

Research and Development

Prof. Moti Herskowitz, Vice-President and Dean for R&D

The University's administrative and academic faculty have been working together to improve BGU's standing as a top-tier research institution and, through its research and development, to impact the development of the Negev.

Over the past three years, total research income increased from \$43 million in the academic year 2005/06 to \$64 million in 2008/09 as a result of a concerted investment in research infrastructure, including advanced facilities and manpower, competitive start-up packages, improved administrative services for researchers and the completion of a number of major physical infrastructure projects. A significant part of this growth would not have been possible without the vision and support of individuals and foundations around the world who have become our partners in this process. Particularly noteworthy is the completion of the building for the Ilse Katz Institute for Nanoscale Science and Technology, housing state-of-the-art equipment acquired over the past three years.

University researchers received a significant number of grants from prominent funding agencies in Israel and abroad. Highlights of grants obtained from the European Seventh Framework Programme (FP7) including the following:

- Dr. Michael Meijler of the Department of Chemistry and the National Institute of Biotechnology in the Negev (NIBN) received a highly prestigious FP7 European Research Council grant (ERC). He also received grants from the Israel Science Foundation, the US-Israel Binational Science Foundation and the Human Frontiers Science Program.

Percentage of Grants by Faculty 2008/09

Guilford Glazer School for Business and Management 0.8%

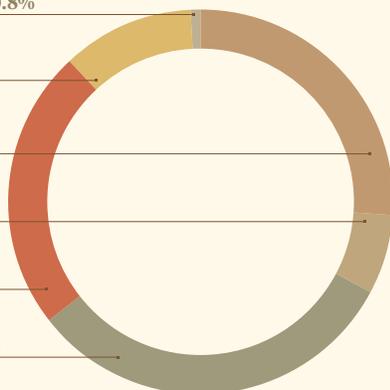
Jacob Blaustein Institutes for Desert Research 11.1%

Natural Sciences 26.2%

Humanities and Social Sciences 6.6%

Health Sciences 23.5%

Engineering Sciences 31.7%



- Prof. Ohad Medalia of the Department of Life Sciences and the NIBN also obtained an ERC grant for research. In addition, he received grants from the German-Israel Foundation, the Fritz Thyssen Foundation and the Minerva ARCHES program.
- Deputy Rector Prof. Yael Edan, incumbent of the Rabbi W. Gunther Plaut Chair in Manufacturing Engineering, was awarded two FP7 grants for team projects she heads: one for establishing an "interactive robotics research network" that includes a BGU team working with colleagues from three universities and two industrial firms, and a second project as part of a 15-member consortium of universities and industries planning to conduct a large-scale integrating project on robots for agricultural use.
- Prof. Eilon Adar, Director of the Zuckerberg Institute for Water Research and incumbent of the Alain Pöher Chair in Hydrogeology and Arid Zones, is heading a team that is involved in a 19-partner consortium focused on the development of rehabilitation technologies and approaches for multipressured degraded waters and the integration of their impact on river basin management.
- Seven researchers received International Reintegration Grants (IRG) to advance their specific projects.

Among the grants awarded by foreign funding agencies were three from the German Research Foundation (DFG) trilateral program, promoting cooperation between German, Israeli and Palestinian scientists. The grants were awarded to:

- Prof. Shifra Sagy of the Department of Education, incumbent of the Shane Family Chair in Education and Head of the Martin-Springer Center for Conflict Studies and Negotiation with colleagues from Georg-August-University of Göttingen and Al-Quds University;
- Prof. Jihad El-Sana of the Department of Computer Sciences with colleagues from the Technische Universität Carolo-Wilhelmina zu Braunschweig, the Triangle R&D Center and Birzeit University;
- Prof. Alon Friedman of the Department of Physiology and Neurobiology with colleagues from the Technische Universität Dresden and Al-Quds University. In collaboration with a researcher from the University of California Berkeley, he also received grants from the National Institutes of Health, from Citizens United for Research in Epilepsy (CURE), in partnership with the United States Department of Defense (DOD), and from the US-Israel Binational Science Foundation.

The past year was marked by three milestones in the establishment of BGU's research infrastructure: a \$90 million research fund for the National Institute for Biotechnology in the Negev (NIBN) was established; the Ilse Katz Institute for Nanoscale Science and Technology, supported by the Israel National Nanotechnology Initiative, moved into its state-of-the-art building that houses some of the University's most sophisticated laboratories; and Deutsche Telekom announced its intention to double its investment in the DT Laboratory at BGU, reflecting their satisfaction with the level of research and professionalism of the research group.

In addition to our more established frameworks of research, new initiatives based on our proven expertise are being promoted in the fields of renewable and green energies, continuing nearly four decades of work focused on solar energy, renewable fuels, fuel cells and energy crops.

BGN Technologies

BGN Technologies is the University's technology transfer company, responsible for marketing applications and knowledge created by BGU researchers. The company is responsible for filing worldwide patent applications and managing the University's patent and IP portfolio.

Through the development and promotion of BGU generated knowledge, enhanced by creative partnering with industry and investors, BGN brings value to the technological marketplace and to the University and its researchers.

Despite the worldwide economic crisis and its major impact on R&D budgets, 2009 was a good year for BGN and the University in terms of income generated by its business entities. A nine percent increase in yearly revenue was reported, totaling some \$13 million, which represents the highest figure ever. Three new spin-off companies were established this year, including one start-up in the medical devices arena and two in new water related technologies.

There were significant developments with other existing projects:

- GlaxoSmithKline, one of the three largest pharmaceutical companies in the world, has licensed a vaccine from Protea Vaccines, a BGN spin-off company, based on the invention of Prof. Yaffa Mizrahi and Prof. Ron Dagan, incumbent of the Werner J. and Charlotte A. Gunzburger Chair for the

Study of Infectious Diseases, from the Faculty of Health Sciences;

- Bioline, a licensee company of BGN with a technology invented by Prof. Smadar Cohen, chairperson of the Avram and Stella Goldstein-Goren Department of Biotechnology Engineering, and incumbent of the Claire and Harold Oshry Chair in Biotechnology and Prof. Jonathan Leor from Tel Aviv University, has sublicensed the technology to the American company Ikaria.

Total External Research Funding (\$US m)



Total Investment in Research (\$US m)

