have created Israel's industrial infrastructure, reinforced its defense capabilities and pioneered its technology-based enterprises.

Scores of international companies such as Intel and Google have been drawn to Israel to tap into quality Technion graduates in new research and development facilities. The ingenuity of Technion alumni has brought Israel the highest concentration of high-tech start-up companies anywhere outside the Silicon Valley.

International Cooperation

Research agreements with academic institutions around the world include Johns Hopkins University, l'Ecole Polytechnique, Cambridge University, National University of Singapore, the Universities of Melbourne and Sydney, the Technological Universities of Berlin and Aachen, Tsinghua University, Xidian University and the Tokyo Institute of Technology.

Academic Exchange

Each year Technion welcomes over 60 internationally renowned scientists and some 100 postdoctoral students. The Technion hosts undergraduate and graduate students on campus from 35 countries around the world, and encourages its own students to study abroad as part of its student exchange programme.

Through the Technion's summer internship program, students work at companies in the U.S., where they gather cutting-edge practical skills with high-tech industries.

For a younger audience, the Sci-Tech International High School Summer Research Programme invites eleventh and twelfth graders with exceptional abilities in science and technology to study and conduct research in Technion labs.

The Technion is a world junction for intellectual exchange. Specialised institutes regularly host international workshops and symposia.

Centers of Excellence

With the merging of science and technology, an advantage in emerging fields of research demands the fluidity of cooperation between faculties. The Technion is a world model of multidisciplinary centers of excellence in fields that will boost Israel's future scientific and technological progress. The flexible organisational structure of these centers creates a hive of cooperation bringing movement into new fields and research priorities that are acclaimed worldwide.

Some 40 research centers and institutes also boost interdisciplinary research on a national and international level, including the Alfred Mann Institute for Biomedical Development; Asher Space Research Institute; Coastal and Marine Engineering Research Institute; Grand Water Research Institute; Lorry I. Lokey Interdisciplinary Center for Life Sciences and Engineering; Russell Berrie Nanotechnology Institute; Rappaport Family Institute for Research in the Medical Sciences; Solid State Institute; and Transportation Research Institute.

Technology Transfer

The Technion Research and Development Foundation (TRDF) is responsible for sponsored research, industrial liaison, and commercialization of Intellectual Property (IP) developed at Technion.

The Business Development Unit manages the commercialisation of Technion's IP and patent licensing. TRDF nurtures start-up companies in cooperation with industrial partners and venture capitalists from Israel and abroad. Working to build technology transfer between Technion scientists and the marketplace, TRDF has established more than 50 subsidiaries to date.

Technion Entrepreneurial Incubator Company (TEIC) assists pre-seed and seed stage technology-based start-ups to develop products and innovative technologies for tomorrow's markets. The incubator specialises in supporting and promoting technological enterprises from initial concept and development and implementation to profitable commercial venture.

The University-Industry Consortia Programme (MAGNET) was created by the Israeli government to encourage scientific and technological cooperation between industry and academia. The goal of the program is to develop precompetitive generic technologies for future product lines. The Samuel Neaman Institute for Advanced Studies in Science and Technology (SNI) coordinates Technion-based consortia. In addition, SNI serves as a MAGNET consortia information center.

Research Highlights

The discovery of "ubiquitin-mediated protein degradation" in living cells wins the Nobel Prize in Chemistry 2004 for Profs. Avram Hershko and Aaron Ciechanover.

- Prof. Joseph Itskovitz in partnership with University of Wisconsin researchers cultivates human embryonic stem cells, putting the Technion at the frontier of global stem cell research.
- Prof. Moussa Youdim and colleagues develop headline-making drugs, providing new hope for sufferers of Parkinson's, Alzheimer's, and other neurodegenerative diseases.
- Prof. Dan Shechtman unveils a new class of materials – quasiperiodic crystals (or "Shechtmanite").
- Profs. Abraham Lempel and Jacob Ziv create the international standard for data compression – the Lempel/Ziv Algorithm.

For more information on Technion, please visit www.technion.ac.il

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