

TRANSFORMING **Tomorrow**

Accelerate the Next 75 Years of Scientific Breakthroughs

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GIFT OPPORTUNITIES

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The Transforming Tomorrow Campaign has a goal as bold as the Weizmann Institute of Science itself: to celebrate the American Committee's 75th anniversary by raising \$225 million –\$75 million a year through 2019–in support of our common mission: *science for the benefit of humanity.*

The Weizmann Institute of Science is today a global powerhouse of basic science research, thanks in no small part to the generosity of the American Committee's family of dedicated supporters. By dramatically expanding our philanthropic partnership with the Institute, we aim to not just continue the tradition of the past 75 years, but advance it, ensuring that the pace of Weizmann science never falters.

These funding opportunities fall into three primary categories: the People, the Science, and the Essentials of Research. In addition, there are ongoing needs for unrestricted annual funds that keep the Weizmann Institute operating at an unflagging level of excellence. Every single one of these options has the potential to make a major difference in the world—as do you.



THE PEOPLE

Prof. Daniel Zajfman, President of the Weizmann Institute, often says that the single most important element in Weizmann's success is its people. They are the lifeblood of the Institute. And donor support of this select group—from award-winning veteran scientists to students just beginning their journey—is crucial to the future of scientific research.

PROFESSORIAL, CAREER DEVELOPMENT, AND RESEARCH FELLOW CHAIRS

There are many contributing factors to scientific discoveries, but the human component is truly indispensable. The most up-todate equipment is ineffective without skilled technicians to operate it. The most robust data are meaningless without insightful scientists to translate it. The most thoughtfully constructed buildings and labs are empty without curious researchers to bring them to life.

The Weizmann Institute of Science continually endeavors to not only attract and recruit the brightest young scientists—from Israel and across the globe—but to also reward and retain the senior scientists whose research produces the medicines, technologies, and insights that make the world a better place. A meaningful way to meet these goals is by conferring a donor-funded chair.

The Professorial Chair honors esteemed veteran scientists with proven track records. The rank of professor at the Weizmann Institute recognizes a scientist's considerable achievements, stature in the scientific community, and continuing influential role in scientific inquiry. Professorial Chairs are established in perpetuity, and by creating one, a donor makes a significant, long-term, and very personal contribution to the future of the Institute and the State of Israel—and, of course, to the career of a prominent scientist.

The Research Fellow Chair rewards the talented mainstays of the labs: staff scientists (also called research scientists). Staff scientists, who hold PhDs, not only conduct their own studies but collaborate with senior faculty; thus, their expertise contributes to a wide range of investigations. The Research Fellow Chair is a newer initiative, aiming to provide much-needed support for these vital investigators as they drive the breakthroughs and developments coming from Weizmann labs. The chair is awarded in perpetuity, allowing staff scientists to focus their efforts on widening the knowledge base ... at the Institute and beyond. **The Career Development Chair** does just what the name implies: supports young scientists as they start up their labs and establish their research careers. Typically established in perpetuity, the chair stays with the chosen scientist for three to five years, at which point it will be awarded to a new worthy young scientist. As they are also being courted by prestigious universities abroad, the potential for being awarded a Career Development Chair is a powerful incentive for these newly minted researchers to join the Weizmann Institute.

Beyond the support and confidence provided by each of these chairs, they also offer a unique opportunity for you to develop an extraordinary relationship with an individual scientist, and to be a part of their projects and successes.



GRADUATE STUDENT SCHOLARSHIPS AND POSTDOCTORAL FELLOWSHIPS

The Weizmann Institute of Science's Feinberg Graduate School is unique in a number of ways, not least of which is immersing students in hands-on lab research virtually from day one, as well as covering all tuition and living expenses. Donorfunded scholarships are crucial to this approach.

Providing scholarships to each and every master's and doctoral student increases Feinberg's competitiveness and frees students from the need to seek an income: they are able to wholly dedicate themselves to academic studies and scientific advancement. The Institute is vying with other respected graduate schools for these exceptional emerging scientists, and the scholarships are extremely attractive incentives. The fact that the school is rapidly growing—including attracting record numbers of foreign applicants—and has a stellar track record covering more than 50 years validates this approach; for example, one-third of all science and math PhDs in Israel graduated from Feinberg.

After receiving their doctorate, scientists who wish to someday establish their own labs must conduct postdoctoral research. Postdoctoral fellows are working scientists, laying the groundwork for their own careers by conducting research in the labs of senior scientists. However, being a postdoc is time-consuming, labor-intensive, and costly—which is why the Weizmann Institute awards a fellowship to every postdoctoral scientist.

This requisite step toward a career is part of the reason there are fewer women in the higher ranks of academic science. For Israeli scientists, going abroad to conduct postdoctoral research is crucial; however, many women with PhDs have families at this stage in life, and moving overseas for several years is not possible. Because we cannot afford to lose these fine scientific minds, a new fellowship—the Combined Weizmann-Abroad Postdoctoral Program for Advancing Women in Science—was developed. Its goal: provide support to female PhD graduates who want to gain international experience, but are unable to relocate. The program combines postdoctoral research at Weizmann and at a leading institution in another country, offering the candidate maximum flexibility in dividing her time between the two. The fellowship, which helps cover costs for the overseas component, is expected to increase the numbers of female PhDs who establish academic careers—which is good for women in science, good for the Institute, and good for research.

פכון ויצמו לפרע

THE DAVIDSON INSTITUTE OF SCIENCE EDUCATION

The future of science and technology depends upon the education our children receive today. This is true across the globe, and particularly so in Israel—a small country where brain power is a major natural resource. To ensure a fully integrated society in which everyone has the same opportunities, children must be exposed to educational programs that instill values and knowledge, and provided with tools to spark their curiosity—exactly what is offered by the Weizmann Institute's Davidson Institute of Science Education.

The Davidson Institute has more than 70 programs in all, tailored for a range of abilities, ages, and life situations. Just a few of these include professional development for high-school science teachers, initiatives aimed at encouraging girls in science, extracurricular lab activities for gifted students, programs to engage at-risk youth, and an annual science festival that is open to the public.

Davidson is also using today's technologies to expand its reach and modernize its offerings. The forward-looking new *i*Science program aims to set a high bar for science, technology, engineering, and math (STEM) education and literacy, with notable impact in remote and disadvantaged communities where such opportunities are scarce. The *i*Science initiative will offer high-quality online resources, live remote discussions between students and Institute scientists, and public outreach.

Whether creating science-literate citizens or inspiring the next generation of scientific minds, by funding any of the Davidson Institute of Science Education's inspiring programs, the donor makes a direct investment in the future.



THE SCIENCE

As one of the world's foremost centers of basic science research, the Weizmann Institute knows that the best way to achieve breakthroughs is to free its scientists from commercial or academic constraints, encouraging them to follow their creativity and collaborate across disciplines and international boundaries. This approach has led to lifechanging, life-enhancing medicines, products, and technologies. Philanthropic support is crucial to maintaining Weizmann's standard of excellence and ensuring that the research continues to accelerate.



CENTERS AND INSTITUTES

Intellectual exchange and collaboration are powerful engines for scientific discovery and innovation. Unhindered by artificial walls between disciplines, Weizmann scientists routinely cross the borders of their specialties, bringing the combined power of their expertise to bear on humanity's most pressing issues.

Long a hallmark of the Institute, such multidisciplinary research is part of a revolution underway in science. Major technological leaps forward have enabled the methodologies of one field to be applied to another; for example, biology research is now routinely enhanced by the principles of physics, chemistry, and math, leading to astonishing advances in fields such as drug development and personalized medicine.

These advances are fostered and powered by Centers and Institutes. While permanent, Centers and Institutes are not brick-and-mortar facilities, but multidisciplinary collaborations that provide a framework for concentrated research on new initiatives, with scientists from multiple labs working together in the service of, for example, neuroscience, alternative energy, or breast cancer. They also fund related needs such as shared equipment, stipends for young scientists, conferences, and workshops.

RESEARCH FUNDS

Research Funds are particularly flexible ways to give: they are both specific and adaptable. For example, you can create a Research Fund in a field of science of your choosing—cancer, environmental science, genetics, neuroscience, etc.—without being limited to a single researcher or project, and the Institute is able to flexibly use the fund to support the work that most needs it.

In the past decade or so, spurred by the creation of technologies and data collection on an unprecedented scale, there have been true scientific revolutions in a number of fields: neuroscience, astrophysics, genomics, security, immunotherapy, stem cells, and more. But as research frontiers have broadened and grown more complex, the cost of exploration has soared. More funds than ever are needed to ensure that laboratories have the first-rate staff, the state-of-the-art equipment, and the myriad other necessities required for science at the highest level.

Research Funds enable donors to make a tangible impact on the day-today functioning of Weizmann laboratories—and ensure that progress in a given field advances unimpeded.



THE ESSENTIALS OF RESEARCH

While the scientists are vital and the investigations crucial, there is another ingredient that must be in place for science to succeed: the physical element.

Without instrumentation, equipment, laboratories, and the buildings that house them, much less apartments, childcare, and other facilities that provide on-campus quality of life, research comes to a full stop. From the most basic needs (lab sinks, test tubes, storage spaces) to the most advanced (one of the world's largest nuclear magnetic resonance magnets) to the most specific (a "racetrack" for bats taking part in neuroscience research), the essential physical tools of science all have a price tag.

INSTRUMENTATION AND EQUIPMENT

While supporting all areas of Weizmann Institute science—and all scientists—is important, it's worth noting what President Prof. Daniel Zajfman often replies when asked what the Institute most needs funding for: equipment. "It's our most critical and constant need," he says.

This is because scientists continually need to keep up to date with the latest technologies and have appropriately set-up laboratories. Electron microscopes, high-powered magnetic resonance imaging (MRI) machines, gene microarrays, ever-stronger computers, and the like are all basic tools of scientific investigation today. However, because of rapid technological advances and its special nature, modern scientific equipment has a relatively brief shelf life, becoming quickly outdated— and its cost is always rising.

Furthermore, every carefully recruited new scientist is given a custombuilt lab; not only is this a powerful incentive for coming to Weizmann, but ensures that the fresh ideas brought to campus result in the best possible research. And every new lab must be outfitted, from basic equipment to specialized instruments.

Weizmann scientists make every effort to reduce costs, such as by sharing; it is common for a single piece of equipment to serve multiple research teams from several departments. But when the need is great, this aim at efficiency can turn into an obstacle: for example, in the field of biophysics, the Institute's sole imaging flow cytometer has been used by 200 individuals and contributed to 35 published papers; however, to use this device, scientists must reserve it weeks in advance. Besides delaying progress, this can throw an entire line of research off track.

Philanthropic funding for instrumentation is a major driving force behind new discoveries, advancing the work of skilled scientists, and promoting long-term scientific success.



BUILDINGS AND FACILITIES

The last several years have seen a host of construction projects on the Weizmann Institute's 280-acre campus, from improving small gardens to building large, architecturally significant, high-tech complexes.

One reason for this dynamic development is the Institute's growth, over just the past decade, from 2,600 scientists, students, technicians, and supporting staff to 3,800 and counting. International conferences, visiting scientists and scholars, more positions for new scientists, expanded education programs, and an increase in foreign graduate students and postdocs have all led to record numbers of people on campus.

In response, the Institute has needed to provide new spaces to host guests and hold conferences; cafés and other restorative facilities; and buildings for graduate and younger-student education. Comfortable, smartly designed, modern residences are badly needed to accommodate the graduate students; young scientists, many of whom have families; and longer-term visitors, such as scientists from overseas who are taking their sabbatical in Weizmann labs.

And just as technological advances have led to revolutions in research, they have also led to a great need for purpose-built structures to support the specialized equipment. Some of these new instruments are extremely sensitive and delicate, requiring highly controlled environments—for example, protected from movement (earthquakes or other vibrations), sunlight, dust, and fluctuations in temperature and humidity.

But all this development must be done responsibly. Weizmann's worldleading climate-change research translates to an on-the-ground commitment to environmental stewardship—thus, new developments implement eco-friendly building practices: green roofs, recycled water, interior plant walls, use of sustainable and nontoxic materials, and the like. The Institute also renovates, upgrades, and repurposes existing buildings and labs whenever possible. Donor funds are crucial to these major developments, and establish the philanthropist as a visible partner and prominent presence on campus.

While all of the preceding gift opportunities are Institute priorities, ongoing philanthropic support for annual funds is also crucial. Such unrestricted donations secure the future of science by providing for general costs, ongoing operations, and other essentials, allowing the Weizmann Institute to continually accelerate its research and maintain its standard of excellence.



