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NEW GRANT TO FUEL SOLAR ENERGY RESEARCH

REHOVOT, ISRAEL—October 24, 2012—The Leona M. and Harry B. Helmsley Charitable Trust announced a gift of \$15 million over three years to fund joint research in solar energy and biofuels between the Weizmann Institute of Science and the Technion – Israel Institute of Technology.

The Helmsley program, which will involve dozens of researchers from the two institutions, is unique in several ways. For one, scientists in fields ranging from genetics and plant sciences to chemistry, physics and engineering will be working together toward the common goal of providing renewable energy options to Israel and the world. For another, the researchers anticipate that wedding the basic research approach of the Weizmann Institute to the advanced technical-engineering emphasis of the Technion teams will provide the synergy needed to accelerate discovery and development of innovative energy options that can be the basis for future technologies.

In addition to advancing new avenues of research, the new gift will serve to expand and strengthen the success of existing alternative energy programs, including the Weizmann Institute's Alternative Energy Research Initiative (AERI), the Grand Technion Energy Program (GTEP) and the Israeli Center of Research Excellence (ICORE) in alternative energy. The Weizmann Institute and Technion participate along with the Ben-Gurion University of the Negev in the latter.

Initially, the research projects will focus on three key areas: biofuels, photovoltaics and optics for light harvesting. The biofuels research includes generating effective methods for breaking down waste plant matter into usable fuel resources, developing algae that can produce biofuels economically and developing plants that can be grown sustainably and provide materials that can easily be converted to biofuel. The Helmsley initiative will help fund state-of-the-art facilities at the Weizmann Institute to advance this research.

The other two areas of focus – photovoltaics and optics – will include the creation of new materials that can use a larger portion of the sun's energy (today's cells use only a limited part of the sunlight) and innovative ways of efficiently converting

that energy to electricity. The optics research will involve some of the most cutting-edge materials design and research available, including plasmonics, nanostructures and metamaterials studies.

The Weizmann Institute's Prof. David Cahen heads the Helmsley project together with Prof. Gideon Grader of the Technion. They expect that a number of the research teams will find themselves working in all three areas in parallel, as the best solutions, including the more distant goal of artificial photosynthesis, are likely to involve combinations of the three.

Cahen: "Alternative energy is one of the most important, as well as one of the most exciting, fields of research today. With this grant from the Helmsley Trust, we hope to attract bright, innovative researchers and students to the field. We know that a whole array of energy options will be needed to replace today's nonrenewable and polluting fossil fuels; all of our present efforts are essential to ensure our energy future."

Prof. David Cahen's research is supported by the Ben B. and Joyce E. Eisenberg Foundation Endowment Fund; the Monroe and Marjorie Burk Fund for Alternative Energy Studies; the Mary and Tom Beck Canadian Center for Alternative Energy Research, which he heads; the Leona M. and Harry B. Helmsley Charitable Trust; the Carolito Stiftung; the Wolfson Family Charitable Trust; the Charles and David Wolfson Charitable Trust; the estate of Theodore E. Rifkin; the Irving and Varda Rabin Foundation of the Jewish Community Foundation; and the Nancy and Stephen Grand Center for Sensors and Security. Prof. Cahen is the incumbent of the Rowland and Sylvia Schaefer Professorial Chair in Energy Research.

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The Weizmann Institute of Science in Rehovot, Israel, is one of the world's top-ranking multidisciplinary research institutions. The Institute's 2,700-strong scientific community engages in research addressing crucial problems in medicine and health, energy, technology, agriculture, and the environment. Outstanding young scientists from around the world pursue advanced degrees at the Weizmann Institute's Feinberg Graduate School. The discoveries and theories of Weizmann Institute scientists have had a major impact on the wider scientific community, as well as on the quality of life of millions of people worldwide.