



Adams Fellows Return Home

Success Stories

By Assaf Uni

Background

Since 2005, Adams Fellowships have been awarded annually to about ten young research students from their second year of doctoral studies, for a period of up to four consecutive academic years. Israel's academic institutions recommend grant candidates from among their outstanding students. Those selected as Fellows get a full exemption from tuition fees, in addition to the grant itself. Academy Member Professor Moti Segev heads the Adams Fellowships Steering and Approval Committee. Candidates' applications are submitted by the rectors of their respective universities and the program operates under the auspices of the Israel Academy of Sciences and Humanities.

Each Adams Fellowship amounts to \$27,000 per year. In addition, each Fellow is allotted up to \$3,000 annually for participation in scientific conferences, study seminars abroad, scientific collaboration or travel to interview for post-doctoral positions abroad.

Financed by Mr. Marcel Adams of Canada, who marked his 95th birthday last August, support of the program has become a family tradition. Every year, Adams Fellows are invited to attend Adams Fellowship get-togethers, both formal and informal, which include seminars and conferences with the participation of senior researchers of Israel — members of the Academy, Nobel Prize winners, and others — and poster competitions, etc. Similarly, the Fellows enjoy participation in workshops on Science Communication and guided field trips outside the Academy. These are all part of the effort to enable Fellows from different universities and fields to become acquainted with one another and to establish an active community of young scientists within the framework of the Academy. A frequent visitor to Israel, Mr. Adams regularly attends the yearly Adams Fellowship Seminars, where he presents the grants to new Fellows in person.

In the last cycle of Adams grants, eight new Fellows were chosen, who were to begin receiving their grants in October 2015. **A total of 103 Fellows have participated in the program since its inception: 77 men and 26 women researchers.**

A breakdown of this number according to academic fields reveals that the largest number of Adams Fellows, 30 (approximately half of whom are women), are in medicine and life sciences. Twenty-eight are in mathematics and computer sciences; 19 in physics, 11 in electric engineering, eight in chemistry; and two in nanoscience; the remainder are individuals researching ecology, evolution, solar energy, and mechanical engineering.

Adams Fellows, who are regarded as the most excellent researchers in Israel, have an impressive record of achievements in terms of research and publications in leading professional journals. Although they leave Israel for post-doctoral work in the world's top universities and receive tempting offers from the most prestigious institutions abroad, the Academy notes with pride that **of the 72 Adams Fellows who completed the program in the past decade, 25 have already returned to academic positions in Israel.**

Assistant Professor Carmel Rotschild

"I would even say that the committee that chose to give me the Adams Fellowship knew how to identify my potential even before I identified it myself."

"The fact that I received the Adams Fellowship had a major impact on my academic career," says Assistant Professor Carmel Rotschild of the Technion, who was in the second cycle of Adams Fellows in 2006. "If I wasn't sure about remaining in research, particularly whether or not to continue in my field of specialization — being awarded the grant was a sign for me that I was on the right track."

"Maybe this even tipped the balance for me," he adds. "I wasn't thinking of continuing on to an academic career, but receiving the scholarship made me think that there was a good reason to do so. I would even say that the committee that chose to give me the Adams Fellowship knew how to identify my potential even before I identified it myself."

According to Rotschild, "The scholarship was also an enormous financial help. I had three children when I received it, and it made it possible for me to concentrate on research."

"There's something very unique here," he notes about the character of the fellowship. "One feels that Mr. Adams cares personally about the Fellows, that the help he extends and the changes he generates are truly important to him." He elaborates: "Mr. Adams remembered me even years after my fellowship ended. He wanted to know what I was researching, and he was delighted to know that I landed a job in Israeli academia. I felt that he was personally connected to the whole process I'd gone through."

Assistant Professor Rotschild investigates solar energy conversion at the Technion's Faculty of Mechanical Engineering. He is currently working on a standard based on a new thermodynamic principle, which will increase the capacity of converting solar energy to electric energy. The project was awarded a major research grant recently from the ERC (European Research Council).



Prof. Carmel Rotschild



Doctoral Student Assaf Manor

Regarding the Adams Fellowship Program, which has just marked the end of its 11th year, Rotschild remarks: "It is very important." That's why he decided to recommend one of his students for an Adams Fellowship. "I struggled hard to make it happen," he recalls, "and this

was the only student I recommended. I felt that he was of the quality demanded by the Fellowship, and I wanted to give him a push onto the same track that the Fellowship laid out for me."The doctoral student, Assaf Manor, who is also studying more efficient ways to convert solar energy, was chosen for an Adams Fellowship in 2013.

"When I met Mr. Adams in my lab," remembers Assistant Professor Rotschild, "it was important to me to tell him what a crucial effect his scholarship, the one he initiated and underwrites, had on me. So he would see the fruits of his efforts. I wanted him to understand how his program could change lives."



Carmel Rothschild hosts Marcel Adams in his lab at the Technion, 2008

Dr. Moshe Goldstein

"The Fellowship is an expression of appreciation for scientific achievements and significant encouragement for one's efforts."

"Being awarded an Adams Fellowship is without doubt a significant springboard to an academic career," says Dr. Moshe Goldstein, who was in the third cycle of Adams Fellows, in 2007. "Of course it makes it possible to focus on research, and it provides invaluable assistance for academic trips abroad in order to present research findings, to learn about developments in the field and to create the basis of professional collaborations. But besides its financial aspects, what I think is even more important is the fact that the scholarship expresses appreciation for your scientific achievements and provides major encouragement for your efforts."



Dr. Moshe Goldstein

"Furthermore," adds Dr. Goldstein, who is today a Senior Lecturer in Tel Aviv University's School of Physics and Astronomy, "mentioning on your CV that you were an Adams Fellow opens doors for the researcher."

On top of his personal gratitude for having received the Adams Fellowship is a certain amount of family pride. "With my encouragement, my brother also submitted his candidacy for an Adams Fellowship, and he was among those chosen last year." His brother, Yitzhak Goldstein, currently working on his doctorate in computers at Bar-Ilan University, is among the latest round of Adams Fellows (for the year 2015).

Dr. Moshe Goldstein investigates nanoelectronic systems.

"In nanotechnology, the more you minimize the systems, you're talking about reductions that are extremely significant," he says. "Today, electronics don't work the way we're familiar with, and a variety of quantum phenomena are beginning to play a central role. Understanding these phenomena, together with the impact of intra-electronic interactions and the characteristic lack of balance in these systems — these represent some of the main challenges in physics today. Besides their importance to basic science, they open a range of practical electronics applications in the future including quantum computing, which we already see appearing on the horizon."

Dr. Goldstein says, "The social and professional events offered to Adams Fellows (and alumni), such as the annual meetings or the one-day seminars, are an integral part of the program. I made sure to take part in all of them when I was doing my PhD at Bar-Ilan. Of course, that couldn't happen while I was a post-doc at Yale, in the USA, but from the time I returned to Israel I've been glad to attend them again." He continues, "These events are a wonderful

opportunity to get to know the other Fellows. It should also be said, in praise of the program, that many of the Fellows I met in those years have done very well and advanced in their careers; today they're on the staff of the most respected institutions."

According to Dr. Goldstein, "It's fascinating to hear about the latest developments in the many fields that they're researching nowadays. I see great importance in this even though no quantum collaborations have yet emerged for me."

Moreover, he points out: "The work of the selection committee of the Adams Fellowships has been very successful. One can see that (without relating to my own story) through the Fellows' achievements down the road. Even though I was never involved in the selection process, my impression is that the Fellows are chosen on a strictly scientific basis, with no outside considerations. Whereas other programs try to establish a balance between academic fields or among institutions, it seems to me these factors hold no significance for the Adams Fellowships; rather, they focus on finding the most worthy students."

"At the same time," Dr. Goldstein concludes, "what stands out is the personal relationship, the warmth and the caring of the staff regarding the Fellows, past and present, and in particular of Batsheva (Director of the Contact Center for Israeli Researchers in the Israel Academy of Sciences, and Administrator of the Adams Fellowships). But above everyone else, I must of course mention Mr. Adams himself. Despite his age, he manages to get here for every annual meeting, to converse with the young researchers and to inquire about their lives. He also visits the various research labs (including mine), and even sends personal letters to Fellows who have completed the program. As an example of his awareness of the Fellows, I can well remember this: when the value of the dollar went down and the value of the grants plummeted, Mr. Adams quickly took it upon himself to increase them. May he be privileged to witness the success of many more generations of groundbreaking young scientists!"



Moshe Goldstein explaining his research to Marcel Adams. Left to right: Marcel Adams, Moshe's PhD advisor Prof. Richard Berkovits, Bar-Ilan University President Prof. Moshe Kaveh, Moshe Goldstein

Dr. Noam Stern-Ginossar

"What helped me the most were the funds the Adams Fellowship gave me in order to travel to conferences abroad."

"In terms of the Adams Fellowship, what helped me and my career the most, were the funds it provided so I could travel to conferences overseas," says Dr. Noam Stern-Ginossar, an Adams Fellow of 2006. Dr. Stern-Ginossar, an immunologist who heads a lab for the study of viruses at Weizmann Institute, tells us: "Before I received the Fellowship, I couldn't travel to a relevant and very interesting conference because my advisor would have had to fund the trip out of his own pocket. So I was very limited when it came time to be exposed to what was being done elsewhere in my own research field, and to hear innovative ideas."



Dr. Noam Stern-Ginossar

"Israel after all is on the periphery of science, and there is enormous importance to knowing what is going on globally," she adds. "When I was awarded the grant, it was the first time I felt free to travel as I needed and wanted for the sake of my research. This opportunity to meet other researchers in related topics, to hear what was taking place in the world, helped me focus on the subject of my post-doctorate."

Furthermore, says Dr. Stern-Ginossar, "In fact, an Adams Fellowship is a sign of recognition of one's standing as a researcher and scientist. Just the fact that you were chosen has a great impact. I felt I belonged to a tiny team — probably like being in *Sayeret Matkal* [an elite army unit]. More than the grant money, the Fellowship gives you the feeling that your work is appreciated."

The laboratory Dr. Stern-Ginossar heads, in Weizmann Institute's Department of Molecular Genetics, focuses on the functioning of two primary viruses: CMV, the virus with the biggest impact on human beings, and influenza, a very tiny virus.

"We attach cells to these viruses and use highly sophisticated techniques to examine the processes that then take place," explains Dr. Stern-Ginossar. "We are trying to improve our understanding of what happens in human cells, so in the future we will be better able to fight viruses. They are geniuses!"

As for the Adams Fellowship, she summarizes its impact on her academic career: "It's a very nice line added to one's CV. If you're chosen — it means you've succeeded. The selection process consistently manages to pick out the leading researchers in the field of natural

sciences, and receiving the Fellowship places you among the best.” On a personal level, she continues, “You suddenly have the feeling that people recognize what you’re doing. Besides the funds that they gave me to travel to a relevant conference, they gave me a sense of independence. It was the first time in my academic career that I had this feeling of empowerment.”



Noam Stern-Ginossar explains her lab work to Marcel Adams at The Hebrew University



Receiving the Sir Charles Clore Prize for Outstanding Appointment as Senior Scientist at the Weizmann Institute from Dame Vivien Duffield

Dr. Nathan Keller

"A quality team in the Natural Sciences of Academia in Israel"

Dr. Nathan Keller is a graduate of the first cycle of Adams Fellows, one of the five grantees who launched the program in 2005. He remembers how the grants were perceived at the start: "It's a fact that, in the academic world, prestige is generally measured in monetary terms. And because the Adams Fellowship was one of the biggest awards, since its inception it's also been regarded as one of the most prestigious."



Dr. Nathan Keller



Left to right: Mrs. Keller, Dr. Keller, Prof. Menahem Yaari, Prof. Jacob Ziv, Marcel Adams

Dr. Keller goes on "As the years went by, the fact that the Fellowship was awarded by Israel's National Academy of Sciences, that its events were held under the Academy's auspices, and that the grantees were occasionally invited to various Academy events — all these things made it even more special and prestigious, and not merely in financial terms."

"At that time, doctoral scholarships were even smaller than they are today," says Dr. Keller. "And until I received the Adams Fellowship, my wife and I thought that we'd have to work in addition to conducting research. The scholarship enabled me to put all my time into my studies. In addition, I think that the Fellowship helped me in my academic career because of its reputation as a highly respected award. The fact that I was privileged to get it may have opened doors for me or helped me get accepted to academic institutions."

Dr. Keller, who researches combination theory and cryptology at Bar-Ilan University, says that, "Beyond the grant funds, the program creates good ambiance. The feeling that Mr. Adams really cares about the Fellows. He would meet me and tell me: 'Ah, you're the one who's already married.' Afterwards there would be lectures and meetings where we could also bring our spouses and children. The program had a warm, family atmosphere. Let's put it this way: Every time I get an e-mail from Batsheva Shor, I'm happy."

"Moreover," he adds, "the Fellowship creates a kind of quality team for Natural Sciences in the Israeli academic world, with a kind of stamp of approval for its excellence, which is very significant. It bears great weight on the Israeli academic landscape, and is among the two or three most important scholarships. You can see that many of the Fellows have found positions in academia or in industry, where they head leading firms."

Dr. Daphna Nachmani and Dr. Yoav Livneh

“The Fellowship was an anchor for us and a continuous source of assistance.”

Dr. Daphna Nahmani and Dr. Yoav Livneh are currently doing their post-doctorates at the medical school of Harvard University in Boston. She works in cancer genetics; he is in neurobiology.

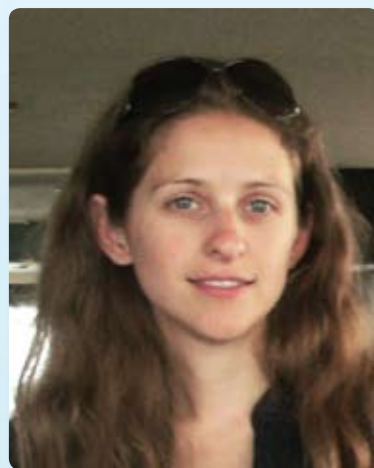
“It was a bit hard, and it took us some time to find a place where we could both do our post-docs, but we finally found Harvard,” says Dr. Nachmani in a conversation from the USA.

They are both fresh alumni of the Adams Fellowship: Dr. Livneh became a Fellow in 2010, and Dr. Nachmani the following year, in 2011.

“There are researchers with self-confidence, and those with less,” notes Dr. Nachmani. “For the latter, receiving an Adams Fellowship gives them the assurance that they’re on the right track. From a professional standpoint, the scholarship gave us a great deal, especially their financing trips to academic conferences, which the program encourages. The Fellowships helped us tremendously: they opened us up to the world of international science and gave us a chance to meet and get to know researchers from around the globe, to expand our general knowledge, and to concentrate and find a place where we could do our post-docs.”

The only “100% Adams Fellowship Couple” among the program alumni to date, the two met with Mr. Marcel Adams during one of his recent visits. “It was a delightful meeting,” recalls Dr. Nachmani. “We even showed him our infant, the first ‘Adams baby.’ Mr. Adams is a philanthropist who’s made a really significant contribution. We appreciate him enormously, and what these grants have done for us. The Adams Fellowship was an anchor for us, the place that always assisted and supported us, as scientists and as individuals.”

According to Dr. Nachmani, the social connections the couple forged as Adams Fellows continue to play a role in their lives in Boston. “At the Adams Fellowship’s one-day seminars and annual meetings we met many researchers who are also doing their post-docs and living in Boston, and we’ve become friends with them. There’s a large congregation of Israelis here, and of Israeli scientists in



Dr. Daphna Nachmani



Dr. Yoav Livneh

particular. The meetings organized by the Adams Fellowship program enabled us to make the acquaintance of many people who've become friends here in the USA."

Dr. Nachmani studies the genetics of leukemia: "I investigate the changes in RNA, which impact what happens and develops in leukemia." She is a PhD of Immunology, a graduate of the Hebrew University of Jerusalem. Her spouse, Dr. Livneh, a neurobiologist, researches the neural activity of the human brain and is also a graduate of the Hebrew University of Jerusalem.



Marcel Adams and Batsheva Shor with Daphna Nachmani, Yoav Livneh and their infant son Gidi



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