



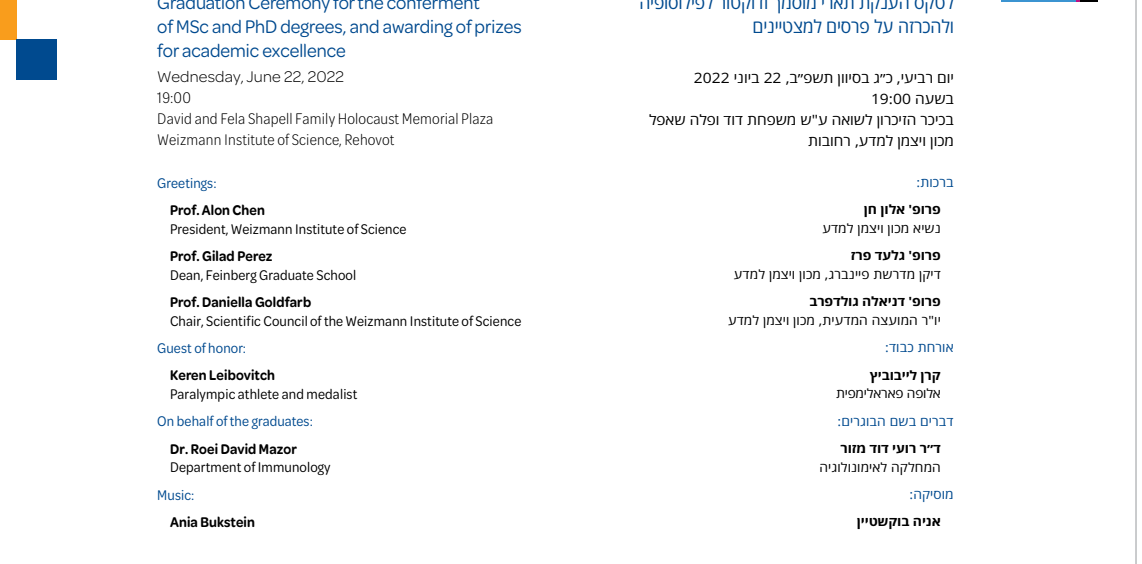
# Feinberg Graduate School

## Graduates 2022



מכון ויצמן למדע  
WEIZMANN INSTITUTE OF SCIENCE





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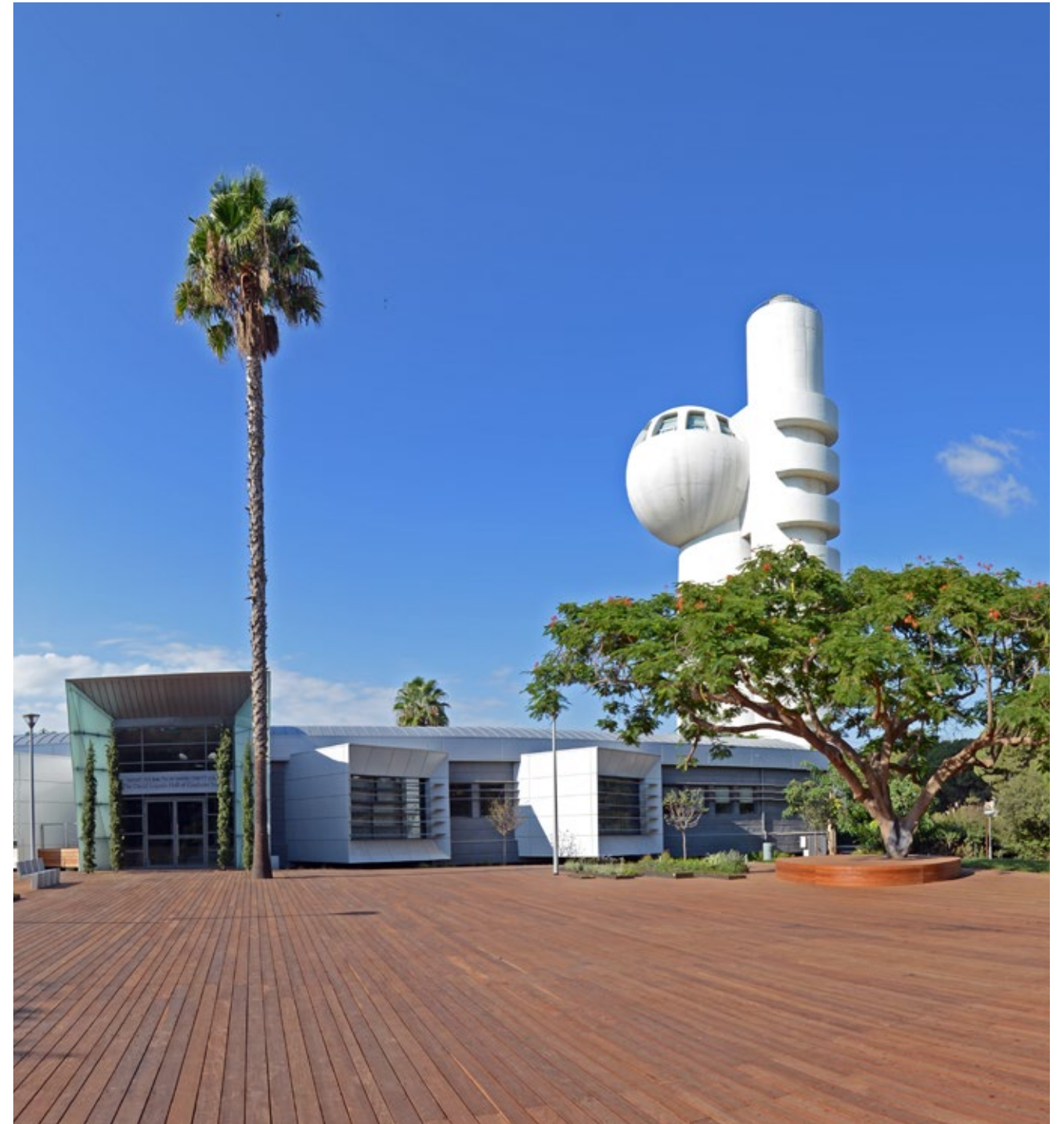
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# The Weizmann Institute of Science

The Weizmann Institute of Science is one of the world's leading institutions of basic scientific research in all disciplines of natural and exact sciences: mathematics and computer sciences, physics, chemistry, biochemistry and biology. Its scientists conduct studies in fields that are on the cutting edge of science and that serve to enrich human knowledge about the world around us and our role in the universe. The Institute's unique character encourages numerous multidisciplinary collaborations in all areas of research. Weizmann Institute investigations greatly further the development of new technologies and alternative sources of energy and the invention of new materials, medicines, and state-of-the-art medical treatment. Nearly 4,000 scientists, students, technicians, and administrative staff make up the Weizmann community on campus. The Institute also invests considerable efforts and resources in science education and literacy for school-age children. The budget of the Weizmann Institute is approximately one billion shekels—a quarter of which is granted by the Israeli government, with the remainder originating from grants won by the Institute's scientists as well as from donations and scholarships.



# The Feinberg Graduate School

The Feinberg Graduate School is the academic arm of the Weizmann Institute of Science. It was founded in 1958 with the support of the United States government. The Graduate School is named for Abraham Feinberg LLB (USA) founder and first chair of its Board of Trustees. The main goal of the Feinberg Graduate School (FGS) is the advanced training of the next generation of creative and original researchers in the natural sciences and mathematics, who will go on to become scientific leaders.

The Graduate School offers Master of Science (MSc) and Doctor of Philosophy (PhD) programs in physics, chemistry, life sciences, mathematics and computer science, and science teaching. Interdisciplinary programs are widespread and encouraged.

Since its founding, FGS has been an accredited institution of higher learning in Israel. It later received an absolute charter granted by the Board of Regents of the State of New York. The instructors and advisors of the Graduate School are members of the scientific staff of the Weizmann Institute of Science. Currently, there are over 1,100 graduate students, with a student-teacher ratio of 4:1, enabling considerable individual attention. The official language of instruction is English, which allows foreign students to participate fully in all of the Graduate School's programs. The only criteria for acceptance to FGS are academic excellence and scientific integrity. Admission to all programs and activities is granted without regard to race, gender, sexual orientation, religion, or nationality. All students are directly involved in the research conducted at the Weizmann Institute, and receive scholarships that allow them to devote all their energies to research and study. There are no tuition fees.

The Graduate School consists of five Research Schools: the Solo Dwek and Maurizio Dwek Research School of Chemical Science, the Ekard Research School of Biological Science, the Lorry I. Lokey Research School of Biochemical Science, the Moross Research School of Mathematics and Computer Science, and the André Deloro Research School of Physical Science.

These schools provide an extra boost to the students' immersion into scientific research, supporting them in their becoming mature scientists. The Research Schools also offer students a wide range of opportunities for personal development, such as scientific travel grants to facilitate expanded contacts with the international research community, and greater exposure to world leaders in their fields. Each Research School is headed by a Director appointed by the Dean of FGS, and each Director is assisted by a Board of Studies that coordinates all activities in the relevant discipline.

The Feinberg Graduate School is responsible for the administrative and academic aspects of postdoctoral training at the Weizmann Institute of Science. FGS also coordinates the Kupcinet-Getz International Summer Science School for outstanding international undergraduate students.

The Feinberg Graduate School is headed by a Dean, assisted by the Academic Secretary of the School and by a steering committee consisting of the Directors of the Research Schools. The Graduate School Office coordinates all the general administrative operations of FGS.





**Prof. Alon Chen**  
President,  
Weizmann Institute of Science

Dear graduates and families of the graduates.

I want to congratulate you on achieving this incredible milestone: an advanced degree from the Weizmann Institute of Science. This success is not to be taken for granted, especially after two-and-a-half years of the coronavirus pandemic. MAZAL TOV!

Your success is our success. You will go out into the world and make a difference, and in this way, the Weizmann Institute has an enormous, worldwide impact on science.

Some of you are headed to careers in academia, others to industry, others to education and beyond. No matter which path you choose, you will bring with you not only your scientific knowledge but the spirit of science—the curiosity, the aspiration to search for truth, to reveal new knowledge to the world.

To the families of our graduates, I want to say: The Weizmann Institute may have educated your graduate for the last handful of years, but it was you who laid the path to our front door, offering the support and the encouragement that is essential in developing careers in science.

Thank you all,

A stylized, handwritten signature in dark ink, appearing to read 'Alon Chen'.

Prof. Alon Chen





**Prof. Gilad Perez**  
Dean,  
Feinberg Graduate School

Dear graduates and families,

I would like to highlight and celebrate two aspects of your journey here: courage and freedom.

Now, why should we talk about courage: First, you’ve all shown courage when you chose to follow your passion and pursue graduate studies in basic science, here at Weizmann. Doing this with no guaranteed outcome, many times being outside of your comfort zone, away from your alma mater (and possibly country) when there are so many materialistic options out there, pulling you into more practical paths.

Second, doing basic research implies that you all had to face the sometimes terrifying feeling of not knowing if there is an answer to your scientific question. Yet you all overcame this challenge, obtained new results and/or new discoveries, rightfully earning your Master and PhD degrees. This has some undeniable truth in it and worth celebrating.

Dear Graduates, scientific progress strives to generate new information, and that is not easy; there is no algorithm for it, and everyone has to find their way on their own. But there is one key element without which basic research will cease of its own accord and simply die, and that is freedom.

It is the freedom to think, to choose what to investigate, and the freedom of how to investigate, and with whom to cooperate. One of the fundamentals of our work here at the Institute is that we allow our researchers to have almost complete autonomy (“bottom up”), and we invite all outstanding students to come and join us. As we see it, this is the only way to surge beyond the current limits of human knowledge. Currently, the striving for true ideological and physical freedom unfortunately takes on new meaning, when around us entire nations are losing their freedom. I am pleased that all of you here experienced full academic freedom on the course of successfully conducting your research efforts, and that is something that is worth celebrating.

We hope that the joy of freedom of thought, and the courage with which you conducted your research, will accompany in all your future endeavors.

Dear graduates: MAZAL TOV and congratulations!

Prof. Gilad Perez



**Prof. Daniella Goldfarb**  
Chair,  
Scientific Council

Dear graduates,

On behalf of the Weizmann Institute of Science Scientific Council I would like to congratulate you, our graduates, on the day you receive your PhD and MSc degrees for which you worked so hard. The Weizmann Institute Scientific Council is comprised of all the Institute’s professors. It engages in the Institute’s academic affairs, among them approving the recommendation of the Feinberg Graduate School to award you these degrees.

This a special and important day for you, and it is also very significant for us, the scientists, your advisors, for whom an important and central part of our work, in addition to research, is educating the next generation of scientists. Each year, along with my colleagues, I am proud of you, excited with you each time anew.

The world as we knew it changed considerably over the past two years: we experienced a pandemic that disrupted our lives, and the outbreak of a merciless war in Europe after we believed that such events were a bygone, and in Israel we are witnessing a surge of physical and verbal violence, both face to face and digital on social media. But remember - science has no borders, it is a unifying force that brings people together in the face of all these difficult situations, and we, the scientists, must continue to uphold this invaluable value.

Our thanks and best wishes to your families that accompanied you along the way, supported and encouraged when you experienced failures and celebrated your successes with you. After all, how can we appreciate success if we have not experienced failure.

One of the hallmarks of the Weizmann Institute, is its international atmosphere, which stems from our many graduates that come from all over the globe. Now that you leave the Weizmann to the next station in your scientific career, you carry with you the very special spirit and values of this institute: lowering boundaries, embracing curiosity, questioning and not fearing exploring uncharted territories. These are cherished not only in the academic world. Finally I quote the great Physicist Richard Feynman “We absolutely must leave room for doubt or there is no progress and no learning.”

Congratulations and much success.

Prof. Daniella Goldfarb





### Yael Goren-Wegman

Executive Director  
Israeli Friends Association  
& Alumni Organization  
Weizmann Institute of Science

Dear graduates,

On behalf of the Alumni Organization, I would like to welcome you to the alumni community of the Weizmann Institute of Science. By choosing to pursue an advanced science degree at Weizmann, you followed your passion and curiosity and demonstrated a true commitment to conduct research to the benefit of humanity.

This year, the COVID vaccines have enabled us to meet face to face to celebrate your graduation in a festive event thanks to years of dedicated work of scientists who continue to work tirelessly to find solutions that allow a pandemic life routine. As young scientists, from now on, you will be taking part in the efforts to harness technology and innovation to help the world cope with such local and global challenges.

Our lifetime connections with our graduates have become a tradition of the Weizmann family, and we encourage you to keep in touch with us and let us be part of your professional journey. The Alumni Organization holds face-to-face and online activities, and we will be happy to hear about your experience and facilitate your networking. By connecting to our exclusive alumni platforms, you can interact with fellow graduates working in various Israeli and international companies and attend career-related lectures and events. To benefit from our resources, you can access our LinkedIn, Facebook, and Instagram pages. The Weizmann experience opens numerous doors and paths for further research, innovation, and entrepreneurship, and we wish you success and fulfillment in your professional life, whether in academia, in the industry, or at the intersection of the two. As Weizmann graduates, you will always be part of a leading community that plays a vital role in promoting our values and paving the way to the success of the next Weizmann generations.

Every discovery begins with curiosity, questions, and doubts. This is the foundation of scientific research, and it is here that your journey begins. May it be interesting and fulfilling!

Yael Goren-Wegman



## Alumni Organization

The Weizmann Institute of Science Alumni Organization is your connection to more than 7,000 alumni, holding key positions and leading roles in industry and academia in Israel and worldwide. The Alumni Organization is committed to establish a mutually beneficial relationship between the Institute and its alumni, through joint activities, events and networking opportunities.

☎ 08-9342212

🌐 <https://www.weizmann.ac.il/alumni>

✉ [alumni@weizmann.ac.il](mailto:alumni@weizmann.ac.il)

📘 <https://www.facebook.com/weizmann.alumni/>

🌐 <https://www.linkedin.com/company/29019774/>





**Keren Leibovitch**

Paralympic athlete and medalist

To attain a gold medal you have to invest years of hard work and numerous hours every day, even when it gets difficult, when you're tired. I'm sure you all know the feeling.

I was wounded when serving in the army, in the officer's course. Due to a deviation from procedures I carried an inappropriately heavy load and my back did not withstand the weight and collapsed.

I underwent two spinal surgeries. At the end of the rehabilitation process I could walk short distances with crutches and used a wheelchair for longer distances. I participated as a swimmer in three Olympic Games and won seven medals, four of them gold.

Sixteen years ago, with the worsening of my injury, I underwent complex shoulder surgery, with surgery complications that resulted in a paralyzed arm. This predicament forced me to get around only in a wheelchair and robbed me of the dream to sit on the podium with my children and to end the sports chapter in my life.

To gain a sense of closure I decided to try to swim across the English Channel. My coach and I estimated that the crossing would take about 17 hours. A long swim of this magnitude requires enormous aerobic endurance, significant mental endurance, and an insulating layer of fat because of the very cold water. In order to gain weight uniformly I began to practice Pilates. After about a year of practice I felt that my paralyzed abdomen could support me in the wheelchair, and I changed my dream. I decided that I would walk again.

Eight years ago, following a long training process of about three years and about five hours a day, I was able to get up from the wheelchair, and today I walk with the help of crutches. I developed a work method that is based on Pilates and uses the center of the body as a stabilizer and as a producer of movement. Using this method I take people with a disability or a physical limitation through a physical rehabilitation process, which in most cases is also mental, and sometimes even spiritual, and help them walk again, or at least significantly improve their quality of life. Enhancing the quality of life, physically and mentally, has a ripple effect, inspiring good among those in the trainee's immediate circle as well as among more distant circles. I feel that by helping these people I am doing good.

Observing the trainees' rehabilitation process enables me to understand the relationship between body, emotion, mind and spirit in the make-up of humans. The physical rehabilitation process while regaining control over both physical and mental strengths, is in my eyes analogous to the development of a new idea. Sometimes there is a flash of a mental picture of the place we aspire to reach physically. This place becomes a goal to be achieved through a Sisyphean process of tiny steps in the

general direction of increased strength and understanding, and these tiny steps are what enables us to set a goal. Among my trainees the goal may be to walk again, and for you certain research.

A goal is like the sun, like a spotlight. It marks and illuminates the path and enables a process of growth, change and understanding. A goal can propel you forward, and therefore in setting it you must aim as high as possible, even higher than what you imagine possible - because a goal is something to aspire to, not necessarily to achieve. Sometimes, by the very act of walking on the path towards the goal you discover wonderful things. Sometimes you even discover the good.

All of you, the recipients of the advanced degrees, are most likely familiar with walking this Sisyphean path.

Plato said that the one most suited to rule is the philosopher king, as they know what is good and do good.

Dear graduates, you are our knowers of the good. Go out and do good.



**On behalf of the graduates**  
**Dr. Roei Mazor**

Department of Immunology

Honorable guests, dear graduates:

My private journey to uncover scientific truths began unknowingly, almost two decades ago, while accompanying my late mother among hospital oncology departments. It is the nature of human beings, it seems, to spend their days worrying about the small things, without understanding that the genuine reasons for concern await us and surprise us, without warning, out of the blue.

The human body is one of the most complex and complicated creations. An unprecedented wonder. A real miracle. An end product developed, formed, augmented, and adapted to the environment by virtue of natural selection over about 3.5 billion years. We are composed of tens of trillions of cells, their number surpassing that of all the fixed stars in our galaxy. A highly mixed variety of cells, meticulously organized and specialized in a panorama of functions, that work together, in perfect congruence, like the best of orchestras. However, sometimes, only one recalcitrant player is needed in order to disrupt the music.

Cancer in particular, and disease in general, together present one of the most stubborn and significant challenges in the history of humankind. However, it is only one challenge among many. The challenges which the future brings are the most difficult and complex in our generation. Most of them, should they arise, are the stumbling blocks that separate us from a better future for us and for our children. Some will even determine the future of our existence on this earth. The pessimists will say that we have crossed the Rubicon. That we have passed the point of no return. And in general, that it is beyond our ability to overcome the already slim chances of climbing these summits. They will say that we face the improbable, the unsolvable, the impossible.

These challenges, will we be able to overcome them?

Just imagine the enthusiasm of Gregor Mendel, the father of modern genetics, if in 1863 he was told that we had long ago mapped the human genome; that genetic engineering is gradually making terrible genetic diseases a relic of the past, and that we are reaping achievements in eradicating malignant diseases using immune cells genetically engineered to seek and destroy cancer cells.

Imagine the reaction of Johannes Kepler, who about four hundred years ago described the orbit of the planets around the sun. Imagine his amazement if he heard that humans had burst the boundaries of the heavens and sent spaceships to the planets and to the void beyond. Imagine his response if he heard that a space telescope named after him found countless earth-like planets, in foreign solar systems, across endless distances that are virtually unfathomable.

These challenges, will we be able to overcome them? We definitely will! It is within our reach if we only choose to do so.

We will choose to overcome them, and we will prevail, despite the accumulated difficulties, the great frustration and the uncertainty. We will be able to overcome them with creativity and curiosity, with dedication and a belief in the rightness of the cause. We will be able to overcome them by striving for the unknown and a vision of being a part of something bigger than us. We will be able to overcome them with farsightedness, with determined persistence and by aspiring for a better tomorrow. We will be able to overcome them in the aim of illuminating our path going forward. Close your eyes and just imagine, what discoveries, scientific breakthroughs and unprecedented technological leaps still await us beyond the time of our generation, in our children's generation.

The scientific method is a tool for building human knowledge. It is a means at our disposal, the driving force for bringing progress. The Weizmann Institute of Science, this amazing place hosting us now, is a living example of this, and time is too short to elaborate. In 1965 Sir Isaac Newton coined an iconic phrase that accompanies every scientist to this day: "if I have seen further than my peers it is by standing on the shoulders of giants". In building knowledge, we build our part, on the solid foundations laid by our predecessors. There is no better distillation of the nature of this place and its giants.

I would like to thank Professor Ziv Shulman and Professor Irit Sagi, my advisors, for the massive wind beneath my wings. In doing so, on behalf of the graduates I would like to thank all the heads of the research groups at the Weizmann Institute of Science; the faculty scientists; the technical faculty and the staff in the research support divisions; our student and post-doctoral colleagues; the secretaries and administrative heads in the science departments, and the Feinberg Graduate School staff. Our success is your success. Finally, a special thanks is owed to our families for their unwavering support at home, without which we could not have come this far. Among them, my parents, Avi and Etty, my wife Mira, and my children – Harel, Yair and Tamar.

Our children are our future. We will do well to cultivate their curiosity, to instill in them the love of science and learning, impart the tools for critical thinking and underscore the importance of a strong moral backbone. If we can instill in them the belief, that no dream is too big for them. If we place them on the right path. Then, when the day comes, they, the architects of the future, will embark on their own journey to study the truth, on their way to scaling new heights.

# Prizes for outstanding PhD students

## The John F. Kennedy Prize

The John F. Kennedy Memorial Prizes are sponsored by the Fund that was established at the Institute in memory of the late US President John F. Kennedy.

### **Mr. Abhishek Banerjee**

Advisor: Prof. Gilad Perez, Department of Particle Physics and Astrophysics

### **Dr. Yoni Kasten**

Advisor: Prof. Ronen Basri, Department of Computer Science and Applied Mathematics

### **Ms. Adi Egozi**

Advisor: Prof. Shalev Itzkovitz, Department of Molecular Cell Biology

### **Mr. Tamir Eliav**

Advisor: Prof. Nachum Ulanovsky, Department of Brain Sciences

## The Dimitris N. Chorafas Prize

Dr. Dimitris Chorafas (1926-2014) advisor, author, thinker and philanthropist, established a foundation that awards scientific prizes for outstanding work in selected fields. Each year the foundation accepts candidates from a small number of selected prestigious universities from around the world, including the Weizmann Institute of Science.

### **Dr. Rotem Tsabary**

Advisor: Prof. Zvika Brakerski, Department of Computer Science and Applied Mathematics

### **Dr. Dan Deviri**

Advisor: Prof. Sam Safran, Department of Chemical and Biological Physics

## The Prof. Israel Dostrovsky Memorial Prize

The Weizmann Institute of Science and the Israel Atomic Energy Commission jointly award an annual prize for excellence in memory of Prof. Israel Dostrovsky who served as the Director of the IARC and as the 5th President of the Weizmann Institute of Science.

### **Mr. Gur Lubin**

Advisor: Prof. Dan Oron, Department of Physics of Complex Systems

### **Dr. Nir Galili**

Advisor: Prof. Itay Halevy, Department of Earth and Planetary Sciences

## The Ruth and Prof. Abraham (Edek) Blaugrund Prize

After joining the Weizmann Institute in the 1950's, Prof. Abraham Blaugrund made significant contributions to the field of plasma physics. The Ruth and Prof. Abraham (Edek) Blaugrund Prize was established by the Blaugrund family, and it is awarded to outstanding PhD students in Physics.

### **Mr. Amit Aharon Steinberg**

Advisor: Prof. Eli Zeldov, Department of Condensed Matter Physics

## The Elchanan E. Bondi Memorial Prize

Dr. Elchanan Bondi died in 1971. Elchanan did his doctoral thesis in the Department of Biophysics while suffering from a kidney disease.

### **Mr. Eran Zafrani**

Advisor: Prof. Anat Yarden, Department of Science Teaching

## The Dov Elad Memorial Prize

Prof. Dov Elad died in 1979. Dov was a professor of chemistry and chaired the Board of Studies in Chemical Sciences. He contributed significantly to the Institute and to the Graduate School.

### **Mr. Avraham Moriel**

Advisor: Prof. Eran Bouchbinder, Department of Chemical and Biological Physics

## The Shimon Reich Memorial Prize

Prof. Shimon Reich died in 2010. Shimon was a professor in the Department of Materials and Interfaces, of the Faculty of Chemistry, at the Weizmann Institute of Science for forty years.

### **Mr. Gabriel Javitt**

Advisor: Prof. Deborah Fass, Department of Chemical and Structural Biology

### **Mr. Ilai Guendelman**

Advisor: Prof. Yohai Kaspi, Department of Earth and Planetary Sciences



# Prizes for outstanding PhD students

## The Gad Resheff Memorial Prize

Gad Resheff was killed in 1973 during the Yom Kippur War while serving as the commander of an outpost at the Suez Canal. He was awarded the Medal of Valor posthumously. Gad was a doctoral student in the Department of Biophysics.

### **Ms. Nitzan Tal**

Advisor: Prof. Rotem Sorek, Department of Molecular Genetics

## The Giora Yoel Yashinski Memorial Prize

Giora Yoel Yashinski was killed in action in 1971 in an air force plane that crashed on the Sinai coast. Giora completed his studies towards a Master's Degree in the Department of Chemical Physics.

### **Dr. Gal Manella**

Advisor: Prof. Gad Asher, Department of Biomolecular Sciences

## The Daniel Brenner Memorial Prize

Daniel Brenner was killed during the 1982 Lebanon War: Operation Peace for Galilee in the Battle of Sidon. Daniel was a doctoral student in the Department of Chemical Physics.

### **Mr. Yinon Moise Bar-On**

Advisor: Prof. Ron Milo, Department of Plant and Environmental Sciences

## The Lady Anne Chain Memorial Prize

Lady Anne Chain was a noted researcher and friend of the Weizmann Institute of Science for many years.

### **Mr. Liron Sheintuch**

Advisor: Prof. Yaniv Ziv, Department of Brain Sciences

## The Esther Hellinger Memorial Prize

Dr. Esther Hellinger was born in England. She joined the staff of the Daniel Sieff Research Institute upon its establishment in 1934 and worked with Dr. Chaim Weizmann.

### **Mr. Itamar Vigdorovich**

Advisor: Prof. Uri Bader, Department of Mathematics

## The Haim Holtzman Memorial Prize

Haim Holtzman was killed in 1969. Haim was an air force pilot. He died while trying to land his burning plane, beyond the residential area of northern Rehovot.

### **Dr. Lia Heinemann Yerushalmi**

Advisor: Prof. Elazar Zelzer, Department of Molecular Genetics

## The Menashe Milo Memorial Prize

Menashe Milo completed his studies in Physics as part of the academic reserves. During the Yom Kippur War, Menashe fought in the Golan Heights as a tank commander. Menashe died suddenly in 1981.

### **Mr. Ido Rog**

Advisor: Dr. Tamir Klein, Department of Plant and Environmental Sciences

## The Lonia and Jose Roth Memorial Prize

The prize is awarded for outstanding Ph.D. thesis research combined with excellence in writing in English. Lonia and Jose M. Roth were Holocaust survivors who admired both the natural sciences and fine writing. This Prize is in memory of their lifelong support of the Weizmann Institute and of Israel.

### **Dr. Shir Nevo (Katz)**

Advisor: Prof. Jakub Abramson, Department of Immunology

## The Dean's Prize for PhD Students

### **Dr. Roei David Mazor**

Advisors: Prof. Ziv Shulman and  
Prof. Irit Sagi, Department of Immunology



# Prizes for outstanding MSc students

## The Susan Sapir Memorial Prize for MSc students

Susan Sapir worked for many years at the Weizmann Institute of Science in various position and with great devotion. The most senior of these was the Head of the Research Grants and Projects Office.

### **Ms. Oryna Ivashtenko**

Advisor: Dr. Barak Zackay, Department of Particle Physics and Astrophysics

## The Dean's Prize for outstanding MSc students

### **Mr. Federico De Vito Halevy**

Advisors: Dr. Shikma Bressler and  
Prof. Yosef Nir, Department of Particle Physics and Astrophysics

### **Mr. Lior Faeyrman**

Advisor: Prof. Nirit Dudovich, Department of Physics of Complex Systems

### **Mr. Dor Mezer**

Advisor: Prof. Dmitry Gourevitch, Department of Mathematics

### **Mr. Guy Kornowski**

Advisor: Prof. Ohad Shamir, Department of Computer Science and Applied Mathematics

### **Ms. Hodaya Koslowsky**

Advisor: Prof. Ronen Basri, Department of Computer Science and Applied Mathematics

### **Mr. Philip Alexander Freund**

Advisor: Prof. Mike Fainzilber, Department of Biomolecular Sciences

### **Mr. Avi Gluck**

Advisor: Prof. Noam Stern-Ginossar, Department of Molecular Genetics

### **Ms. Gal Goldman**

Advisor: Prof. Elad Schneidman, Department of Brain Sciences

### **Mr. Vladyslav Holiar**

Advisor: Dr. Moshe Biton, Department of Immunology and Regenerative Biology

### **Mr. Amit Kahana**

Advisors: Prof. Doron Lancet and  
Prof. Oded Aharonson, Department of Molecular Genetics





# Competitive Fellowships

For outstanding  
PhD students

Clore Scholars Program

Adams Fellowships Program

Azrieli Fellows program

Ariane de Rothschild Fellowship Program for Women

Israel Ministry of Science and Technology Fellowship Program

Israel Council for Higher Education and the Planning and Budgeting Committee Fellowship programs

# Competitive Fellowships

For outstanding  
MSc students

David Lopatie Fellows Program

Israel Council for Higher Education and the Planning and Budgeting Committee Fellowship programs



# PhD Recipients

Dr. Ruti Agou Ben Shlomi  
Dr. Maya Amitai  
Dr. Ayelet Avin Golan  
Dr. Snir Ben Ovadia  
Dr. Shani Ben-Moshe  
Dr. Rajarshi Bhattacharyya  
Dr. Reut Bickels Nuri  
Dr. Lavi Bigman  
Dr. Karin Broennimann  
Dr. Shachar Carmeli  
Dr. Michal Chappleboim  
Dr. Kesava Phaneendra Cherukuri  
Dr. Arnaud Courvoisier  
Dr. Sandipan Dasgupta  
Dr. Keren David  
Dr. Dan Deviri  
Dr. Benjamin Dubreuil  
Dr. Raz Dvir-Szternfeld  
Dr. Enas Easa  
Dr. Chen Eitan  
Dr. Shay Eizenberger  
Dr. Noa Eren  
Dr. Tzah Feldman  
Dr. Yael Feldman-Maggor  
Dr. Nir Galili  
Dr. Miguel Angel Garcia Campos  
Dr. Rachel Garrick  
Dr. Yuval Garty  
Dr. Anat Gershoni  
Dr. Nitzan Geva  
Dr. Ron Goldner  
Dr. Erez Itzhak Greenstein  
Dr. Charlotte Amalie Grenov  
Dr. David Gruia  
Dr. Ilai Guendelman  
Dr. Adam Haber  
Dr. Shira Haber  
Dr. Lia Heinemann Yerushalmi

Dr. Dotan Hoffman  
Dr. Anna Hoffmann  
Dr. Alon Ivtsan  
Dr. Assaf Kacen  
Dr. Yoni Kasten  
Dr. Jiyeon Kim  
Dr. Yael Korem Kohanim  
Dr. Mira Korulski-Rosenthal  
Dr. Libby Kosolapov  
Dr. Tomer Landsberger  
Dr. Dan Levy  
Dr. Hadas Lewinsky  
Dr. Wenhong Li  
Dr. Ron Livneh  
Dr. Inbal Rachel Livni Navon  
Dr. Alon Luski  
Dr. Harsh Maan  
Dr. Martino Maddalena  
Dr. Simon Mahler  
Dr. Evgeniy Makagon  
Dr. Gal Manella  
Dr. Tom Manovitz  
Dr. Michal Mark  
Dr. Hagai Marmor-Kollet  
Dr. Neta Marmor-Kollet  
Dr. Roei David Mazor  
Dr. Daphne Meidan  
Dr. Anna Meshcheriakova  
Dr. Dan Mikulincer  
Dr. Stav Miller  
Dr. Asaf Miron  
Dr. Subhradeep Misra  
Dr. Ori Ezra Mor Markovsky  
Dr. Jonathan Morag  
Dr. Jonathan Daniel Muller  
Dr. Bharath Vijayaragava Muralikrishnan  
Dr. Adi Nagler  
Dr. Michelangelo Naim

Dr. Lian Narunsky Haziza  
Dr. Abhay Kumar Nayak  
Dr. Boaz Avraham Negin  
Dr. Shir Nevo (Katz)  
Dr. Yael Nurick  
Dr. Gal Chaim Nuta  
Dr. Ella Ofek-Geva  
Dr. Ran Reuven Orgad  
Dr. Prerna Paliwal  
Dr. Georgia Prokopiou  
Dr. Dekel Raanan  
Dr. Yoav Rechavi  
Dr. Ofer Regev  
Dr. Carol Winnifred Rodricks  
Dr. Ido Rog  
Dr. Hagai Rossman  
Dr. Uri Rossman  
Dr. Noa Sadeh  
Dr. Ran Salomon  
Dr. Nitzan Samra  
Dr. Ella Sanders  
Dr. Ayelet Sarel  
Dr. Gil Schwartz  
Dr. Dan Shaked Renous  
Dr. Avraham Shakked  
Dr. Alexander Shamov  
Dr. Tom Shani  
Dr. Adar Sharon  
Dr. Daoud Sheban  
Dr. Margarita Shepelenko (Kovtanyuk)  
Dr. Smadar Shilo  
Dr. Viacheslav Smartsev  
Dr. Yizhak Sofer  
Dr. Rafael Stern  
Dr. Sivan Struass  
Dr. Ohad Suss  
Dr. Liran Szlak  
Dr. Deva Nishanth Tirukoti

Dr. Rotem Tsabary  
Dr. Afroditi Tsitsou-Kampeli  
Dr. Ilia Tutunnikov  
Dr. Adi Ulman  
Dr. Shay Vimer  
Dr. Jonathan Weinstein  
Dr. David Wiener  
Dr. Xin Yan  
Dr. Eden Yifrach  
Dr. Yu Zhang



ד"ר מיה אמיתי  
Dr. Maya Amitai

המחלקה למדעי המוח  
בהדרכת פרופ' אלון חן

Department of Brain Sciences  
Advisor: Prof. Alon Chen

**Thesis:**  
Biomarkers predicting response and adverse events in depressed and anxious children and adolescents treated with SSRIs



ד"ר חן איתן  
Dr. Chen Eitan

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' ערן הורנשטיין

Department of Molecular Genetics  
Advisor: Prof. Eran Hornstein

**Thesis:**  
Role of regulatory non-coding regions in the pathogenesis of Amyotrophic Lateral Sclerosis



ד"ר שי איזנברגר  
Dr. Shay Eizenberger

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' ורדה רוטר

Department of Molecular Cell Biology  
Advisor: Prof. Varda Rotter

**Thesis:**  
Unraveling the mechanism underlying mutant p53 reactivation by small peptides: Towards a novel anti-cancer therapy



ד"ר לביא ביגמן  
Dr. Lavi Bigman

המחלקה לביולוגיה מבנית וכימית  
בהדרכת פרופ' קובי לוי

Department of Chemical and Structural Biology  
Advisor: Prof. Koby Levy

**Thesis:**  
Disorder in molecular trafficking and protein stability



ד"ר רג'רשי בטצ'ריה  
Dr. Rajarshi Bhattacharyya

המחלקה לפיסיקה של חומר מעובה  
בהדרכת פרופ' מוטי הייבלום

Department of Condensed Matter Physics  
Advisor: Prof. Moty Heiblum

**Thesis:**  
Electron and quasiparticle interferometry in the quantum hall regime



ד"ר נועה ארן  
Dr. Noa Eren

המחלקה למדעי המוח  
בהדרכת פרופ' אלון חן

Department of Brain Sciences  
Advisor: Prof. Alon Chen

**Thesis:**  
Social behavior in a social context: Lessons from studying genetic and neuronal manipulations affecting social behavior in a complex environment



ד"ר עדי אולמן  
Dr. Adi Ulman

המחלקה לאימונולוגיה  
בהדרכת ד"ר יפעת מרביל

Department of Immunology  
Advisor: Dr. Yifat Merbl

**Thesis:**  
Deciphering ubiquitin-dependent mechanisms of protein and cellular function



ד"ר רותי אגובן שלומי  
Dr. Ruti Agou Ben Shlomi

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' רועי עוזרי

Department of Physics of Complex Systems  
Advisor: Prof. Roee Ozeri

**Thesis:**  
When a cold atom meets an excited ion: A single optical ion qubit in a meta-stable state surrounded by ultra-cold atoms



ד"ר איילת אבין גולן  
Dr. Ayelet Avin Golan

המחלקה לאימונולוגיה  
בהדרכת פרופ' יעקב אברמסון

Department of Immunology  
Advisor: Prof. Jakub Abramson

**Thesis:**  
Exploiting breakdown of self-tolerance to tissue-specific antigens for cancer immunotherapy



ד"ר אלון איבצן  
Dr. Alon Ivtsan

המחלקה למתמטיקה  
בהדרכת פרופ' גדי קוזמא

Department of Mathematics  
Advisor: Prof. Gady Kozma

**Thesis:**  
Positive speed of tagged particle with jumps of either plus or minus one or two steps in symmetric exclusion process on the one-dimensional integer lattice



ד"ר רן ראובן אורגד  
Dr. Ran Reuven Orgad

המחלקה לאימונולוגיה  
בהדרכת פרופ' יאיר רייזנר

Department of Immunology  
Advisor: Prof. Yair Reisner

**Thesis:**  
Novel pluripotent lung stem cells and their therapeutic potential



ד"ר אלה אופק-גבע  
Dr. Ella Ofek-Geva

המחלקה להוראת המדעים  
בהדרכת פרופ' דוד פורטס

Department of Science Teaching  
Advisor: Prof. David Fortus

**Thesis:**  
How do the personal experiences of adolescents, aged 10-14, affect their affinity toward science and for science learning?



ד"ר דוד גרויה  
Dr. David Gruia

המחלקה לביולוגיה מבנית וכימית  
בהדרכת ד"ר הגן הופמן

Department of Chemical and Structural  
Biology  
Advisor: Dr. Hagen Hofmann

**Thesis:**  
A new approach to monitor stochastic  
gene expression at single-molecule  
resolution



ד"ר עילי גנדלמן  
Dr. Ilai Guendelman

המחלקה למדעי כדור הארץ וכוכבי הלכת  
בהדרכת פרופ' יוחאי כספי

Department of Earth and Planetary  
Sciences  
Advisor: Prof. Yohai Kaspi

**Thesis:**  
Seasonal effects on planetary climate



ד"ר ניר גלילי  
Dr. Nir Galili

המחלקה למדעי כדור הארץ וכוכבי הלכת  
בהדרכת פרופ' איתי הלוי

Department of Earth and Planetary  
Sciences  
Advisor: Prof. Itay Halevy

**Thesis:**  
Developing iron oxides and oxyhydroxides  
as paleohydrological and paleoclimatic  
archives



ד"ר שרלוחה אמליה גרנוב  
Dr. Charlotte Amalie Grenov

המחלקה לאימונולוגיה  
בהדרכת פרופ' זיו שולמן

Department of Immunology  
Advisor: Prof. Ziv Shulman

**Thesis:**  
Regulation of the B cell immune response  
by cell cycle and differentiation mediators



ד"ר ארז יצחק גרינשטיין  
Dr. Erez Itzchak Greenstein

המחלקה לאימונולוגיה  
בהדרכת פרופ' ניר פרידמן  
ד"ר אסף מדי

Department of Immunology  
Advisors: Prof. Nir Friedman  
Dr. Asaf Madi

**Thesis:**  
Analyzing TCR repertoires of tumor  
infiltrating lymphocytes



ד"ר יובל גרטי  
Dr. Yuval Garty

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' זיו רייך

Department of Biomolecular Sciences  
Advisor: Prof. Ziv Reich

**Thesis:**  
Structural modulations of the  
photosynthetic apparatus in higher plants  
during varying light conditions



ד"ר שני בן-משה  
Dr. Shani Ben-Moshe

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' שלו איצקוביץ

Department of Molecular Cell Biology  
Advisor: Prof. Shalev Itzkovitz

**Thesis:**  
Spatial heterogeneity in the mammalian  
liver



ד"ר שניר בן עובדיה  
Dr. Snir Ben Ovadia

המחלקה למתמטיקה  
בהדרכת פרופ' עומרי שריג

Department of Mathematics  
Advisor: Prof. Omri Sarig

**Thesis:**  
Symbolic dynamics and physical  
equilibrium measures in non-uniformly  
hyperbolic dynamics



ד"ר רעות ביקלס נורי  
Dr. Reut Bickels Nuri

המחלקה לביולוגיה מבנית וכימית  
בהדרכת פרופ' אברהם מינסקי  
פרופ' זיו רייך

Department of Chemical and Structural  
Biology  
Advisors: Prof. Abraham Minsky  
Prof. Ziv Reich

**Thesis:**  
De novo transcriptome assembly of  
Acanthamoeba polyphaga and its analysis  
during Mimivirus infection



ד"ר רון גולדנר  
Dr. Ron Goldner

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' אברהם ירון

Department of Biomolecular Sciences  
Advisor: Prof. Avraham Yaron

**Thesis:**  
Deciphering the mechanisms of  
Semaphorin/Plexin signaling in central-  
and peripheral neurodevelopment



ד"ר ניצן גבע  
Dr. Nitzan Geva

המחלקה למדעי המוח  
בהדרכת פרופ' יניב זיו

Department of Brain Sciences  
Advisor: Prof. Yaniv Ziv

**Thesis:**  
Time and experience dependent evolution  
of hippocampal memory codes



ד"ר קרן ברנימן  
Dr. Karin Broennimann

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' יוסף שאול

Department of Molecular Genetics  
Advisor: Prof. Yosef Shaul

**Thesis:**  
A short non-coding HBV RNA region  
upregulates R2 by eliciting the cellular  
DNA damage response





ד"ר שירה הבר  
Dr. Shira Haber

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת ד"ר מיכל לסקס

Department of Molecular Chemistry and  
Materials Science  
Advisor: Dr. Michal Leskes

**Thesis:**  
The Cathode-Electrolyte Interphase:  
Structure and functionality probed by  
solid-state NMR spectroscopy



ד"ר קרן דוד  
Dr. Keren David

המחלקה לאימונוλογία מערכתית  
בהדרכת פרופ' עידית שחר

Department of Systems Immunology  
Advisor: Prof. Idit Shachar

**Thesis:**  
CD74 as a transcription regulator in  
healthy and malignant immune cells



ד"ר בנג'מין דוברוי  
Dr. Benjamin Dubreuil

המחלקה לביולוגיה מבנית וכימית  
בהדרכת פרופ' עמנואל לוי

Department of Chemical and Biological  
Physics  
Advisor: Prof. Emmanuel Levy

**Thesis:**  
Principles of proteome organization and  
evolution



ד"ר אנה הופמן  
Dr. Anna Hoffmann

המחלקה להוראת המדעים  
בהדרכת פרופ' רוחמה אבן

Department of Science Teaching  
Advisor: Prof. Ruhama Even

**Thesis:**  
The contribution of academic  
mathematics studies to teaching  
mathematics in secondary schools: The  
case of knowledge about the discipline of  
mathematics



ד"ר דותן הופמן  
Dr. Dotan Hoffman

המחלקה לבקרה ביולוגית  
בהדרכת ד"ר רועי אברהם

Department of Biological Regulation  
Advisor: Dr. Roi Avraham

**Thesis:**  
A novel non-classical monocyte-derived  
macrophage subset that provides a  
splenic replication niche for intracellular  
Salmonella



ד"ר אדם הבר  
Dr. Adam Haber

המחלקה למדעי המוח  
בהדרכת פרופ' אלעד שניידמן

Department of Brain Sciences  
Advisor: Prof. Elad Schneidman

**Thesis:**  
Architecture and function of small  
neuronal networks



ד"ר ענת גרשוני  
Dr. Anat Gershoni

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' משה אורן

Department of Molecular Cell Biology  
Advisor: Prof. Moshe Oren

**Thesis:**  
The non-cell autonomous role of YAP and  
TAZ in breast cancer



ד"ר רחל גרק  
Dr. Rachel Garrick

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת פרופ' ליאור קרוניק

Department of Molecular Chemistry and  
Materials Science  
Advisor: Prof. Leeor Kronik

**Thesis:**  
Exact generalized Kohn-Sham theory for  
hybrid functionals



ד"ר מיגל אנחל גרסיה קמפוס  
Dr. Miguel Angel Garcia Campos

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' שרגא שוורץ

Department of Molecular Genetics  
Advisor: Prof. Schraga Schwartz

**Thesis:**  
Towards single-nucleotide resolution maps  
of RNA modifications



ד"ר דן דבירי  
Dr. Dan Deviri

המחלקה לפיסיקה כימית וביולוגית  
בהדרכת פרופ' שמואל שפרן

Department of Chemical and Biological  
Physics  
Advisor: Prof. Sam Safran

**Thesis:**  
Out of equilibrium physics and self-  
assembly in the cell and the nucleus



ד"ר רז דביר-שטרנפלד  
Dr. Raz Dvir-Szternfeld

המחלקה למדעי המוח  
בהדרכת פרופ' מיכל שוורץ  
פרופ' עידו עמית

Department of Brain Sciences  
Advisors: Prof. Michal Schwartz  
Prof. Ido Amit

**Thesis:**  
Deciphering the role of resident and  
infiltrating myeloid cells in Alzheimer's  
disease



ד"ר סאנדיפאן דאסגופטה  
Dr. Sandipan Dasgupta

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' ג'פרי גרסט

Department of Molecular Genetics  
Advisor: Prof. Jeffrey Gerst

**Thesis:**  
mRNA-mediated horizontal gene transfer  
in mammalian cells



ד"ר קסין יאן  
Dr. Xin Yan

המחלקה להיחידה לארכיאולוגיה מדעית  
בהדרכת פרופ' אליזבטה בוארטו

Department of Scientific Archeology Unit  
Advisor: Prof. Elisabetta Boaretto

**Thesis:**  
Radiocarbon for historical chronology: The  
Byzantine-Islamic transition in the Negev



ד"ר דווה נישאנת טירוקוטי  
Dr. Deva Nishanth Tirukoti

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת ד"ר אמנון בר שיר

Department of Molecular Chemistry and  
Materials Science  
Advisor: Dr. Amnon Bar Shir

**Thesis:**  
Developing MRI sensors for monitoring  
Zn2+ in biology



ד"ר איליה טיוטוניקוב  
Dr. Ilia Tutunnikov

המחלקה לפיסיקה כימית וביולוגית  
בהדרכת פרופ' איליה אברבון  
פרופ' יחיעם פריאור

Department of Chemical and Biological  
Physics  
Advisors: Prof. Ilya Averbukh  
Prof. Yehiam Prior

**Thesis:**  
Spatiotemporal dynamics of molecular  
rotations and vibrations controlled by  
intense laser fields



ד"ר שחר כרמלי  
Dr. Shachar Carmeli

המחלקה למתמטיקה  
בהדרכת פרופ' דמיטרי גורביץ

Department of Mathematics  
Advisor: Prof. Dmitry Gourevitch

**Thesis:**  
On the relative de Rham theorem for  
Nash submersions and on cyclotomic  
extensions in Chromatic Homotopy Theory



ד"ר יעל כורם כהנים  
Dr. Yael Korem Kohanim

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' אורי אלון

Department of Molecular Cell Biology  
Advisor: Prof. Uri Alon

**Thesis:**  
Evolutionary tradeoffs in biological  
systems



ד"ר עדן יפרח  
Dr. Eden Yifrach

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' מאיה שולדינר

Department of Molecular Genetics  
Advisor: Prof. Maya Schuldiner

**Thesis:**  
Systematic multi-level analysis of the  
peroxisomal proteome as a strategy to  
reveal new peroxisomal functions



ד"ר דוד אלן וינר אבאיו  
Dr. David Wiener

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' שרגא שוורץ

Department of Molecular Genetics  
Advisor: Prof. Schraga Schwartz

**Thesis:**  
Dissecting the roles of N6-  
methyadenosine and poly(A) in  
dynamically shaping the transcriptome



ד"ר אוהד זיס  
Dr. Ohad Suss

המחלקה לביולוגיה מבנית וכימית  
בהדרכת פרופ' דוד מרגוליס

Department of Chemical and Structural  
Biology  
Advisor: Prof. David Margulies

**Thesis:**  
Interactions between synthetic agents and  
protein surfaces: A toolbox for obtaining  
sensitive protein sensing and mimicking  
cell signaling

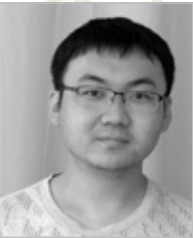


ד"ר שי וימר  
Dr. Shay Vimer

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' מיכל שרון

Department of Biomolecular Sciences  
Advisor: Prof. Michal Sharon

**Thesis:**  
Developing native mass spectrometry  
approaches for the study of protein  
complexes



ד"ר יו ז'אנג  
Dr. Yu Zhang

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת פרופ' יעקב קליין

Department of Molecular Chemistry and  
Materials Science  
Advisor: Prof. Jacob Klein

**Thesis:**  
Friction control between phospholipid-  
bearing surfaces using electric stimuli



ד"ר ליה היינמן ירושלמי  
Dr. Lia Heinemann Yerushalmi

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' אלעזר זלצר

Department of Molecular Genetics  
Advisor: Prof. Elazar Zelzer

**Thesis:**  
Beyond pyruvate dehydrogenase  
kinase family regulation of PDC during  
embryogenesis



ד"ר יהונתן וינשטיין  
Dr. Jonathan Weinstein

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' ישראל פליישמן  
פרופ' אדי בר

Department of Biomolecular Sciences  
Advisors: Prof. Sarel Fleishman  
Prof. Edward Bayer

**Thesis:**  
Towards high-throughput protein design



ד"ר מרטינו מדלנה  
Dr. Martino Maddalena

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' משה אורן

Department of Molecular Cell Biology  
Advisor: Prof. Moshe Oren

**Thesis:**  
Mutp53 in pancreatic cancer: Biological and therapeutic implications



ד"ר הארש מאן  
Dr. Harsh Maan

המחלקה למדעי הצמח והסביבה  
בהדרכת פרופ' אסף אהרוני  
ד"ר אילנה קולודקין-גל

Department of Plant and Environmental Sciences  
Advisors: Prof. Asaph Aharoni  
Dr. Ilana Kolodkin-Gal

**Thesis:**  
The regulation of antibiotic production in Bacillus subtilis at ecologically relevant scenarios



ד"ר תומר לנדסברגר  
Dr. Tomer Landsberger

המחלקה לאימונולוגיה  
בהדרכת פרופ' עידו עמית  
פרופ' מיכל שוורץ

Department of Immunology  
Advisors: Prof. Ido Amit  
Prof. Michal Schwartz

**Thesis:**  
The bright side and the dark side of the immune system in cancer and aging



ד"ר יונתן מורג  
Dr. Jonathan Morag

המחלקה לפיסיקה של חלקיקים ואסטרופיסיקה  
בהדרכת פרופ' אלי וקסמן

Department of Particle Physics and Astrophysics  
Advisor: Prof. Eli Waxman

**Thesis:**  
Analytic model for core-collapse supernovae shock cooling emission calibrated to multigroup diffusion simulations



ד"ר אורי אזרח מור מרקובסקי  
Dr. Ori Ezra Mor Markovsky

המחלקה לפיסיקה כימית וביולוגית  
בהדרכת פרופ' ברק דיין  
פרופ' אברהם שנצר

Department of Chemical and Biological Physics  
Advisors: Prof. Barak Dayan  
Prof. Abraham Shanzer

**Thesis:**  
A new platform for light-matter interaction based on Rare-Earth complexes coating of a tapered nano fibre



ד"ר יונתן דניאל מולר  
Dr. Jonathan Daniel Muller

המחלקה למדעי כדור הארץ וכוכבי הלכת  
בהדרכת פרופ' דן יקיר

Department of Earth and Planetary Sciences  
Advisor: Prof. Dan Yakir

**Thesis:**  
Linking ecosystem productivity to radiative and non-radiative energy management in semi-arid forests



ד"ר דן לוי  
Dr. Dan Levy

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' ויקטור ארמנד מלכא

Department of Physics of Complex Systems  
Advisor: Prof. Victor Armand Malka

**Thesis:**  
Laser-plasma ion acceleration with combined gas-foil targets



ד"ר ענבל רחל לבני נבון  
Dr. Inbal Rachel Livni Navon

המחלקה למדעי המחשב ומתמטיקה שימושית  
בהדרכת פרופ' אירית דינור

Department of Computer Science and Applied Mathematics  
Advisor: Prof. Irit Dinur

**Thesis:**  
Applications of expander graphs in theoretical computer science



ד"ר רן לבנה  
Dr. Ron Livneh

המחלקה לפיסיקה של חלקיקים ואסטרופיסיקה  
בהדרכת פרופ' בועז כץ

Department of Particle Physics and Astrophysics  
Advisor: Prof. Boaz Katz

**Thesis:**  
Type Ia supernovae spectral features



ד"ר ונהונג לי  
Dr. Wenhong Li

המחלקה לאימונולוגיה  
בהדרכת פרופ' בנימין גיגר  
פרופ' אלכסנדר ברשדסקי

Department of Immunology  
Advisors: Prof. Benjamin Geiger  
Prof. Alexander Bershadsky

**Thesis:**  
Novel features of actin cytoskeleton and cell-matrix adhesion revealed by cell spreading on galectin-8 coated substrate



ד"ר אלון לוסקי  
Dr. Alon Luski

המחלקה לפיסיקה כימית וביולוגית  
בהדרכת פרופ' אדוארדס נרייביצ'יוס

Department of Chemical and Biological Physics  
Advisor: Prof. Ed Narevicius

**Thesis:**  
Vortex beams of atoms and molecules



ד"ר הדס לוינסקי  
Dr. Hadas Lewinsky

המחלקה לאימונולוגיה  
בהדרכת פרופ' עידית שחר

Department of Immunology  
Advisor: Prof. Idit Shachar

**Thesis:**  
The role of CD84 as a regulator of the immunosuppressive microenvironment in cancer





ד"ר תום מנוביץ'  
Dr. Tom Manovitz

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' רועי עוזרי

Department of Physics of Complex Systems  
Advisor: Prof. Roei Ozeri

**Thesis:**  
Methods in quantum computation, simulation and measurement with trapped ion chains



ד"ר סימון מלר  
Dr. Simon Mahler

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' ניר דודזון  
פרופ' אשר פריזם

Department of Physics of Complex Systems  
Advisors: Prof. Nir Davidson  
Prof. Asher A. Friesem

**Thesis:**  
Phase transitions with coupled lasers array



ד"ר אסף מירון  
Dr. Asaf Miron

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' דוד מוכמל  
פרופ' גרגורי פלקוביץ

Department of Physics of Complex Systems  
Advisors: Prof. David Mukamel  
Prof. Gregory Falkovich

**Thesis:**  
Anomalous diffusion and transport in finite systems and geometric constraints outside equilibrium



ד"ר נטע מרמור-קולט  
Dr. Neta Marmor-Kollet

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' אורן שולדינר

Department of Molecular Cell Biology  
Advisor: Prof. Oren Schuldiner

**Thesis:**  
Neuron-glia interactions during development of the mushroom body neuropil in Drosophila melanogaster



ד"ר יבגני מקגון  
Dr. Evgeniy Makagon

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת פרופ' איגור לובומירסקי

Department of Molecular Chemistry and Materials Science  
Advisor: Prof. Igor Lubomirsky

**Thesis:**  
Electro(chemo)mechanical properties of non-stoichiometric oxides



ד"ר גל מנלה  
Dr. Gal Manella

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' גד אשר

Department of Biomolecular Sciences  
Advisor: Prof. Gad Asher

**Thesis:**  
Principles of mammalian peripheral circadian clock resetting



ד"ר דפנה מידן  
Dr. Daphne Meidan

המחלקה למדעי כדור הארץ וכוכבי הלכת  
בהדרכת פרופ' ינון רודיך

Department of Earth and Planetary Sciences  
Advisor: Prof. Yinon Rudich

**Thesis:**  
Nocturnal secondary chemistry and its effect on atmospheric products in a biogenic volatile organic compound rich environment



ד"ר דן מיקולינסר  
Dr. Dan Mikulincer

המחלקה למתמטיקה  
בהדרכת פרופ' רונן אלדן

Department of Mathematics  
Advisor: Prof. Ronen Eldan

**Thesis:**  
Universality of high-dimensional systems



ד"ר רועי דוד מזור  
Dr. Roei David Mazor

המחלקה לאימונולוגיה  
בהדרכת פרופ' זיו שולמן  
פרופ' אירית שגיא

Department of Immunology  
Advisors: Prof. Ziv Shulman  
Prof. Irit Sagi

**Thesis:**  
Deciphering the nature of the antibody mediated immune response in the pathogenesis of ovarian carcinoma



ד"ר בהרט ויג'איראגאואן מורליקרישנאן  
Dr. Bharath Vijayaragava Muralikrishnan

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' אליאור (אורי) פלס

Department of Molecular Cell Biology  
Advisor: Prof. Elior (Ori) Peles

**Thesis:**  
Inhibitory signals controlling CNS myelination



ד"ר סוברדיפ מיסרה  
Dr. Subhradeep Misra

המחלקה לפיסיקה של חומר מעובה  
בהדרכת פרופ' ישראל ברייטס

Department of Condensed Matter Physics  
Advisor: Prof. Israel Bar-Joseph

**Thesis:**  
Optical spectroscopy of an interacting exciton condensate in coupled quantum wells



ד"ר סתיו מילר  
Dr. Stav Miller

המחלקה לאימונולוגיה  
בהדרכת פרופ' ניר פרידמן  
ד"ר ירון עמנואל ענתבי

Department of Immunology  
Advisors: Prof. Nir Friedman  
Dr. Yaron Antebi

**Thesis:**  
Single clone analysis of Th17 and Treg cell differentiation reveals independent and temporally separated dynamics for the RORyt and Foxp3 transcription factors



ד"ר בעז אברהם ניגן  
Dr. Boaz Avraham Negin

המחלקה למדעי הצמח והסביבה  
בהדרכת פרופ' אסף אהרוני

Department of Plant and Environmental  
Sciences  
Advisor: Prof. Asaph Aharoni

**Thesis:**  
The contribution of epicuticular wax to  
functional fitness in tree tobacco



ד"ר יעל נוריק  
Dr. Yael Nurick

המחלקה להוראת המדעים  
בהדרכת פרופ' אברהם הרכבי  
ד"ר רוני קרסנטי

Department of Science Teaching  
Advisors: Prof. Abraham Arcavi  
Dr. Ronnie Karsenty

**Thesis:**  
Identification and characterization of  
mathematics teachers' reflection on the  
teaching practice that takes place in  
different settings



ד"ר גל חיים נוטה  
Dr. Gal Chaim Nuta

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' עדי קמחי

Department of Molecular Genetics  
Advisor: Prof. Adi Kimchi

**Thesis:**  
Autophagy as a cell survival and cell  
death process: Insights into molecular  
mechanisms in health and disease



ד"ר יצחק סופר  
Dr. Yizhak Sofer

המחלקה למדעי המוח  
בהדרכת פרופ' טלי קמחי

Department of Brain Sciences  
Advisor: Prof. Tali Kimchi

**Thesis:**  
OT+ PVN neurons regulate aggression  
and dominance hierarchy in wild-derived  
female mice



ד"ר ליאן נרונסקי חזיזה  
Dr. Lian Narunsky Haziza

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' רביד שטראוסמן  
פרופ' יצחק פלפל

Department of Molecular Cell Biology  
Advisors: Prof. Ravid Straussman  
Prof. Yitzhak Pilpel

**Thesis:**  
Pan-cancer characterization of the tumor  
mycobiome and its clinical effects



ד"ר מיכלאנג'לו נעים  
Dr. Michelangelo Naim

המחלקה למדעי המוח  
בהדרכת פרופ' מיכאל צודיקס

Department of Brain Sciences  
Advisor: Prof. Michail Tsodyks

**Thesis:**  
Episodic memory from first principles



ד"ר אנה משצ'ריאקוב  
Dr. Anna Meshcheriakova

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' איתן ראובני

Department of Biomolecular Sciences  
Advisor: Prof. Eitan Reuveny

**Thesis:**  
Elucidation of SARAF role in the  
multifactorial regulation of store-operated  
calcium entry



ד"ר מיכל מרק  
Dr. Michal Mark

המחלקה לאימונולוגיה  
בהדרכת פרופ' ניר פרידמן  
ד"ר אסף מדי

Department of Immunology  
Advisors: Prof. Nir Friedman  
Dr. Asaf Madi

**Thesis:**  
Stereotypical organization of organ and  
subset-specific T-cell receptors that  
changes with age and LCMV infection



ד"ר חגי מרמור-קולט  
Dr. Hagai Marmor-Kollet

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' ערן הורנשטיין

Department of Molecular Genetics  
Advisor: Prof. Eran Hornstein

**Thesis:**  
Spatio-temporal proteomic analysis of  
stress granules



ד"ר עדי נגלר  
Dr. Adi Nagler

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' ירדנה סמואלס

Department of Molecular Cell Biology  
Advisor: Prof. Yarden Samuels

**Thesis:**  
Identification of immunotherapy and  
resistance targets in melanoma



ד"ר שיר נבו (כץ)  
Dr. Shir Nevo (Katz)

המחלקה לאימונולוגיה  
בהדרכת פרופ' יעקב אברמסון

Department of Immunology  
Advisor: Prof. Jakub Abramson

**Thesis:**  
Thymic tuft cells - molecular and  
functional characterization



ד"ר אבהי קומר נאיאק  
Dr. Abhay Kumar Nayak

המחלקה לפיסיקה של חומר מעובה  
בהדרכת פרופ' חיים בידנקופף

Department of Condensed Matter Physics  
Advisor: Prof. Haim Beidenkopf

**Thesis:**  
Spectroscopic mapping of one-  
dimensional edge modes and co-existing  
topological surface states



ד"ר ג'ורג'יה פרוקופיו  
Dr. Georgia Prokopiou

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת פרופ' ליאור קרוניק

Department of Molecular Chemistry and  
Materials Science  
Advisor: Prof. Leeor Kronik

**Thesis:**  
Advancing the optimally-tuned range-  
separated hybrid approach



ד"ר פררנה פליואל  
Dr. Prerna Paliwal

המחלקה לפיסיקה כימית וביולוגית  
בהדרכת פרופ' אדוארדס נרייביצ'יוס

Department of Chemical and Biological  
Physics  
Advisor: Prof. Ed Narevicius

**Thesis:**  
Quantum effects in cold collisions



ד"ר יעל פלדמן-מגור  
Dr. Yael Feldman-Maggor

המחלקה להוראת המדעים  
בהדרכת פרופ' רון בלונדר  
פרופ' ענבל טובי ערד

Department of Science Teaching  
Advisors: Prof. Ron Blonder  
Prof. Inbal Tuvi-Arad

**Thesis:**  
Organizing learning and teaching in online  
information-rich environment: Higher  
education chemistry courses for teachers  
and students



ד"ר רותם צברי  
Dr. Rotem Tsabary

המחלקה למדעי המחשב ומתמטיקה שימושית  
בהדרכת פרופ' צביקה ברקרקסי

Department of Computer Science and  
Applied Mathematics  
Advisor: Prof. Zvika Brakerski

**Thesis:**  
Constrained access in cryptographic  
systems



ד"ר קסבה פנדרה צ'רוקורי  
Dr. Kesava Phaneendra Cherukuri

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' דן תופיק

Department of Biomolecular Sciences  
Advisor: Prof. Dan S. Tawfik

**Thesis:**  
Phosphotriesterase based chemical-  
genetic tools for controlled release of  
chemical reporters



ד"ר מיכל צ'אפלבוים  
Dr. Michal Chappleboim

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' נעמה ברקאי

Department of Molecular Genetics  
Advisor: Prof. Naama Barkai

**Thesis:**  
Towards understanding the DNA  
sequence: From DNA binding to gene  
expression noise



ד"ר ויאצ'סלב סמרצב  
Dr. Viacheslav Smartsev

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' ויקטור ארמנד מלכא

Department of Physics of Complex  
Systems  
Advisor: Prof. Victor Armand Malka

**Thesis:**  
Boosting electron beam energy in laser-  
plasma accelerators with plasma channel  
guiding



ד"ר צח פלדמן  
Dr. Tzah Feldman

המחלקה לאימונולוגיה  
בהדרכת ד"ר לירן שלוש

Department of Immunology  
Advisor: Dr. Liran Shlush

**Thesis:**  
The characterization of genetic and  
epigenetic aspects in age-related clonal  
hematopoiesis



ד"ר ניצן סמרה  
Dr. Nitzan Samra

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' מייק פיינוילבר

Department of Biomolecular Sciences  
Advisor: Prof. Mike Fainzilber

**Thesis:**  
The role of local translation of mTOR in  
axonal growth



ד"ר אינאס עיסא  
Dr. Enas Easa

המחלקה להוראת המדעים  
בהדרכת פרופ' רון בלונדר

Department of Science Teaching  
Advisor: Prof. Ron Blonder

**Thesis:**  
Pedagogy of differentiated instruction  
in the chemistry classroom: Impact of  
customized pedagogical kits (CPKs) on  
misconceptions, achievements, self-  
efficacy, and attitudes of high students  
and teachers



ד"ר רן סלומון  
Dr. Ran Salomon

המחלקה לאימונולוגיה  
בהדרכת ד"ר רוני דהן

Department of Immunology  
Advisor: Dr. Rony Dahan

**Thesis:**  
Therapeutic window of CD40-targeted  
immunotherapy



ד"ר אלה סנדרס  
Dr. Ella Sanders

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת פרופ' ארנסטו יוסלביץ

Department of Molecular Chemistry and  
Materials Science  
Advisor: Prof. Ernesto Joselevich

**Thesis:**  
Structural and optoelectronic properties  
of surface-guided halide perovskite  
nanowires





ד"ר עידו רוג  
Dr. Ido Rog

המחלקה למדעי הצמח והסביבה  
בהדרכת ד"ר תמיר קליין

Department of Plant and Environmental  
Sciences  
Advisor: Dr. Tamir Klein

**Thesis:**  
Ecophysiology of carbon dynamics in and  
between forest trees



ד"ר עופר רגב  
Dr. Ofer Regev

המחלקה לאימונולוגיה  
בהדרכת פרופ' רונן אלון

Department of Immunology  
Advisor: Prof. Ronen Alon

**Thesis:**  
Involvement of breast cancer ICAM-1 in  
tumor immunity at primary and metastatic  
site



ד"ר אסף קסן  
Dr. Assaf Kacen

המחלקה לאימונולוגיה מערכתית  
בהדרכת ד"ר יפעת מרביל

Department of Systems Immunology  
Advisor: Dr. Yifat Merbl

**Thesis:**  
Uncovering the modified  
immunopeptidome reveals insights into  
principles of PTM-driven antigenicity



ד"ר אורי רוסמן  
Dr. Uri Rossman

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' דן אורון

Department of Physics of Complex  
Systems  
Advisor: Prof. Dan Oron

**Thesis:**  
Investigation and application of quantum  
correlations in microscopy



ד"ר חגי רוסמן  
Dr. Hagai Rossman

המחלקה למדעי המחשב ומתמטיקה שימושית  
בהדרכת פרופ' ערן סגל  
פרופ' אורי אלון

Department of Computer Science and  
Applied Mathematics  
Advisors: Prof. Eran Segal  
Prof. Uri Alon

**Thesis:**  
Clinical data analysis at scale and a data-  
driven pandemic response



ד"ר קרול ויניפרד רודריקס  
Dr. Carol Winnifred Rodricks

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת פרופ' דניאל וגנר

Department of Molecular Chemistry and  
Materials Science  
Advisor: Prof. Daniel Wagner

**Thesis:**  
Polymer beads as interfacial obstacles in  
fibre composites



ד"ר ארנו קורוויזיה  
Dr. Arnaud Courvoisier

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' ניר דודזון

Department of Physics of Complex  
Systems  
Advisor: Prof. Nir Davidson

**Thesis:**  
Optomechanics and momentum transfers  
in inhomogeneous ultra-cold gases



ד"ר ליבי קוסולאפוב  
Dr. Libby Kosolapov

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' מייקל ווקר

Department of Biomolecular Sciences  
Advisor: Prof. Michael Walker

**Thesis:**  
Transcriptional control mechanisms in  
pancreas development



ד"ר אפרודיטי ציצו-קמפלי  
Dr. Afroditi Tsitsou-Kampeli

המחלקה למדעי המוח  
בהדרכת פרופ' מיכל שוורץ

Department of Brain Sciences  
Advisor: Prof. Michal Schwartz

**Thesis:**  
The impact of metabolic processes at  
the brain's choroid plexus and of the  
gut microbiome on Alzheimer's disease  
manifestation



ד"ר יהונתן קסטן  
Dr. Yoni Kasten

המחלקה למדעי המחשב ומתמטיקה שימושית  
בהדרכת פרופ' רונן בצרי

Department of Computer Science and  
Applied Mathematics  
Advisor: Prof. Ronen Basri

**Thesis:**  
Algebraic characterization of relational  
camera pose measurements in multiple  
images



ד"ר ג'יון קים  
Dr. Jiyeon Kim

המחלקה למדעים ביומולקולריים  
בהדרכת פרופ' טוני פוטרמן

Department of Biomolecular Sciences  
Advisor: Prof. Tony Futerman

**Thesis:**  
How are CerS regulated? Identification of  
a novel C-terminus domain in CerS and  
identification of CerS interacting proteins



ד"ר מירה קורולסקי רוזנטל  
Dr. Mira Korulski-Rosenthal

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' מאיה שולדינר

Department of Molecular Genetics  
Advisor: Prof. Maya Schuldiner

**Thesis:**  
Metabolic adaptation of peroxisomes by  
altering their proteome through targeting  
priority and the interplay with lipid  
droplets



ד״ר סמדר שילה  
Dr. Smadar Shilo

המחלקה למדעי המחשב ומתמטיקה שימושית  
בהדרכת פרופ' ערן סגל

Department of Computer Science and Applied Mathematics  
Advisor: Prof. Eran Segal

**Thesis:**  
A data driven approach for the study of diabetes and obesity



ד״ר דאוד שיבאן  
Dr. Daoud Sheban

המחלקה לאימונולוגיה  
בהדרכת ד״ר יפעת מרבל  
פרופ' יעקב חנא

Department of Immunology  
Advisors: Dr. Yifat Merbl  
Prof. Jacob (Yaqub) Hanna

**Thesis:**  
Deciphering mechanisms of SUMO-dependent chromatin regulation in mammalian early development



ד״ר רפאל שטרן  
Dr. Rafael Stern

המחלקה למדעי כדור הארץ וכוכבי הלכת  
בהדרכת פרופ' דן יקיר

Department of Earth and Planetary Sciences  
Advisor: Prof. Dan Yakir

**Thesis:**  
Biogeochemical and biogeophysical effects of different land covers



ד״ר מרגריטה שפלנקו (קווטאניוק)  
Dr. Margarita Shepelenko (Kovtanyuk)

המחלקה לכימיה מולקולרית ומדע החומרים  
בהדרכת פרופ' ליאור קרוניק  
פרופ' לסלי לייזרוביץ'

Department of Molecular Chemistry and Materials Science  
Advisors: Prof. Leeor Kronik  
Prof. Leslie Leiserowitz

**Thesis:**  
Structure and properties of naturally occurring materials from first principles



ד״ר תום שני  
Dr. Tom Shani

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' יעקב חנא

Department of Molecular Genetics  
Advisor: Prof. Jacob (Yaqub) Hanna

**Thesis:**  
Defining molecular principles that distinguish the human naive and primed pluripotent states



ד״ר לירן שלאק  
Dr. Liran Szlak

המחלקה למדעי המחשב ומתמטיקה שימושית  
בהדרכת פרופ' אוהד שמיר  
פרופ' רוני פז

Department of Computer Science and Applied Mathematics  
Advisors: Prof. Ohad Shamir  
Prof. Rony Paz

**Thesis:**  
Learning with missing information in humans and machines



ד״ר אלכסנדר שאמוב  
Dr. Alexander Shamov

המחלקה למתמטיקה  
בהדרכת פרופ' דמיטרי גוריץ  
פרופ' יוסף ברנשטיין

Department of Mathematics  
Advisors: Prof. Dmitry Gourevitch  
Prof. Joseph Bernstein

**Thesis:**  
Topics in probability theory: Gaussian multiplicative chaos, determinantal processes, and fractal barriers



ד״ר סיון שטראוס  
Dr. Sivan Struass

המחלקה לגנטיקה מולקולרית  
בהדרכת פרופ' יצחק פלפל

Department of Molecular Genetics  
Advisor: Prof. Yitzhak Pilpel

**Thesis:**  
Exploration of evolutionary strategies and the effect of mate choice on evolution and on fitness inheritance in yeast



ד״ר דקל רענן  
Dr. Dekel Raanan

המחלקה לפיסיקה של מערכות מורכבות  
בהדרכת פרופ' דן אורון  
פרופ' ירון זילברברג

Department of Physics of Complex Systems  
Advisors: Prof. Dan Oron  
Prof. Yaron Silberberg

**Thesis:**  
Low frequency impulsive vibrational spectroscopy and microscopy



ד״ר גיל שורץ  
Dr. Gil Schwarts

המחלקה להוראת המדעים  
בהדרכת פרופ' אברהם הרכבי  
ד״ר רוני קרסנטי

Department of Science Teaching  
Advisors: Prof. Abraham Arcavi  
Dr. Ronnie Karsenty

**Thesis:**  
Professionalization processes of facilitators in mathematics teachers' professional development programs



ד״ר יואב רכבי  
Dr. Yoav Rechavi

המחלקה למדעי המוח  
בהדרכת פרופ' יניב זיו

Department of Brain Sciences  
Advisor: Prof. Yaniv Ziv

**Thesis:**  
Effects of physical exercise and adult neurogenesis on hippocampal neural codes



ד״ר נועה שדה  
Dr. Noa Sadeh

המחלקה למדעי המוח  
בהדרכת פרופ' יניב זיו

Department of Brain Sciences  
Advisor: Prof. Yaniv Ziv

**Thesis:**  
Hippocampal and entorhinal neuronal representations underlying long-term spatial memory





ד"ר איילת שראל  
Dr. Ayelet Sarel

המחלקה למדעי המוח  
בהדרכת פרופ' נחום אולנובסקי

Department of Brain Sciences  
Advisor: Prof. Nachum Ulanovsky

**Thesis:**  
Hippocampal spatial representation  
during dynamic natural navigation



ד"ר אדר שרון  
Dr. Adar Sharon

המחלקה לפיסיקה של חלקיקים ואסטרופיסיקה  
בהדרכת פרופ' זוהר קומרגודסקי  
פרופ' מיכה ברכוז

Department of Particle Physics and  
Astrophysics  
Advisors: Prof. Zohar Komargodski  
Prof. Micha Berkooz

**Thesis:**  
Exploring strongly-coupled three-  
dimensional quantum field theories



ד"ר דן שקד רנו  
Dr. Dan Shaked Renous

המחלקה לפיסיקה של חלקיקים ואסטרופיסיקה  
בהדרכת ד"ר שקמה ברסלר

Department of Particle Physics and  
Astrophysics  
Advisor: Dr. Shikma Bressler

**Thesis:**  
Investigation of RPWELL-based digital  
hadronic calorimeter



ד"ר אברהם שקד  
Dr. Avraham Shakked

המחלקה לביולוגיה מולקולרית של התא  
בהדרכת פרופ' אלדד צחור

Department of Molecular Cell Biology  
Advisor: Prof. Eldad Tzahor

**Thesis:**  
Negative feedback regulation drives  
Cardiomyocyte redifferentiation and  
functional improvement during ERBB2-  
mediated cardiac regeneration





# MSc Recipients

Daniel Alfandari  
Shir Amir  
Shahd Ashouokhi  
Shifra Avital  
Margarita Talia Babich  
Yifat Bar Or Snarski  
Peleg Bar-On  
Alon Barshap  
Dina Bartov  
Yotam Beit-Yannai  
Yuval Belfer  
Yoav Ben Dov  
Oriel Ben Shmuel  
Joseph Ben Zion  
Hadar Ben-Arosh  
Ofek Bengyat  
Inbal Beracha  
Ester Bnaya Lazarovski  
Matan Bocarsly  
Mor Breger Mikulincer  
Stephanie Brener  
Daniel Castro  
Guoyun Chen  
Valeriya Chugaeva  
Adi Cohen  
Niv Cohen  
Sapir Cohen  
Shahar Cohen  
David Columbus  
Amit Cucuy  
Tomer Danino Zohar  
Matan Danos  
Federico De Vito Halevy  
Arjun Dey  
Debarghya Dutta  
Nikolay Ebel  
Yam Eitan  
Noa Eizenshtadt

Miriam Elbaz  
Alice Eldar  
Jacob Elkahal  
Shiran Elyahu Zada  
Lior Faeyrman  
Tom Ferster  
Daniel Freidzon  
Philip Alexander Freund  
Margarita Galper  
Dotan Gazith  
Avi Gluck  
Guy Goldberg  
Uri Goldblatt  
Michal Goldenshtein  
Gal Goldman  
Samantha Augusta Goldwasser Silva  
Myriam Goor  
Jonathan Grozovski  
Aviya Habshush  
Anton Hanopolskyi  
Dror Harush  
Ravid Haruvi  
Daniel Hervitz  
Vladyslav Holiar  
Alon Inbar  
Ofer Israelov  
Elad Itzhaki  
Oryna Ivashtenko  
Stav Izrailov  
Orly Izsak  
Igor Kaczmarczyk  
Amit Kahana  
Nitzan Kahn  
Lior Kalman  
Arkady Kaplan  
Gili Karni  
Gilad Kishony  
Amir Kleiner

Dmitrii Kobylanskii  
David Zeev Koplovich  
David Koprivica  
Guy Kornowski  
Hodaya Koslowsky  
Danielle Krongauz  
Ganit Kupershmidt  
Yuval Kushmaro  
Mariia Labendik  
Bar Lampert  
Bar Lavi  
Benjamin Isaac Lerner  
Maya Levanon  
Aaron Rafael Liberman  
Alfredo Antonio Lopez Castillo  
Alon Mamistvalov  
Jovan Markov  
Shir Marom  
Edward Medina Guerra  
Gabriele Meilikhov  
Oz Yosef Mendelsohn  
Boaz Menuhin  
Dor Mezer  
Eliya Milshtein  
Ofir Milul  
Rotem Morag  
Shani Nachshon  
Haim Nakav  
Eyal Naor  
Itay Naor  
Nachum Nathan  
Valerya Nisnevich  
Alexey Norkin  
Noa Novogroder  
Sigalit Ofir  
Chen Oppenheim  
Lital Oscar  
Oded Ovdatt

Noa Oved  
Doreen Padan Ben Yashar  
Shira Passentin  
Ariel Perera  
Ella Pozner  
Tzur Raanan  
Or Ram  
Yoav Ravid  
Eran Reches  
Guy Reuveni  
Shlomo Ron  
Maor Rosenberg  
Noam Rozen  
Or Samimi Golan  
Sarit Samiya  
Somasundaram Sankaranarayanan  
Gal Sela  
Lior Shachar  
Yuval Shapir  
Yarden Sheffer  
Michal Shilo  
Adi Shindler  
Assaf Shonfeld  
Stav Shtiglitz  
Navot Silberstein  
Viktoryia Smaliak  
Ariel Smooha  
Ori Somech  
David Sriker  
Rachel Steinitz Eliyahu  
Sapir Suissa  
Yehonatan Tahan  
Olga Tapinova  
Amit Tauman  
Ariel Tennenhouse  
Sun Terletsky  
Nadav Timor  
Noam Tsumi

Daniel Weizman  
Dekel Yahav Har-shai  
Ben Yamin  
Noa Yeshaya  
Erez Yirmiya  
Lev Yung  
Erez Zimmerman  
Asaf Yosef Zlotnik



**סתיו איזראילוב**  
**Stav Izrailov**

המחלקה למדעי החיים  
בהדרכת פרופ' טוני פוטרמן

Department of Life Sciences  
Advisor: Prof. Tony Futerman

**Thesis:**  
Study of tryptophan residues in Ceramide Synthases



**נועה איזנשטדט**  
**Noa Eizenshtadt**

המחלקה למדעי הכימיה  
בהדרכת פרופ' דוד מרגוליס

Department of Chemical Sciences  
Advisor: Prof. David Margulies

**Thesis:**  
Developing oligonucleotide-based, self-assembled fluorescent probes for detecting cell surface proteins in living cells



**אורלי איז'ק**  
**Orly Izsak**

המחלקה למדעי החיים  
בהדרכת פרופ' רותם שורק

Department of Life Sciences  
Advisor: Prof. Rotem Sorek

**Thesis:**  
Finding viperin-like anti-phage proteins producing anti-viral molecules



**אליס אלדר**  
**Alice Eldar**

המחלקה למדעי החיים  
בהדרכת פרופ' יניב זיו

Department of Life Sciences  
Advisor: Prof. Yaniv Ziv

**Thesis:**  
Investigating the mechanisms underlying the stable coexistence of multiple maps for the same environment



**מרים אלבז**  
**Miriam Elbaz**

המחלקה למדעי החיים  
בהדרכת פרופ' עידו עמית

Department of Life Sciences  
Advisor: Prof. Ido Amit

**Thesis:**  
Spatial and temporal mapping of immune cell dynamics in breast cancer metastasis



**ים איתן**  
**Yam Eitan**

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' בועז בנימין קלרטג

Department of Mathematics and Computer Science  
Advisor: Prof. Boaz Binyamin Klartag

**Thesis:**  
The centered convex body whose marginals have the heaviest tails



**ליטל אוסקר**  
**Lital Oscar**

המחלקה למדעי הכימיה  
בהדרכת פרופ' ניר גוב

Department of Chemical Sciences  
Advisor: Prof. Nir Gov

**Thesis:**  
Fish decision making on the move



**ניקולאי אבל**  
**Nikolay Ebel**

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' אולף לאונהרדט

Department of Physical Sciences  
Advisor: Prof. Ulf Leonhardt

**Thesis:**  
Investigation of regularization schemes of the stress-energy tensor in quantum field theories in curved background



**שיפרה אביטל**  
**Shifra Avital**

המחלקה למדעי החיים  
בהדרכת ד"ר תמיר קליין

Department of Life Sciences  
Advisor: Dr. Tamir Klein

**Thesis:**  
Donors and acceptors of belowground carbon transfer in a tree community



**אורנה איבאשטנקו**  
**Oryna Ivashtenko**

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר ברק זכאי

Department of Physical Sciences  
Advisor: Dr. Barak Zackay

**Thesis:**  
Search for "blue" planets orbiting "yellow" stars



**חן אופנהיים**  
**Chen Oppenheim**

המחלקה למדעי הכימיה  
בהדרכת ד"ר מיכל לסקס

Department of Chemical Sciences  
Advisor: Dr. Michal Leskes

**Thesis:**  
Investigation of the ceramic – polymer interface in the composite solid electrolyte by Nuclear Magnetic Resonance Spectroscopy



**סיגלית אופיר**  
**Sigalit Ofir**

המחלקה להוראת המדעים  
בהדרכת פרופ' ענת ירדן

Department of Science Teaching  
Advisor: Prof. Anat Yarden

**Thesis:**  
Exploring the influence of using the Teaching for Transformative Experiences in Science (TTES) model in an online teaching unit on high school biology majors' conceptions of biological evolution



יובל בלפר  
Yuval Belfer

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' רונן בצרי

Department of Mathematics and  
Computer Science  
Advisor: Prof. Ronen Basri

**Thesis:**  
Spectral analysis of the neural tangent  
kernel for deep residual networks



יותם בית-ינאי  
Yotam Beit-Yannai

המחלקה למדעי החיים  
בהדרכת פרופ' נעם שטרן-גינוסר

Department of Life Sciences  
Advisor: Prof. Noam Stern-Ginossar

**Thesis:**  
Studying HCMV genes' role in viral  
propagation using a virus-encoded knock-  
out system



מתן בוקרסלי  
Matan Bocarsly

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' אלי זלדוב

Department of Physical Sciences  
Advisor: Prof. Eli Zeldov

**Thesis:**  
Imaging Chern mosaic and Berry-  
curvature magnetism in magic angle  
graphene



יוסף בן ציון  
Joseph Ben Zion

המחלקה למדעי החיים  
בהדרכת פרופ' יחיאל שי

Department of Life Sciences  
Advisor: Prof. Yechiel Shai

**Thesis:**  
AcrAB-TolC efflux pump and HlpA role in  
resistance against antimicrobial peptides



יואב בן דב  
Yoav Ben Dov

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מוני נאור

Department of Mathematics and  
Computer Science  
Advisor: Prof. Moni Naor

**Thesis:**  
Resistance to timing attacks revisited:  
Time oblivious sampling



הדר בן ארוש  
Hadar Ben-Arosh

המחלקה למדעי החיים  
בהדרכת ד"ר רועי אברהם

Department of Life Sciences  
Advisor: Dr. Roi Avraham

**Thesis:**  
Understanding succinate sensing and  
transport as regulators of Salmonella  
Typhimurium virulence



יעקב אלקהל  
Jacob Elkahal

המחלקה למדעי החיים  
בהדרכת פרופ' אלדד צחור  
ד"ר רחל סריג

Department of Life Sciences  
Advisors: Prof. Eldad Tzahor  
Dr. Rachel Sarig

**Thesis:**  
Deciphering Copaxone mechanism  
of action in promoting cardiac repair  
following myocardial infarction



דניאל אלפנדרי  
Daniel Alfandari

המחלקה למדעי החיים  
בהדרכת ד"ר נטע רגב-רוצקי

Department of Life Sciences  
Advisor: Dr. Neta Regev-Rudzki

**Thesis:**  
Studying the interaction of malaria-  
derived EVs with host immune system and  
characterization of the dynamics of EV  
cargo distribution



שירן אליהו זאדה  
Shiran Elyahu Zada

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מיכל אירני

Department of Mathematics and  
Computer Science  
Advisor: Prof. Michal Irani

**Thesis:**  
Pure noise to the rescue of insufficient  
data: Improving imbalanced classification  
by training on random noise images



מרגריטה טליה בבִּיץ'  
Margarita Talia Babich

המחלקה למדעי החיים  
בהדרכת פרופ' אלי ארמה

Department of Life Sciences  
Advisor: Prof. Eli Arama

**Thesis:**  
The role of different caspases during  
spermatid terminal differentiation in  
drosophila



שדה אשיוח'י  
Shahd Ashoukhi

המחלקה למדעי החיים  
בהדרכת פרופ' יעקב חנא

Department of Life Sciences  
Advisor: Prof. Jacob (Yaqub) Hanna

**Thesis:**  
Describing the FTO variant malformation  
syndrome using hPSCs derived cerebral  
organoids



שיר אמיר  
Shir Amir

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת ד"ר טלי דקל

Department of Mathematics and  
Computer Science  
Advisor: Dr. Tali Dekel

**Thesis:**  
On the effectiveness of ViT features as  
local semantic descriptors





סטפני ברנר  
Stephanie Brener

המחלקה למדעי החיים  
בהדרכת פרופ' נעם סובל

Department of Life Sciences  
Advisor: Prof. Noam Sobel

**Thesis:**  
Using an electronic nose to mimic olfaction in real-world settings



ענבל ברכה  
Inbal Beracha

המחלקה למדעי החיים  
בהדרכת ד"ר אסף טל

Department of Life Sciences  
Advisor: Dr. Assaf Tal

**Thesis:**  
Adaptive magnetic resonance



דינה ברטוב  
Dina Bartov

המחלקה להוראת המדעים  
בהדרכת פרופ' ענת ירדן

Department of Science Teaching  
Advisor: Prof. Anat Yarden

**Thesis:**  
Teaching Biology at a distance: Biology teachers' professional knowledge and the coping with Transactional Distance



אסתר בני"ה לזרובסקי  
Ester Bnaya Lazarovski

המחלקה למדעי החיים  
בהדרכת ד"ר לירן שלוש

Department of Life Sciences  
Advisor: Dr. Liran Shlush

**Thesis:**  
DNMT3A mediated DSB induced DNA Hypermethylation



אופק בנגיאת  
Ofek Bengyat

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' אבישי גל-ים

Department of Physical Sciences  
Advisor: Prof. Avishay Gal-Yam

**Thesis:**  
Characterization of supernovae based on spectral-temporal energy distribution



אוריאל בן שמואל  
Oriel Ben Shmuel

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' עדי שמיר

Department of Mathematics and Computer Science  
Advisor: Prof. Adi Shamir

**Thesis:**  
Early transferability of adversarial examples in deep neural networks



גיא גולדברג  
Guy Goldberg

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' גיא רוטבלום

Department of Mathematics and Computer Science  
Advisor: Prof. Guy Rothblum

**Thesis:**  
Sample-based proofs of proximity



אורי גולדבלט  
Uri Goldblatt

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר סרג' רוזנבלום

Department of Physical Sciences  
Advisor: Dr. Serge Rosenblum

**Thesis:**  
Error mitigation of superconducting quantum circuits through real-time feedback



אלון ברשפ  
Alon Barshap

המחלקה למדעי החיים  
בהדרכת פרופ' ישראל פליישמן

Department of Life Sciences  
Advisor: Prof. Sarel Fleishman

**Thesis:**  
Exploration of specificity determinants in protein transmembrane domains through computational design



מור ברגר מיקולינסר  
Mor Breger Mikulincer

המחלקה למדעי החיים  
בהדרכת ד"ר איבו שפיגל

Department of Life Sciences  
Advisor: Dr. Ivo Spiegel

**Thesis:**  
Deciphering the gene programs through which Npas4 controls specific sets of synapses in the visual cortex VIP neurons



פלג בר-און  
Peleg Bar-On

המחלקה למדעי החיים  
בהדרכת ד"ר תמיר קליין

Department of Life Sciences  
Advisor: Dr. Tamir Klein

**Thesis:**  
A montane species treeline is defined by both temperature and drought effects on growth season length



יפעת בר אור סנרסקי  
Yifat Bar Or Snarski

המחלקה למדעי החיים  
בהדרכת פרופ' רונן אלון

Department of Life Sciences  
Advisor: Prof. Ronen Alon

**Thesis:**  
The role of ICAM-1 on thymic epithelial cells in the negative selection of auto reactive thymocytes



**יונתן גרוזובסקי**  
**Jonathan Grozovski**

המחלקה למדעי החיים  
בהדרכת פרופ' יצחק פלפל

Department of Life Sciences  
Advisor: Prof. Yitzhak Pilpel

**Thesis:**  
In-silico investigation of translation errors, SARS-CoV-2 mutations; and their immunization potential



**אנטון גנופולסקי**  
**Anton Hanopolskyi**

המחלקה למדעי הכימיה  
בהדרכת ד"ר סרגיי סמנוב

Department of Chemical Sciences  
Advisor: Dr. Sergey Semenov

**Thesis:**  
Active coacervation induced by an autocatalytic network



**מרגריטה גלפר**  
**Margarita Galper**

המחלקה למדעי הכימיה  
בהדרכת פרופ' בוריס ריבצ'ינסקי

Department of Chemical Sciences  
Advisor: Prof. Boris Rybtchinski

**Thesis:**  
Flexible electrodes based on carbon nanotubes



**מיכל גולדנשטיין**  
**Michal Goldenshtein**

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' רועי עוזרי

Department of Physical Sciences  
Advisor: Prof. Roee Ozeri

**Thesis:**  
Generating quantum gates on trapped ions with a Raman laser



**גל גולדמן**  
**Gal Goldman**

המחלקה למדעי החיים  
בהדרכת ד"ר מיטל אורן  
פרופ' אלעד שניידמן

Department of Life Sciences  
Advisor: Dr. Meital Oren-Suissa  
Prof. Elad Schneidman

**Thesis:**  
Sex-specific network topology of the nociceptive circuit shapes dimorphic behavior in *C. elegans*



**סמנתה אגוסטה גולדווסר סילבה**  
**Samantha Augusta Goldwasser Silva**

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' אבישי גל-ים

Department of Physical Sciences  
Advisor: Prof. Avishay Gal-Yam

**Thesis:**  
An improved method for spectroscopic classification of supernovae



**ארג'ון די**  
**Arjun Dey**

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר דוד מרוס

Department of Physical Sciences  
Advisor: Dr. David Mross

**Thesis:**  
Entanglement spectroscopy of anomalous surface states



**דברגיה דוטה**  
**Debarghya Dutta**

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' שחל אילני

Department of Physical Sciences  
Advisor: Prof. Shahal Ilani

**Thesis:**  
Collimation from PN junctions and ballistic magnetotransport in graphene



**פדריקו דה ויטו הלוי**  
**Federico De Vito Halevy**

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר שקמה ברסלר  
פרופ' יוסף ניר

Department of Physical Sciences  
Advisor: Dr. Shikma Bressler  
Prof. Yosef Nir

**Thesis:**  
In search for new resonances and lepton flavor violation at the LHC



**אברהם גלוק**  
**Avi Gluck**

המחלקה למדעי החיים  
בהדרכת פרופ' נעם שטרן-גינוסר

Department of Life Sciences  
Advisor: Prof. Noam Stern-Ginossar

**Thesis:**  
SARS-CoV-2, through NSP1, employs a multipronged strategy to impede host protein synthesis



**דותן גזית**  
**Dotan Gazith**

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר ברק זכאי

Department of Physical Sciences  
Advisor: Dr. Barak Zackay

**Thesis:**  
Precision speckle pattern reconstruction for high contrast imaging



**מרים גור**  
**Myriam Goor**

המחלקה להוראת המדעים  
בהדרכת ד"ר אלון פינטו  
ד"ר רוני קרסנטי

Department of Science Teaching  
Advisor: Dr. Alon Pinto  
Dr. Ronnie Karsenty

**Thesis:**  
Cross-community dialogue in mathematics education: Exploring the boundary between mathematicians and experienced mathematics teachers



רביד ג'ורג'ט חרובי  
Ravid Haruvi

המחלקה למדעי החיים  
בהדרכת ד"ר טקאשי קאוואשימה

Department of Life Sciences  
Advisor: Dr. Takashi Kawashima

**Thesis:**  
Understanding the circuit and function of the serotonergic system in learning processes



אביה חבשוש מנחם  
Aviya Habshush

המחלקה למדעי החיים  
בהדרכת ד"ר משה ביטון

Department of Life Sciences  
Advisor: Dr. Moshe Biton

**Thesis:**  
Deciphering the role of Toll-like receptor 2 on intestinal stem cells in health and disease



אסף יוסף זלוטניק  
Asaf Yosef Zlotnik

המחלקה למדעי החיים  
בהדרכת פרופ' אסף אהרוני

Department of Life Sciences  
Advisor: Prof. Asaph Aharoni

**Thesis:**  
Biosynthesis and function of steroidal glycoalkaloids in the tomato root and its exudates



ולדיסלב הוליאר  
Vladislav Holiar

המחלקה למדעי החיים  
בהדרכת ד"ר משה ביטון

Department of Life Sciences  
Advisor: Dr. Moshe Biton

**Thesis:**  
Class II presentation at the mucosal surface of the gut



תומר דנינו זהר  
Tomer Danino Zohar

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' עופר פירסטנברג

Department of Physical Sciences  
Advisor: Prof. Ofer Firstenberg

**Thesis:**  
Attractive photon interactions and bound states mediated by an ensemble of cold Rydberg atoms



מתן דנוס  
Matan Danos

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' רוברט קראוטגמר  
ד"ר שאופנג ג'יאנג

Department of Mathematics and Computer Science  
Advisor: Prof. Robert Krauthgamer  
Dr. Shaofeng Jiang

**Thesis:**  
Coresets for clustering by uniform sampling and generalized rank aggregation



יהונתן טחן  
Yehonatan Tahan

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' אוריאל פייגה

Department of Mathematics and Computer Science  
Advisor: Prof. Uriel Feige

**Thesis:**  
Item allocation to altruistic agents



עמית טאומן  
Amit Tauman

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' ערן סגל

Department of Mathematics and Computer Science  
Advisor: Prof. Eran Segal

**Thesis:**  
finding causal relationships in biological systems



דרור חרוש  
Dror Harush

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' חיים בידנקופף

Department of Physical Sciences  
Advisor: Prof. Haim Beidenkopf

**Thesis:**  
Methodology for probing magneto-susceptibility on the atomic scale



נבות זילברשטיין  
Navot Silberstein

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' מיכה ברקוז  
פרופ' עופר אהרוני

Department of Physical Sciences  
Advisor: Prof. Micha Berkooz  
Prof. Ofer Aharony

**Thesis:**  
SYK model of non-trivial theories and in the double scaling limit



דניאל ויצמן  
Daniel Weizman

המחלקה למדעי החיים  
בהדרכת ד"ר משה ביטון

Department of Life Sciences  
Advisor: Dr. Moshe Biton

**Thesis:**  
Deciphering the role of major histocompatibility complex (MHC) class II governing hematopoiesis lineage fate



דניאל הרביץ  
Daniel Hervitz

המחלקה למדעי הכימיה  
בהדרכת ד"ר אוליאנה שימנוביץ

Department of Chemical Sciences  
Advisor: Dr. Ulyana Shimanovich

**Thesis:**  
Templating silk self-assembly with mtal nanoparticles





ארז ירמיה  
Erez Yirmiya

המחלקה למדעי החיים  
בהדרכת פרופ' רותם שורק

Department of Life Sciences  
Advisor: Prof. Rotem Sorek

**Thesis:**  
Discovery of proteins enabling phages to overcome the bacterial immune system



דוד אלעד יצחקי  
Elad Itzhaki

המחלקה למדעי החיים  
בהדרכת פרופ' רבקה דיקשטיין

Department of Life Sciences  
Advisor: Prof. Rivka Dikstein

**Thesis:**  
Two modes of SARS-CoV-2 mRNA translation regulation by Rps3 mRNA binding residues



בן ימין  
Ben Yamin

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' רועי עוזרי

Department of Physical Sciences  
Advisor: Prof. Roei Ozeri

**Thesis:**  
Advanced tools for coherent control in trapped ion system



יאנה סאן טרלצקי  
Sun Terletsky

המחלקה למדעי החיים  
בהדרכת ד"ר מיכל רמות

Department of Life Sciences  
Advisor: Dr. Michal Ramot

**Thesis:**  
Functional stability of resting-state fMRI within individuals



אולגה טפינובה  
Olga Tapinova

המחלקה למדעי הכימיה  
בהדרכת פרופ' ניר גוב

Department of Chemical Sciences  
Advisor: Prof. Nir Gov

**Thesis:**  
Spin model with global inhibition for decision making



אריאל טננהאוס  
Ariel Tennenhouse

המחלקה למדעי הכימיה  
בהדרכת פרופ' ישראל פליישמן

Department of Chemical Sciences  
Advisor: Prof. Sarel Fleishman

**Thesis:**  
Automated energy-based antibody humanization



ניצן כהן  
Nitzan Kahn

המחלקה למדעי הכימיה  
בהדרכת פרופ' אדוארדס נרייביצ'יוס

Department of Chemical Sciences  
Advisor: Prof. Ed Narevicius

**Thesis:**  
Towards a molecular quantum degenerate gas



ניב כהן  
Niv Cohen

המחלקה למדעי החיים  
בהדרכת ד"ר אפרת שמע-יעקבי

Department of Life Sciences  
Advisor: Dr. Efrat Shema

**Thesis:**  
Deciphering the epigenetic code of IDH-mutant-gliomas



נועה ישעיה  
Noa Yeshaya

המחלקה למדעי הכימיה  
בהדרכת פרופ' דבורה פאס

Department of Chemical Sciences  
Advisor: Prof. Deborah Fass

**Thesis:**  
Structural and functional study of FCGBP, a major constituent of intestinal mucus



עופר יזרעאילוב  
Ofer Israelov

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' שמעון אולמן

Department of Mathematics and Computer Science  
Advisor: Prof. Shimon Ullman

**Thesis:**  
Neural network schemes of recurrent inference and meta learning



לב יונג  
Lev Yung

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' עופר אהרוני

Department of Physical Sciences  
Advisor: Prof. Ofer Aharony

**Thesis:**  
Asymptotic spectrum of 2D adjoint QCD in the large N limit



דקל יהב הר-שי  
Dekel Yahav Har-shai

המחלקה למדעי החיים  
בהדרכת ד"ר ירון עמנואל ענתבי

Department of Life Sciences  
Advisor: Dr. Yaron Antebi

**Thesis:**  
Characterization of the transcription factors SMAD1 SMAD5 and SMAD8 in the Bone Morphogenetic Protein (BMP) signaling pathway



אהרון רפאל ליברמן  
Aaron Rafael Liberman

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' ויקטור ארמנד מלכא

Department of Physical Sciences  
Advisor: Prof. Victor Armand Malka

**Thesis:**  
Measurement and control of spatio-temporal couplings in ultra-short laser pulses



אלפרדו אנטוניו לופז קסטיו  
Alfredo Antonio Lopez Castillo

המחלקה למדעי החיים  
בהדרכת פרופ' ניר פרידמן  
ד"ר אסף מדי

Department of Life Sciences  
Advisor: Prof. Nir Friedman  
Dr. Asaf Madi

**Thesis:**  
Development of the immune system in preterm infants - an integrative analysis of RNA and T cell receptor sequencing using single cell technologies



מאיה לבנון  
Maya Levanon

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' רועי חיים בר זיו

Department of Physical Sciences  
Advisor: Prof. Roy Bar-Ziv

**Thesis:**  
Recombination-based DNA editing in an artificial cell



אדוארד מדינה גווררה  
Edward Medina Guerra

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' יובל גפן  
פרופ' איגור ג'ורני

Department of Physical Sciences  
Advisor: Prof. Yuval Gefen  
Prof. Igor Gornyi

**Thesis:**  
Robustness of a quantum steering protocol to errors



בנימין יצחק לרנר  
Benjamin Isaac Lerner

המחלקה למדעי הכימיה  
בהדרכת ד"ר הגן הופמן

Department of Chemical Sciences  
Advisor: Dr. Hagen Hofmann

**Thesis:**  
Investigation of the role of intrinsically disordered regions in the DNA binding mechanism of Msn2



בר למפרט  
Bar Lampert

המחלקה למדעי החיים  
בהדרכת פרופ' עידית שחר

Department of Life Sciences  
Advisor: Prof. Idit Shachar

**Thesis:**  
Role of CD84 in viral infections



שחר כהן  
Shahar Cohen

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מוני נאור

Department of Mathematics and Computer Science  
Advisor: Prof. Moni Naor

**Thesis:**  
Low communication complexity protocols, collision resistant hash functions and secret key-agreement protocols



עדי כהן  
Adi Cohen

המחלקה למדעי החיים  
בהדרכת פרופ' אירית שגיא

Department of Life Sciences  
Advisor: Prof. Irit Sagi

**Thesis:**  
Engineering and characterization of matrix metalloproteinases-scaffolds with enhanced selectivity to specific extracellular matrix components



ספיר כהן  
Sapir Cohen

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' עדי שטרן  
פרופ' רועי עוזרי

Department of Physical Sciences  
Advisor: Prof. Ady Stern  
Prof. Roee Ozeri

**Thesis:**  
Quantum gates with trapped-ion qubits beyond the Lamb-Dicke approximation



מריה לבנדיק  
Mariia Labendik

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' מוטי הייבלום

Department of Physical Sciences  
Advisor: Prof. Moty Heiblum

**Thesis:**  
Shot noise detection of  $v=12/5$  and  $v=5/2$  quasiparticle charge



בר לביא  
Bar Lavi

המחלקה למדעי החיים  
בהדרכת פרופ' יעקב אברמסון

Department of Life Sciences  
Advisor: Prof. Jakub Abramson

**Thesis:**  
Understanding the breakdown of immune tolerance to food antigens



עמית כהנא  
Amit Kahana

המחלקה למדעי החיים  
בהדרכת פרופ' דורון לנצט  
פרופ' עודד אהרונסון

Department of Life Sciences  
Advisor: Prof. Doron Lancet  
Prof. Oded Aharonson

**Thesis:**  
Studies of micellar origin of life



שיר מרום  
Shir Marom

המחלקה למדעי הכימיה  
בהדרכת ד"ר ניר לונדון

Department of Chemical Sciences  
Advisor: Dr. Nir London

**Thesis:**  
High-throughput optimization of covalent inhibitors



דור מצר  
Dor Mezer

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' דמיטרי גורביץ

Department of Mathematics and Computer Science  
Advisor: Prof. Dmitry Gourevitch

**Thesis:**  
Multiplicity one theorems over positive characteristic



בעז מנוחין  
Boaz Menuhin

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מוני נאור

Department of Mathematics and Computer Science  
Advisor: Prof. Moni Naor

**Thesis:**  
Keep that card in mind: Card guessing with limited memory



איתי נאור  
Itay Naor

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' דמיטרי גורביץ

Department of Mathematics and Computer Science  
Advisor: Prof. Dmitry Gourevitch

**Thesis:**  
Multiplicity free representations of general linear groups



אייל נאור  
Eyal Naor

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מיכל אירני

Department of Mathematics and Computer Science  
Advisor: Prof. Michal Irani

**Thesis:**  
Combining internal and external constraints for unrolling shutter in videos



יובאן מרקוב  
Jovan Markov

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' כפיר בלום

Department of Physical Sciences  
Advisor: Prof. Kfir Blum

**Thesis:**  
Ultralight dark matter: Groundstate solutions in the presence of two fields



אופיר מילול  
Ofir Milul

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר סרג' רוזנבלום

Department of Physical Sciences  
Advisor: Dr. Serge Rosenblum

**Thesis:**  
Realizing a long-lived photonic qubit in a superconducting cavity



גבריאל מייליכוב  
Gabriele Meilikhov

המחלקה למדעי הכימיה  
בהדרכת פרופ' רוני נוימן

Department of Chemical Sciences  
Advisor: Prof. Ronny Neumann

**Thesis:**  
Synthesis and characterization of Manganese-containing polyoxometalates for electrochemical catalysis of CO<sub>2</sub> reduction



רתם מורג  
Rotem Morag

המחלקה למדעי החיים  
בהדרכת פרופ' נעמה ברקאי

Department of Life Sciences  
Advisor: Prof. Naama Barkai

**Thesis:**  
Intrinsically disordered regions in the TF GLN3: Tunable hub directing DNA binding in-vivo



עוז יוסף מנדלסון  
Oz Yosef Mendelsohn

המחלקה למדעי הכימיה  
בהדרכת פרופ' ליאור קרוניק

Department of Chemical Sciences  
Advisor: Prof. Leeor Kronik

**Thesis:**  
Data-driven force fields for large scale molecular dynamics simulations of halide perovskites



אלון ממיסטבלוב  
Alon Mamistvalov

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' יונינה אלדר

Department of Mathematics and Computer Science  
Advisor: Prof. Yonina Eldar

**Thesis:**  
Low rate ultrasound beamforming via advanced signal processing and deep learning



אליה מילשטיין  
Eliya Milshtein

המחלקה למדעי החיים  
בהדרכת פרופ' רון מילוא

Department of Life Sciences  
Advisor: Prof. Ron Milo

**Thesis:**  
A compact set of mutations achieves autotrophy in E. coli



אורי סומך  
Ori Somech

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר אפרים שחמון

Department of Physical Sciences  
Advisor: Dr. Ephraim Shahmoon

**Thesis:**  
Heisenberg-Langevin approach for  
superradiance and spin squeezing



ספיר סויסה  
Sapir Suissa

המחלקה למדעי החיים  
בהדרכת פרופ' אברהם ירון

Department of Life Sciences  
Advisor: Prof. Avraham Yaron

**Thesis:**  
Regulation of Kif2a activity by NGF-  
mediated phosphorylation



סומאסונדאראם סאנקאראנאראיאנאן  
Somasundaram Sankaranarayanan

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' גלעד פרז

Department of Physical Sciences  
Advisor: Prof. Gilad Perez

**Thesis:**  
Implications of quadratically-coupled  
ultralight dark matter



אור סמימי גולן  
Or Samimi Golan

המחלקה למדעי החיים  
בהדרכת פרופ' אלעד שניידמן

Department of Life Sciences  
Advisor: Prof. Elad Schneidman

**Thesis:**  
Mapping the architectural and functional  
organizations of the space of small neural  
circuits



שרית סמייה  
Sarit Samiya

המחלקה למדעי החיים  
בהדרכת פרופ' עדה יונת

Department of Life Sciences  
Advisor: Prof. Ada Yonath

**Thesis:**  
Structural studies of the pathogen  
Porphyromonas gingivalis ribosome



גל סלע  
Gal Sela

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר שקמה ברסלר

Department of Physical Sciences  
Advisor: Dr. Shikma Bressler

**Thesis:**  
A data-directed search for lepton-flavor  
violating decays of the Higgs in the  
hadronic tau decay channel



שני נחשון  
Shani Nachshon

המחלקה למדעי הכימיה  
בהדרכת פרופ' אבישי גל-ים  
ד"ר שגיא בן-עמי

Department of Chemical Sciences  
Advisor: Prof. Avishay Gal-Yam  
Dr. Sagi Ben-Ami

**Thesis:**  
Estimating and predicting seeing  
conditions; Site survey for the Weizmann  
Astrophysical Observatory in Israel



אלכסיי נורקין  
Alexey Norkin

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' אוריאל פייגה

Department of Mathematics and  
Computer Science  
Advisor: Prof. Uriel Feige

**Thesis:**  
Improved maximin fair allocation of  
indivisible items to three agents



נועה נובוגרודר  
Noa Novogroder

המחלקה למדעי החיים  
בהדרכת פרופ' ערן אלינג

Department of Life Sciences  
Advisor: Prof. Eran Elinav

**Thesis:**  
The role of the microbiome in primary  
sclerosing cholangitis (PSC)



נחום נתן  
Nachum Nathan

המחלקה למדעי החיים  
בהדרכת פרופ' זיו שולמן

Department of Life Sciences  
Advisor: Prof. Ziv Shulman

**Thesis:**  
The antibody immune response to SARS-  
CoV-2 and the cross-reactive potential of  
seasonal coronaviruses



חן חיים נקב  
Haim Nakav

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' רועי עוזרי

Department of Physical Sciences  
Advisor: Prof. Roee Ozeri

**Thesis:**  
The effect of fast phase noise on trapped-  
ion quantum gates



ולריה ניסנביץ  
Valerya Nisnevich

המחלקה למדעי החיים  
בהדרכת ד"ר רועי אברהם

Department of Life Sciences  
Advisor: Dr. Roi Avraham

**Thesis:**  
Characterizing universal and pathogen-  
specific human immune responses to  
bacterial infection





פיליפ אלכסנדר פרוינד  
Philip Alexander Freund

המחלקה למדעי החיים  
בהדרכת פרופ' מייק פיינזילבר

Department of Life Sciences  
Advisor: Prof. Mike Fainzilber

**Thesis:**  
Importins in CNS pathways: Roles and therapeutic implications



שירה פסנטיין  
Shira Passentin

המחלקה להוראת המדעים  
בהדרכת פרופ' דוד פורטס

Department of Science Teaching  
Advisor: Prof. David Fortus

**Thesis:**  
The relations between teaching practices and adolescents' motivation and self-efficacy for science in face-to-face and distance learning environments



ליאור פיירמן  
Lior Faeyrman

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' נירית דודוביץ

Department of Physical Sciences  
Advisor: Prof. Nirit Dudovich

**Thesis:**  
Measuring the generalized Berry phase in non-inversion symmetric materials using high harmonic generation



אריאל פררה  
Ariel Perera

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' בינגהיי יאן

Department of Physical Sciences  
Advisor: Prof. Binghai Yan

**Thesis:**  
Nonlinear anomalous Hall effect in 2D materials, Black Arsenic and Black Phosphorus



תום פרסטר  
Tom Ferster

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' אוריאל פייגה

Department of Mathematics and Computer Science  
Advisor: Prof. Uriel Feige

**Thesis:**  
A tight bound for the clique query problem in two rounds



דניאל פריידזון  
Daniel Freidzon

המחלקה למדעי הכימיה  
בהדרכת פרופ' איגור לובומירסקי

Department of Chemical Sciences  
Advisor: Prof. Igor Lubomirsky

**Thesis:**  
Electro-chemo-X effect in thin film-based devices



נועה עובד  
Noa Oved

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מוני נאור  
פרופ' רוברט קראוטגמר

Department of Mathematics and Computer Science  
Advisor: Prof. Moni Naor  
Prof. Robert Krauthgamer

**Thesis:**  
Bet-or-Pass: Adversarially robust bloom filters



עודד עבדת  
Oded Ovdad

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' ברק דיין

Department of Physical Sciences  
Advisor: Prof. Barak Dayan

**Thesis:**  
Intertial geometric gates for quantum computation with cold atoms



ויקטוריה סמליאק  
Viktoryia Smaliak

המחלקה למדעי הכימיה  
בהדרכת ד"ר סרגיי סמנוב

Department of Chemical Sciences  
Advisor: Dr. Sergey Semenov

**Thesis:**  
Design of negative feedback based on Thiol-Induced release of selenium



אלה פוזנר  
Ella Pozner

המחלקה למדעי החיים  
בהדרכת ד"ר תמיר קליין

Department of Life Sciences  
Advisor: Dr. Tamir Klein

**Thesis:**  
The role of drought in eliminating forest regeneration at the edge of its distribution



דורין פדן בן ישר  
Doreen Padan Ben Yashar

המחלקה למדעי החיים  
בהדרכת פרופ' טוני פוטרמן

Department of Life Sciences  
Advisor: Prof. Tony Futerman

**Thesis:**  
Pathological pathways in neuronal Gaucher Disease: The role of lipid droplets and beyond



אלון ענבר  
Alon Inbar

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' שחל אילני

Department of Physical Sciences  
Advisor: Prof. Shahal Ilani

**Thesis:**  
Electronic study of 2D van der Waals heterostructures with in-situ dynamical twist angle rotation



דוד קופריביצה  
David Koprivica

המחלקה למדעי הכימיה  
בהדרכת פרופ' לוסיו פרידמן

Department of Chemical Sciences  
Advisor: Prof. Lucio Frydman

**Thesis:**  
Novel referenceless methods for t1 denoising in nuclear magnetic resonance



דוד זאב קופלוביץ  
David Zeev Koplovich

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' עופר פירסטנברג

Department of Physical Sciences  
Advisor: Prof. Ofer Firstenberg

**Thesis:**  
Coherent interactions between a super-extended nanofiber-guided field and hot atoms



הודיה קוסלובסקי  
Hodaya Koslowsky

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' רונן בצרי

Department of Mathematics and Computer Science  
Advisor: Prof. Ronen Basri

**Thesis:**  
Structure from motion by deep neural networks



ארז צימרמן  
Erez Zimmerman

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' אבישי גל-ים

Department of Physical Sciences  
Advisor: Prof. Avishay Gal-Yam

**Thesis:**  
High velocity circumstellar wind around the type II supernova SN 2020pni



נועם צומעי  
Noam Tsumi

המחלקה למדעי הכימיה  
בהדרכת ד"ר יעל קירו

Department of Chemical Sciences  
Advisor: Dr. Yael Kiro

**Thesis:**  
Water-rock interaction time-scales during seawater circulation in coastal aquifers: Nitzanim as a case study



ולריה צ'וגאבה  
Valeriya Chugaeva

המחלקה למדעי החיים  
בהדרכת פרופ' יעקב חנא

Department of Life Sciences  
Advisor: Prof. Jacob (Yaqub) Hanna

**Thesis:**  
Establishment of in vitro culture conditions for deriving "super-primed" human pluripotent cells



גיא קורנובסקי  
Guy Kornowski

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' אוהד שמיר

Department of Mathematics and Computer Science  
Advisor: Prof. Ohad Shamir

**Thesis:**  
Oracle complexity in nonsmooth nonconvex optimization



עמית קוקוי  
Amit Cucuy

המחלקה למדעי החיים  
בהדרכת פרופ' אברהם לוי

Department of Life Sciences  
Advisor: Prof. Avraham Levy

**Thesis:**  
Factors affecting the efficiency and patterns of DNA double-strand break repair in plants



גנית קופרשמיט  
Ganit Kupershmidt

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מיכל אירני

Department of Mathematics and Computer Science  
Advisor: Prof. Michal Irani

**Thesis:**  
Video reconstruction from fMRI brain activity



דויד קולומבוס  
David Columbus

המחלקה למדעי הכימיה  
בהדרכת ד"ר מיכל לסקס

Department of Chemical Sciences  
Advisor: Dr. Michal Leskes

**Thesis:**  
Examination of interfacial lithium ion transport through computational and experimental techniques



דמיטרי קוביאלנסקי  
Dmitrii Kobylanski

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' עילם גרוס

Department of Physical Sciences  
Advisor: Prof. Eilam Gross

**Thesis:**  
Soft electron tagger



איגור קאצ'מרצ'יק  
Igor Kaczmarczyk

המחלקה למדעי החיים  
בהדרכת ד"ר מורן בן עמי

Department of Life Sciences  
Advisor: Dr. Moran Shalev-Benami

**Thesis:**  
Structural and functional studies of Bestrhodopsins – a novel protein family found in unicellular algae



גיא ראובני  
Guy Reuveni

המחלקה למדעי הכימיה  
בהדרכת ד"ר עומר יפה

Department of Chemical Sciences  
Advisor: Dr. Omer Yaffe

**Thesis:**  
Towards a better understanding of the relationship between electronic properties and structural dynamics of Halide Perovskites



גילי קרני  
Gili Karni

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' גיא רוטבלום

Department of Mathematics and Computer Science  
Advisor: Prof. Guy Rothblum

**Thesis:**  
On fairness and stability in two-sided matchings



דניאל קרונגאוז  
Danielle Krongauz

המחלקה למדעי הכימיה  
בהדרכת ד"ר סרגיי סמנוב

Department of Chemical Sciences  
Advisor: Dr. Sergey Semenov

**Thesis:**  
Towards electrochemically induced reductive elimination of Aryl fluorides from a Ni-Aryl complex



מאור רוזנברג  
Maor Rosenberg

המחלקה למדעי הכימיה  
בהדרכת פרופ' דן אורון

Department of Chemical Sciences  
Advisor: Prof. Dan Oron

**Thesis:**  
Nonlinear spectroscopy of nanomaterials



נועם רוזן  
Noam Rozen

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' ירון ליפמן

Department of Mathematics and Computer Science  
Advisor: Prof. Yaron Lipman

**Thesis:**  
Moser Flow: Divergence-based generative modeling on manifolds



יואב רביד  
Yoav Ravid

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' ניר גוב

Department of Physical Sciences  
Advisor: Prof. Nir Gov

**Thesis:**  
Studies of simulated membrane shapes driven by active curved proteins



אמיר קליינר  
Amir Kleiner

המחלקה למדעי הכימיה  
בהדרכת ד"ר סיון רפאלי-אברמסון

Department of Chemical Sciences  
Advisor: Dr. Sivan Refaely-Abramson

**Thesis:**  
Computational approach to excited state dynamics at the interfaces of layered transition-metal dichalcogenide heterostructures



גילעד קישוני  
Gilad Kishony

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' ארז ברג

Department of Physical Sciences  
Advisor: Prof. Erez Berg

**Thesis:**  
Converting electrons into emergent fermions at a superconductor-Kitaev spin liquid interface



יובל קושמרו  
Yuval Kushmaro

המחלקה למדעי הכימיה  
בהדרכת פרופ' דן תופיק  
פרופ' שראל פליישמן

Department of Chemical Sciences  
Advisor: Prof. Dan S. Tawfik  
Prof. Sarel Fleishman

**Thesis:**  
Organo-phosphate degradation by Phaeobacter inhibines



ארקדי קפלן  
Arkady Kaplan

המחלקה למדעי הכימיה  
בהדרכת פרופ' אלי זלדוב

Department of Chemical Sciences  
Advisor: Prof. Eli Zeldov

**Thesis:**  
Direct observation of vortices in an electron fluid



דניאל קסטרו  
Daniel Castro

המחלקה למדעי הפיסיקה  
בהדרכת ד"ר הילל אהרוני

Department of Physical Sciences  
Advisor: Dr. Hillel Aharoni

**Thesis:**  
Some analytic results in the two-dimensional inverse problem of deforming nematic elastomer surfaces



ליאור קלמן  
Lior Kalman

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' רוברט קראוטגמר

Department of Mathematics and Computer Science  
Advisor: Prof. Robert Krauthgamer

**Thesis:**  
Flow metrics on graphs





עדי שינדלר  
Adi Shindler

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' מוני נאור

Department of Mathematics and  
Computer Science  
Advisor: Prof. Moni Naor

**Thesis:**  
Disease spread modeling



מיכל שילה  
Michal Shilo

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' אורי אלון

Department of Mathematics and  
Computer Science  
Advisor: Prof. Uri Alon

**Thesis:**  
A mathematical model for ovulation  
number control based on biphasic effects  
of androgen

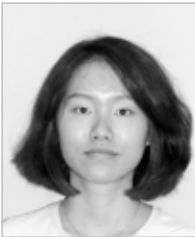


רחל שטייניץ אליהו  
Rachel Steinitz Eliyahu

המחלקה למדעי הכימיה  
בהדרכת ד"ר סיון רפאלי-אברמסון

Department of Chemical Sciences  
Advisor: Dr. Sivan Refaely-Abramson

**Thesis:**  
Excited state properties and charge  
transfer in BiVO4 with atomic vacancies: A  
first-principles study



גויון שן  
Guoyun Chen

המחלקה למדעי הכימיה  
בהדרכת ד"ר יפעת מרביל  
פרופ' ולרי קריזונובסקי

Department of Chemical Sciences  
Advisor: Dr. Yifat Merbl  
Prof. Valery Krizhanovsky

**Thesis:**  
Regulatory role of immunoproteasome in  
senescence



אריאל שמוחה  
Ariel Smoocha

המחלקה למדעי הכימיה  
בהדרכת ד"ר עמית פינקלר

Department of Chemical Sciences  
Advisor: Dr. Amit Finkler

**Thesis:**  
The influence of laser irradiation on spin  
labels in diamond magnetometry



אסף שינפלד  
Assaf Shonfeld

המחלקה למדעי הכימיה  
בהדרכת פרופ' ברק דיין

Department of Chemical Sciences  
Advisor: Prof. Barak Dayan

**Thesis:**  
Atomic fountain induced by magnetic  
fields for loading atoms into chip-based  
trap



אור רם  
Or Ram

המחלקה למדעי החיים  
בהדרכת פרופ' אהוד אחישר

Department of Life Sciences  
Advisor: Prof. Ehud Ahissar

**Thesis:**  
Visual hyperacuity with moving sensor  
and recurrent neuronal computations



ערן רכס  
Eran Reches

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' עופר פירסטנברג

Department of Physical Sciences  
Advisor: Prof. Ofer Firstenberg

**Thesis:**  
Storage of light on noble-gas spins and  
hot Rydberg atoms



שלמה רון  
Shlomo Ron

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' אלישע מוזס

Department of Physical Sciences  
Advisor: Prof. Elisha Moses

**Thesis:**  
Combined ultrasound and TMS  
neurostimulation in neuronal cultures



סתיו שטיגליץ  
Stav Shtiglitz

המחלקה למדעי החיים  
בהדרכת ד"ר איבו שפיגל

Department of Life Sciences  
Advisor: Dr. Ivo Spiegel

**Thesis:**  
Behavioural state-dependent regulation of  
binocular vision in mice



ליאור שחר  
Lior Shachar

המחלקה למדעי החיים  
בהדרכת פרופ' רון מילוא

Department of Life Sciences  
Advisor: Prof. Ron Milo

**Thesis:**  
Achieving CO2-fixation rates capable of  
supporting ambient-level autotrophy in  
E. coli



צור רענן  
Tzur Raanan

המחלקה למדעי הכימיה  
בהדרכת פרופ' שחל אילני

Department of Chemical Sciences  
Advisor: Prof. Shahal Ilani

**Thesis:**  
Visualization of electron optics in  
graphene heterostructures



דוד שריקר  
David Striker

המחלקה למדעי הכימיה  
בהדרכת פרופ' עמנואל לוי

Department of Chemical Sciences  
Advisor: Prof. Emmanuel Levy

**Thesis:**  
Predicting inter-molecular contacts from  
multi-sequence alignment using deep  
learning



ירדן שפר  
Yarden Sheffer

המחלקה למדעי הפיסיקה  
בהדרכת פרופ' עדי שטרן

Department of Physical Sciences  
Advisor: Prof. Ady Stern

**Thesis:**  
Moire patterns in weak topological  
insulator surfaces



יובל שפיר  
Yuval Shapir

המחלקה למדעי החיים  
בהדרכת ד"ר רוני דהן

Department of Life Sciences  
Advisor: Dr. Rony Dahan

**Thesis:**  
The role of the immune synapse during  
T-cell mediated anti-tumor immunity



נדב תימור  
Nadav Timor

המחלקה למתמטיקה ומדעי המחשב  
בהדרכת פרופ' אוהד שמיר

Department of Mathematics and  
Computer Science  
Advisor: Prof. Ohad Shamir

**Thesis:**  
Implicit regularization towards rank  
minimization in ReLU networks





# Recipients of MSc without thesis in Science Teaching

The Feinberg Graduate School’s master’s degree program without thesis in science teaching was launched in 2008, as a joint initiative between the Weizmann Institute and the Rothschild Caesarea Foundation. The mission of this program is to improve the quality of science and mathematics teaching in Israel, by encouraging excellence among educators and providing them with the skills needed for leadership, both in the classroom and beyond. The master’s program is intended for outstanding teachers of math and science who already hold at least a first degree in biology, chemistry, mathematics, or physics.

This is a two-year framework in which participants—with the support and encouragement of the schools in which they teach—are expected to devote two full days each week to their studies, in parallel with their continued work in the classroom. The curriculum includes the enrichment of participants’ basic scientific knowledge (discipline-specific and interdisciplinary topics) and familiarity with new developments in scientific research, the acquisition of innovative teaching skills and strategies, and participation in hands-on seminars in Weizmann Institute labs. The course curriculum, created specifically for this program, was designed to match the unique needs of science and math educators. Many of the classes are taught by members of the Weizmann Institute faculty.

- Banan Abu Katish
- Hila (Miriam) Dagan
- Ido Eliashar
- Hanan Gbarin
- Aleksandra Goltzman
- Irena Gross
- Miri Lev
- Ofir Levy
- Keren Morag
- Ronnen Nagal
- Hadas Nissim
- Saar Niv
- Yaara Nyman
- Ori Raviv
- David Shalom
- Tal Shpigel
- Sigal Tzuriel
- Itamar Yitzhak
- Shani Zamir





רון נגל  
Ronnen Nagal

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



קרן מורג  
Keren Morag

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



אופיר לוי  
Ofir Levy

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



חנאן ג'בארין  
Hanan Gbarin

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



עידו אלישר  
Ido Eliashar

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



בנאן אבו קטיש  
Banan Abu Katish

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



הדס נסים  
Hadas Nissim

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



יערה ניימן  
Yaara Nyman

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



סער ניב  
Saar Niv

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



הילה (מרים) דגן  
Hila (Miriam) Dagan

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



אירנה גרוס  
Irena Gross

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



אלכסנדרה גולצמן  
Aleksandra Goltzman

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



דוד שלום  
David Shalom

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



אורי רביב  
Ori Raviv

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



סיגל צוריאל  
Sigal Tzuriel

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



מירי לב  
Miri Lev

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



איתמר יצחק  
Itamar Yitzhak

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



שני זמיר  
Shani Zamir

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching



טל שפיגל  
Tal Shpigel

תואר שני ללא תזה בהוראת המדעים  
MSc without thesis in Science Teaching





# With gratitude to the supporters of the Feinberg Graduate School at the Weizmann Institute of Science

The Weizmann Institute of Science and the students and staff of the Feinberg Graduate School are grateful to the many friends throughout the world who have generously funded the graduate studies program.

The Weizmann Institute created five Research Schools affiliated with its five Faculties to expand and enhance its graduate education. These strategic investments provide students with greater opportunities for personal development and independent research, expanded contact with the international science community, and even greater exposure to world leaders in their fields of study.

The **Lorry I. Lokey Research School of Biochemical Science** was established by California entrepreneur and philanthropist Lorry Lokey in 2007. It provides students in biochemistry, at all levels, with the tools and opportunities needed to excel.

Two brothers, Maurizio from Geneva and Solo from Milan, and their families founded the **Solo Dwek and Maurizio Dwek Research School of Chemical Science** in 2008 to provide students in chemical sciences necessities such as laptops, software, journal subscriptions, and conference travel expenses.

Former Chair of the International Board of the Weizmann Institute, financier Mandy Moross of London established the **Moross Research School for Mathematics and Computer Science** in 2009. The Moross Research School sponsors special guest lectures, student-led workshops, and other enrichment activities for students of mathematics and computer sciences.

The **Ekard Research School of Biological Sciences** was also established in 2009, through an anonymous donation from a member of the Weizmann Institute

International Board. The Ekard School provides funding to attract guest lecturers and visiting scientists working in emerging areas of biology.

The **André Deloro Research School of Physical Science** was established in 2013 by the Adelis Foundation, founded by French entrepreneur and philanthropist André Deloro. The Deloro Research School works in tandem with the André Deloro Institute for Space and Optics Research at the Weizmann Institute to explore the nature of the universe from the smallest particles to the most distant galaxies.

**The David Lopatie Fellows** Up to four David Lopatie Fellows are selected each year by the Dean of the Feinberg Graduate School from among the new MSc students in the regular track. They are selected based on exceptional academic performance in their undergraduate studies. The prestigious award includes a personal travel allowance for scientific meetings, workshops, and more.

Scholarships are precious gifts—in essence, gifts of knowledge. They enable our students to concentrate on their studies, freeing them to devote their full energies to coursework and laboratory research. This steadfast encouragement has borne fruit among the many scientists throughout the world who began their careers at the Weizmann Institute. Today's graduates are tomorrow's scientific leaders.





