

## From the President

Dear Members of the Board of Governors, Friends, Faculty, Administrative Staff and Students,

The University of Haifa, the youngest among Israeli research universities, is changing its course. Established in 1972 on Mount Carmel, the University of Haifa serves about 18,000 students and employs more than 600 full-time faculty members and about 800 full-time administrative staff. As a thriving academic center, the University of Haifa comprises six faculties, 56 departments, eight schools and 69 research centers and institutes.

Over the 47 years of its existence, the University has developed into a world-class academic institution. We have gained an international reputation in a variety of fields, including public health, law, security studies, holocaust research, cancer research, neurosciences, bioinformatics, marine sciences and education. Moreover, we have always taken pride in our 18,000 student body, a diverse tapestry of ethnic and socio-economic backgrounds. In addition to being the most pluralistic institution of higher education in the country, the University of Haifa is also the largest research university in northern Israel. At a place where Jews, Arabs, Druze, Haredi and secular students, new immigrants, military and security personnel come together to study, teach and learn – great things can happen.

Despite these accomplishments, we have remained an institution focused on the Social Sciences and the Humanities - *we are not a comprehensive university*. We lack crucial fields such as Engineering and a broader approach to Life Sciences, among other areas.

Competition with other institutions in Israel and abroad, as well as life-changing shifts in technology have challenged our model. A university based on Social Sciences and Humanities cannot fully confront the complexity of higher education in the digital age.

The academic institution of the future entails expansion of Life Sciences, the introduction of Engineering, and a greater sensitivity to rapidly changing digital norms and protocols defining tomorrow's professional, social, and economic world.

In order to maintain our momentum, we have proposed a paradigm shift. We plan to expand our disciplinary profile, while moving to problem-based research involving teams from multiple academic disciplines. This shift will be accompanied by the ability to transcend barriers separating the Ivory Tower from the surrounding eco-system.

The time has come to define a new architecture that is unique to the University of Haifa. We need to move beyond our tendency to maintain conventional structures. We are different, and as such, we need a paradigm of our own.

However, without a change in our academic culture, we cannot capitalize on our exceptional nature. We need to induce significant change in order to create the necessary conditions—physical and virtual - for creating a university as a sum greater than its parts.

### **Where We Are Going: The Multiversity**

Traditionally, Israeli universities have been defined by their core location. Most universities are firmly associated with a specific geographic setting and a bricks-and-mortar campus in one physical locale. Here we argue that, contrary to this model, the University of Haifa must encourage and pursue an extended physical presence in multiple sites in order to fulfill its mission.

By immersing ourselves in the urban and regional surrounding, we are able to co-develop solutions to critical social, technical and cultural issues facing the society of the 21<sup>st</sup> century. By creating a multi-campus university, we leverage our cultural, socio-economic and physical setting in the quest for scientific advantage. If we wisely redistribute our physical presence, we will be able to excel in use-inspired research that fuses and transcends conventional intellectual disciplines while challenging the paradigm of the Ivory Tower.

Other universities have multiple campuses, too. By and large, these campuses have been mere outposts with relatively loose connections to the core of the university, its faculty, its student body and mission.

Here we propose a methodical network of campuses, a new way of structuring the university that we call the Multiversity. This may not be the only version of the future's university. It is, however, the most suitable model for our own aspirations, our faculty and our students.

***The “Multiversity” is a multi-campus and diverse network for discovery, economic expansion and social mobility. The Multiversity is designed to improve interaction between disciplines, broaden access to higher education, and foster collaboration between academia and diverse players. We define ourselves by who and what we include, and not by who and what we exclude.***

**Our core mission is to offer an inspirational setting for research and teaching. Our interactive network—both physical and virtual—for teaching, learning and discovery, will foster integrative and comprehensive scientific solutions to the critical issues facing humanity in the twenty-first century. To further the goal of adapting to a rapidly changing landscape, the University needs to transform its academic divisions and physical architecture, while upgrading its ability to connect among and between sites and disciplines.**

### **Where We Are Today**

The Multiversity has a planned physical presence in specific locations that facilitate change and discovery. Anchored in multiple "portal campuses" strategically situated near sites of cutting-edge economic activity, the Multiversity allows faculty and students to enrich their research and learning by offering them a strategic presence in key spaces of change without compromising connectivity to the rest of the university.

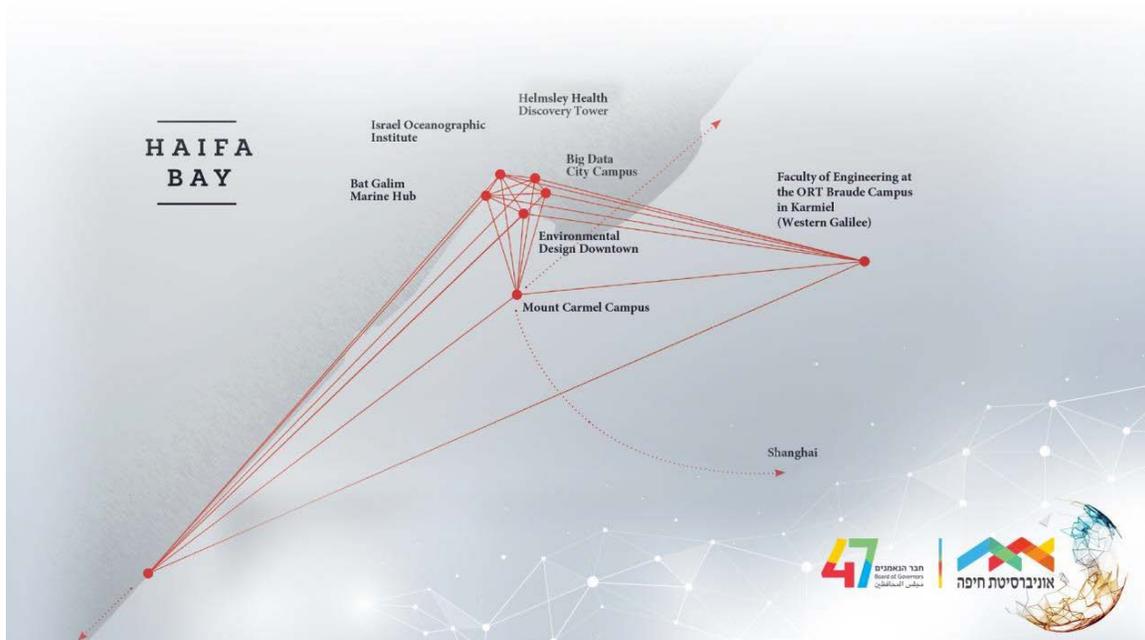
The architecture of this new version of the university is a network, featuring local specialization as well as connections among the portals. Ideally, students, and staff at the various sites interact freely between portals and the urban surroundings, whether physically or virtually.

The initial and fundamental organizational element of the Multiversity is the portal campus – a point of primary affiliation and activity centered around a multi-disciplinary activity. In a perfect world, the portal campuses are deeply related to each other, each using and building upon the assets of the other; and, each connected to the rest of the system.

The University of Haifa is “in and of” the City and the northern region, and should contribute, change and modify its immediate ecosystem.

The interconnected architecture of the Multiversity – through space and technology - is the key to its success. Research, teaching and learning at each node in the network is designed to be connected to and enhanced by the whole. Ideas, activity, conversation, and people flow freely.

So far, we have identified the locations for our portals and we have made decisions, that were processed and approved by all of the academic bodies of the university, about the distribution of fields of inquiries between the portals, as described in the following matrix:



The multiple portals expand fields of research, enable synergies between industry and academia and will encourage problem-based research. For these purposes, we are building new infrastructure at modest costs through partnerships (Municipality of Haifa, Rambam Health Care Campus), all of which will accelerate our transformation into a comprehensive university.

The diverse ecosystems provided by the Multiversity will lead to the implementation of our CARE theme, composed of four key elements:

- ✓ Creation of International Leadership
- ✓ Addressing national priorities
- ✓ Reinforcing our existing core competencies
- ✓ Enabling Change

By 2025, the Multiversity of Haifa will have leveraged its location by creating a network of inter-related specialized portals: Mount Carmel Campus (serving as main campus and the University's administrative and academic headquarters); Lorry I. Lokey City Campus (School of Data and Digital Sciences); Marine Campus (centering all oceanographic research and teaching); Medical Science Campus (at the Helmsley Health Discovery

Tower, a joint venture with Rambam); Engineering Campus in Karmiel; and the Joint Technological Institute at East China Normal University (ECNU) in Shanghai.

We are hopeful that this network will upgrade and increase student recruitment, transform our academic footprint and interface with the social and economic ecosystems through mutually beneficial partnerships. This is our strategy for creating synergies and significantly enhancing our local, national and international impact.

## **Conclusion**

The Multiversity is multi-spatial in its nature and thus more open and accessible. We believe that the University of Haifa's peripheral predicament does not, and should not determine its fate; our location and human composition offer a wealth of possibilities. Today, in the "Glocal" era, we create a new "sense of place" and gain new notions of identity and belonging. In offering these multidisciplinary and multi-spatial solutions for the future, we seek to seize the moment with both humility and daring.

That said, we are well aware that such profound changes carry a great deal of responsibility, as well as multiple challenges. The implementation of the Multiversity entails transformative change. This can, and will only be done with the approval and full support of the governing bodies of the university, whose input and advice are critical for the success of our transformation. We are on the cusp of unprecedented investment of resources and energy within the university and beyond. For these purposes, we seek the full commitment of our faculty, staff, students, governors and supporters. The full engagement of our entire community represents the key to our success.

This year, we expect to reach an all-time fundraising record. We see this accomplishment as an indication of trust and faith on behalf of our donors and partners that we are indeed on our way to a better tomorrow. We look to the future with hope and inspiration.

Sincerely,

Professor Ron Robin

President

## Academic Development

As a research university that places academic excellence at the top of its list of priorities, the University of Haifa is not resting on its laurels. The University is fostering an increasing number of “islands of excellence” in areas where it has a comparative advantage and proven research leadership, and in areas it wishes to lead. In the past year, the University began to implement the multiversity vision by creating combinations between different fields of knowledge that will produce real world solutions in an increasingly information-rich environment; promoted research and academic integration in the high-tech and bio-medical industries that are gaining a foothold in downtown Haifa; and secured an impressive number of prestigious academic awards and research grants.

**The Multidisciplinary Revolution:** The Rector's initiatives over the past year focused on expanding the educational and professional skills of university graduates, beyond the specific field of knowledge in which their studies were focused. To this end, two clusters of studies were developed: "Education for Entrepreneurship Cluster ", which proposes a connection between the world of academia and the world of high-tech industries through basic courses and projects to encourage entrepreneurship that stems from academic knowledge. These courses are designed to impart basic skills in problem solving, teamwork, formulating ideas for new business ventures, developing a business model, and above all - creative thinking. Another cluster of studies is the "Data Science Cluster", which offers an introduction to advanced and applied technological tools for processing data alongside studies in the students' chosen department.

**New Academic Programs:** The University's deeply-rooted commitment to innovation is an essential element of its future development. We continue to build existing programs and develop new curricula, including an undergraduate program in cognitive science and graduate programs in marine sciences, educational psychology, and legal studies for non-lawyers. In addition, a master's program in Human-Computer Interaction was approved in the Department of Information Systems.

The Council for Higher Education has approved the submission of a number of new undergraduate programs, which emphasize multidisciplinary studies in the fields of **Marine Sciences** - a program that combines geo-marine, marine and marine biology; **Criminology** - a program that combines sociology, psychology and law; **Biophysics** - a program that combines biology and physics; **Imaging**; and the **PEP Program** - which combines philosophy, economics and political science.

**Cultivation of Academic Excellence:** This year, we registered impressive successes in securing numerous research awards and grants. One of the most outstanding prizes is the Landau Prize for Science and Research in the field of sustainability, which was awarded to Prof. Ofira Ayalon of the Department of Natural Resources and the Environment for her significant and important contribution to a wide range of issues related to local and global environmental issues.

Another prestigious award was the Bialik Prize for Jewish Wisdom, which was given to Prof. Nili Shupak of the Department of Biblical Studies for her achievements in the study of Egyptian wisdom and her valuable contribution to understanding the world of the Bible and its links to Egyptian literature.

These prizes were awarded concurrently with the securing of significant research grants such as: NIH, ISF, ERC, BSF, Zuckerman, the Ministry of Science, Alon scholarships, Maof scholarships and more.

**Developments in the field of Data Science:** Developments, which began to take shape last year, were significantly strengthened this year with the inauguration of the Dylan Tauber building in downtown Haifa. We look forward to receiving final approval of the new undergraduate degree program in the field. The field of data science is relevant to many areas of academic studies, and they hold tremendous potential for innovation, not only in the exact sciences and in the health sciences, but also in the social sciences and the humanities. There is no doubt that the academic development of this field will jumpstart teaching and academic research in a wide range of disciplines, and will contribute to strengthening the State of Israel in the economic and security spheres.

**Military Academic Complex for IDF Officers:** The University of Haifa was awarded the “Military Academic Complex” tender and was chosen by the Ministry of Defense to serve as the academic framework for the training of the most prestigious military colleges - the National Security College, the College of Command and Staff and the Tactical Command College. This is the first time that the three colleges fall under the academic responsibility of one university, which will ensure uniformity and consistency in the training of officers and lead to an improvement in the quality of their academic education acquired in parallel with their military studies.

This year, about 170 officers and senior officers from the three military colleges began their studies at the University of Haifa:

The IDF National Security College (MABAL) - trains the senior staff of the IDF, the defense establishment and the government to senior command and management positions. MABAL students study for a master's degree in political science with specialization in strategic and national security studies.

The Command and Staff College (PUM) - is the IDF's instructional institution that prepares senior officers in the three military arms (navy, ground and air forces) to become its future leaders. Students receive an MA in Political Science with a specialization in Military and Defense Studies.

The Tactical Command College - provides training to young company commanders from all land forces, as well as from anti-aircraft and naval commando forces. Students enroll in the bachelor's degree program in the Department of Multidisciplinary Studies and another elective department – economics, communications, political science or education. Some of the studies take place at the University of Haifa main campus and some at the Gilot campus. In order to operate the programs efficiently and coordinate the programs, the University established a special administrative unit affiliated with the Rector's office, headed by Prof. Yossi Ben-Artzi, the former Rector of the University and the academic head of the military colleges.

Recently, work has begun on the construction of a dedicated complex for students of military colleges, which will include a secure lecture hall, advisor rooms and administrative offices, as well as new equipment and study aids.

In addition to being chosen as the academic home of IDF officers, the University won a professional development tender this year for training nursing students.

**The new Faculty of Engineering** This year, the University continued to advance the merger with Braude College of Engineering. The merger process between the two institutions to establish a Faculty of Engineering is closely aligned with the Council of Higher Education's overall plan to consolidate colleges and universities. The integration of an outstanding institution of higher education that is preparing and training students for high demand jobs in the Israeli work force will strengthen the University of Haifa's academic capabilities and broaden its academic offerings. The merger with Braude College will expand the University's academic reach in the Galilee, particularly in the field of engineering, and will contribute to strengthening the entire northern region.

**Internationalization:** The University received a grant of \$2.5 million for two years from the Council for Higher Education to expand the International School and improve its reputation and status in the international academic community. The grant enables the

University to promote international conferences, to attract leading international experts, to develop courses in English, and to grant scholarships to overseas students for graduate and post-doctorate studies.

Each year, the International School hosts about 1,200 students from more than 40 countries, from all over the world. The University promotes hundreds of international agreements and has signed nearly 450 agreements to date. The hundreds of international conferences held annually at the University greatly strengthen its international standing in Europe, North America, South America, Asia and Africa. The University has taken international rankings very seriously and has recently taken significant steps to improve its position in these rankings.

**Cooperation with Research Institutions in Israel and Abroad:** The University signed several strategic cooperation agreements with research institutions that will support the acceleration of its academic development in selected fields. Among the prominent examples in this context are agreements signed with universities in South America thanks to the Rector's efforts: Universidad Catolica del Uruguay, UADE (Buenos Aires Argentina) and Universidade De Sao Paulo (Brazil).

In addition, the number of agreements signed by the University under the EU's Erasmus+ program increased this year, with the aim of increasing student exchange and staff exchange activities funded by the European Union. For example: Charles University in Prague, Czech Republic; University of Copenhagen, Denmark; University degli Studi di Napoli Federico II, Italy; University of Malta and others.

This year, efforts were also made to promote the University's academic ties with China in order to establish its status as an important bridge for joint research between the two countries. In addition to the joint building of the University of Haifa and ECNU University, which was built in China, this year we signed an agreement for a master's degree in statistics. New agreements have also been signed with other leading universities in China, including Shanghai University of Finance and Economics and Zhejiang University.

**Recruitment of new faculty members:** The recruitment of outstanding faculty members is a cornerstone in building an excellent research community. This year, too, the University continued its efforts to recruit outstanding scientists, while giving priority to technological fields, data science and marine science. In the past year, we successfully recruited 29 young and outstanding researchers from the best universities and research institutes in the world: Oxford, Harvard, MIT, Yale, etc., while examining their possible contribution to academic excellence in teaching and research at the University. The

successful recruitment of new researchers at the University in recent years clearly demonstrates the merit of our faculty members in an unusual number of distinguished research grants.

**Marketing and recruitment of new students:** The University's marketing program in the past year included branding efforts, significant advertising in various media channels, improvement of the sales system, a return to the tradition of open days at the University and a significant presence at higher education fairs. The number of applicants to the University increased by 10% (9,999 compared to 9,083 last year). This increase, which is evident across all areas of study, stems, among other things, from customer retention activities, which included monitoring applicants who registered for studies and maintaining continuous contact until the completion of their studies.

In the 2018/19 academic year, 7,886 undergraduate students, 7,864 graduate students, 1,513 doctoral students and 151 students studying for a teaching certificate are enrolled at the University. This year, we continued the trend of raising admission thresholds in order to improve the academic potential of the students enrolled in the three degrees. As part of this goal, the University awarded a scholarship to students who had a psychometric exam score of at least 10% above the departmental weighted average, in a wide range of departments.

**Computer-Aided Instruction:** The activities of the Computer-Assisted Learning Unit are currently a central component of the University's activities, and have accelerated the improvement in the overall quality of teaching and learning. University of Haifa is currently one of the leading institutions in this area. A growing number of online courses are integrated into a wide variety of undergraduate and graduate programs and programs. At the same time, the number of faculty members seeking to improve the quality of instruction through the integration of advanced IT components continues to grow. The increase in the number of online courses is aligned with the PBC's five-year plan that allocates resources for the development of computerized teaching in universities and colleges.

After winning the Council for Higher Education's third and fourth tenders for the development of MOOC courses, the Computer-Assisted Teaching Unit began developing the five proposed courses. Four of the courses are being successfully implemented in the current school year, and they are joining the first MOOC course of Prof. Sheizaf Rafaeli, winner of the Council for Higher Education's first tender, which was being offered for the second time.

## Research Authority

The senior academic staff's active involvement in research projects has resulted in continued growth in recent years in the University of Haifa's portion of the research budgeting model of the Council of Higher Education and Planning and Budgeting Committee. The University's allocation was 7.50% (compared with 7.32% in the previous year), an achievement that was also reflected in the increased compensation granted to the University by the PBC. This was in addition to the excellence grants that were awarded in four areas for publications and winning research grants.

Over the past five years, the PBC's national research budget has grown by 13%, while the University's allocation increased by 44%. In the past decade (2008-2018) the University's portion of the PBC research budgeting model increased by more than 50% (from 4.89% to 7.5% ), the highest growth rate among all universities.

Nearly NIS 5.2 million of the NIS 8.6 million added to the research budgeting model in 20018/19 stems from improvements in the university's relative research outputs. The additional NIS 3.4 million stems from an increase in the national research budget.

About 60% of the total University of Haifa research budgeting model is derived from the publications component. About 23% of the income stems from the research grant component (competition-based foundations and others), with 80% of the income from research grants coming from competition-based foundations, is consistent with the 6% increase this year in the University's part in the competition-based foundations component.

**Research Authority efforts to encourage further research:** Along with existing mechanisms to promote research, the Research Authority offered new incentives this year designed to create a joint, up-to-date research agenda and continue the upswing in the research budgeting model seen in recent years.

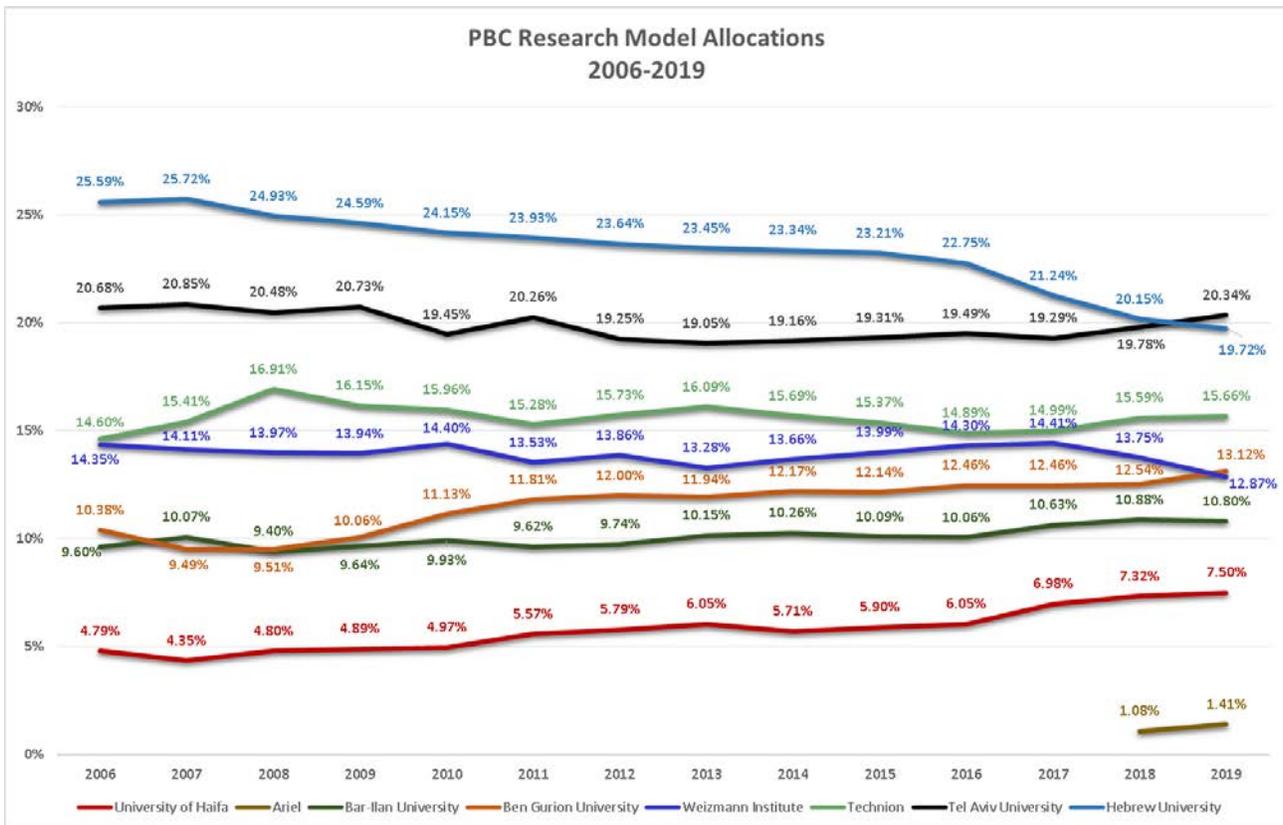
The incentive mechanisms are designed to assist researchers in realizing their research potential, and to continue the upward trend in the quality and scope of the university's research output. According to the current incentive model, relevant activities of the academic staff result in faculty-based compensation for relative income from the research budgeting model. In addition, a special grant was awarded to academic staff in faculties that were recognized for excellence by the PBC. For the first time, an incentive program was offered to publish Open Access articles, and a basic budget was provided for faculty members submitting a research proposal to the European Research Council.

Led by the Vice-President and Dean of Research, the Research Authority this year made extensive efforts to encourage staff members to submit research proposals and publish

their studies in professional journals ranked with a high impact factor. In addition to managing the incentives program – which includes advancement, additional research funds based on the PBC guidelines, and more – the Research Authority offered workshops on writing research grants, notified academic staff about grant opportunities, and directed and supported researchers in their efforts to obtain funding from competition-based foundations.

The Authority also set up meetings with the heads of research foundations, invested efforts to strengthen ties with government institutions and foundations, and awarded exploratory grants and prizes to outstanding researchers. In addition, representatives of the Research Authority participated in faculty councils and departmental meetings to identify staff members who may serve as suitable representatives to specific foundations (e.g., ERC), and conducted preliminary external audits for proposals being submitted to prominent foundations and funds (such as the German Israeli Project Cooperation - DIP).

The incentives described above are only a few of the avenues utilized by the University for advancing research. The University of Haifa supports research in several other ways as well, including additional research funding, construction and set up of labs and centers, purchase of research equipment, scholarships for research students, and expansion of the library budget. As a result, the budget allocated to encouraging University researchers to further pursue research activities totals tens of millions of shekels a year.



**Hiring new faculty members:** During 2017/18, 29 new researchers joined the University and received start-up grants totaling approximately \$1 million. In addition, another \$1 million was used to complete the recruitment grants provided to researchers who joined the University the previous year.

### **Research Grant Awards**

During 2017/18, grants were received from government agencies, bi-national research foundations and foundations abroad.

### **Research Grants from government agencies**

- **Ministry of National Infrastructure, Energy and Water:** Researchers from the School of Marine Sciences and the Department of Geography and Environmental Sciences received a total of NIS 817,677.
- **Ministry of Science and Technology** - researchers from the Charney School of Marine Sciences, the Faculty of Law, and the Departments of Gerontology, Sociology, Environmental Sciences, Economics and Computer Science received an impressive number of research grants totaling NIS 6,200,180.
- **Ministry of Defense** - Grants were awarded to researchers from Departments of Computer Science, Evolutionary and Environmental Biology, Marine Technologies and Physiotherapy, totaling NIS 1,035,619.
- **Ministry of Education** - Two groups from the Faculty of Education received grants totaling NIS 1,791,000, as part of a Call for Proposals for the development of research-based models on the training teachers in heterogeneous classrooms.
- **The Water Authority** - Researchers from the Department of Geography and Environmental Studies and the Department of Natural Resources and Environmental Management received research grants totaling NIS 999,925.
- **The National Insurance Institute**- Researchers from the Departments of Creative Arts Therapies, Political Science and Gerontology received research grants totaling NIS 1,022,260.

**Ministry of Science – A Call for Proposals for Establishing Knowledge Centers:** The University received NIS 3 million from the Ministry of Science to establish a national knowledge center for emergency and disaster management. The Center is headed by Prof. Debra Shmueli of the Department of Geography and Environmental Studies, and includes researchers from the Technion, the Hebrew University, Rafael, the Holon Technological Institute, Tel Hai College, the Haifa Municipality and Natan – a grantmaking foundation engaged in building the Jewish future. The Center will serve as a knowledge base for policy makers, decision makers, as well as the academic community and professionals from all sectors involved in the field.

**Trump Foundation:** Professor Roza Leikin of the Faculty of Education was awarded a grant of NIS 2,270,000 by the Trump Foundation for her research on Mathematical Mapping - Open Tasks for Mathematical Thinking.

### **International Cooperation:**

During the year, we strengthened cooperation with European and American researchers within EU programs, binational foundations, federal funds and German governmental international funding frameworks.

Bi-national Research Grant Awards: This year, University researchers secured impressive research grants from binational foundations from the US, Germany, India and China. A few prominent examples include:

#### **Israel-United States**

- **BARD** – A foundation that focuses on agricultural research awarded NIS 507,780 to Professor Abraham Korol from the Institute of Evolution.
- **BSF** – A total of NIS 2,129,762 was awarded to a number of University researchers including, Dr. Dalit Barkan from the Department of Biology; Dr. Sarit Avrani from the Department of Evolutionary and Environmental Biology; Dr. Eyal Privman from the Department of Evolutionary and Environmental Biology; Dr. Sigal Zilcha-Mano from the Department of Psychology; and Dr. Edwin Lebrija-Trejos from the Department of Biology and Environment at Oranim.
- **NSF-BSF** – A unique collaboration of the US-Israel binational foundation and the United States National Science Foundation enables Israeli researchers to participate in research funded by federal funds. Dr. Noga Ron-Zewi from the Department of Computer Science was awarded NIS 426,000 and Professor Shuly Wintner from the Department of Computer Science received NIS 284,000.

#### **Israel-Germany**

- **The German-Israeli Foundation for Scientific Research and Development (GIF)** – A total of NIS 1,201,648 was awarded to researchers from the Faculty of Natural Sciences including Dr. Iris Reuveni and Dr. Sarit Avrani, who were each awarded NIS 100,000 for young researcher grants, and Dr. Nir Sapir who received a NIS 1 million grant.
- **A Joint Grant to the Israeli Ministry of Science, Technology and Space and the German Federal Ministry of Education and Research (BMBF)** – A grant NIS 157,000 was awarded to Dr. Roei Diamant from the Hatter Department of Marine Technologies for his research conducted in cooperation with researchers from Tel Aviv University.
- **German Research Foundation (DFG)** – The Foundation encourages cooperation between Israeli and German researchers. Prof. Shuly Wintner from the Department of Computer Science and Dr. Anat Prior from the Faculty of Education received a grant of NIS 998,655.
- **Volkswagen with Lower Saxony** – Supports collaboration programs between universities and research institutions in Israel and Lower Saxony with the support

of the Volkswagen Foundation. Dr. Rachel Kolodny of the Computer Science Department received a grant of NIS 726,997; Prof. Yossi Chajes from the Department of Jewish History received a grant of NIS 543,745.

#### **Israel-China – ISF-China**

- Prof. Gal Richter Levin of the Department of Psychology and Sagol Department of Neurobiology received a grant of NIS 750,000; Dr. Inna Geisler-Salomon of the Department of Psychology received a grant of NIS 1,020,000.

#### **Israel-India – ISF-India**

- Prof. Malka Halpern from the Department of Biology and Environment (Oranim College) received a grant of NIS 1,230,000.

#### **United States Research Foundations:**

- **National Institute of Health (NIH)** - A grant of NIS 3,439,809 was awarded to Dr. Johanna Czamanski-Cohen from the School of Creative Arts Therapies.
- **John Templeton Foundation** - A grant of NIS 3,316,002 was awarded to Dr. Adi Livnat from the Department of Evolutionary and Environmental Biology.

#### **Cooperation with the European Union:**

- As part of the EU Research Program, the University once again hosted the annual Researchers' Night event – this year on the topic of “Seventy Years of Israeli Innovation”. About 2,500 visitors attended the event on the Mount Carmel campus and learned about cutting-edge research taking place at the University. The event was held in partnership with the EU's Marie Curie Program.
- Dr. Nimrod Marom from the Department of Archaeology and the Department of Marine Civilizations received a €1.5 million ERC Starting grant.
- Collaborative partnerships - EU-funded projects that allow a number of researchers from different institutions to collaborate on large-scale research projects on topics defined as important by the European Union. These grants are used to pay salaries, purchase equipment and recruit young researchers (doc and post-docs). More importantly strengthen international research collaborations:
  - Prof. Tsvi Kuflik of the Department of Information Systems is a partner in the CyCAT consortium, which focuses on improving digital literacy skills among the public. The issue came to the fore in light of the increasing use of digital communication between government and citizens.
  - Dr. Dror Angel of the Department of Marine Civilizations is a partner in futureEUaqua, which promotes natural, organic and conventionally friendly agriculture for large fish species and low-level organisms in Europe. The importance of the project stands out against the backdrop of climate change

and in view of the future challenges posed by the increasing demand of consumers for responsibly produced, high quality food. This grant is a fourth grant to Dr. Angel as part of the EU research program.

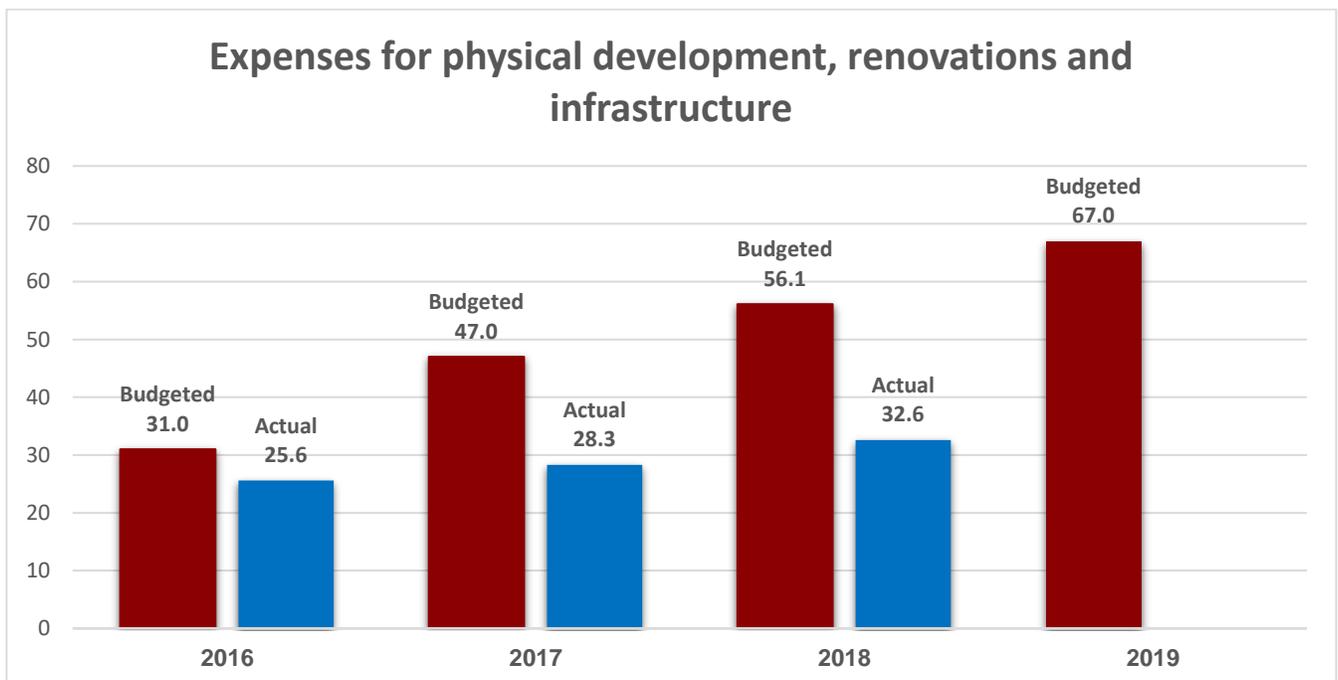
- Prof. Uri Hershberg of the Faculty of Natural Sciences is a partner in the iReceptor Plus consortium that promotes the preservation of human immunological information and the integration and controlled distribution of information.
- Prof. Eran Vigoda-Gadot, Dean of the Herta and Paul Amir Faculty of Social Sciences, Dr. Alan Hartman of the Department of Information Systems, and Dr. Itai Beerli of the School of Political Science are partners in the SeeRRI consortium, which promotes the 'Responsible Research and Development' approach in regional innovative research (Regional Responsible Research and Innovation), through the establishment of collaborative networks between universities, industry, government bodies, and civil society.
- This year, 14 University researchers joined the European Cooperation in Science and Technology (COST) Program, which helps foster international cooperation while coordinating research efforts on related or synergistic topics.

## Administration and Physical Development

In the past year, the University continued to invest in physical development to meet the many needs arising from the recruitment of researchers, academic development of the university, increasing number of graduate students, and the opening of new interdisciplinary programs. Total outlays for physical development in 2017/18 were NIS 33 million, compared to approximately NIS 28 million in the year 2016/17. The budget for physical development for 2018/19 was set at NIS 67 million, which includes allocations for the construction of the Faculty of Social Welfare and Health Sciences building, additional floors in the Herta and Paul Amir Faculty of Social Sciences building, and the SAP Financial Project (a multi-year project integrating an enterprise resource planning system).

Physical development in the past year included new construction projects, with main efforts focused on the Faculty of Welfare and Health Sciences Building; and the Herta and Paul Amir Faculty of Social Sciences building, in which the construction of the additional floors structure and basic infrastructure were completed.

This year, the University's master plan was approved, which will provide an additional 154,000 square meters around the campus.



Note: The 2019 budget includes NIS 6.5 million for the SAP financial project.

## **Major Development Projects**

**The Faculty of Social Welfare and Health Sciences Building** is currently nearing completion. The building, comprising a total area of 5,340 square meters, including dedicated labs and classrooms for the Faculty of Social Welfare and Health Sciences, was constructed at a cost of NIS 56 million. The project was launched with the generous support of the Israeli Council of Higher Education, the Cheryl Spencer Foundation, and Mr. Maurice Kanbar, longstanding friends of the American Society of the University Haifa. The building is being inaugurated as part of the events of the 47<sup>th</sup> meeting of the Board of Governors.

**Additional Floors of the Rabin Social Sciences Complex and an Animal Laboratory:** Thanks to a very generous gift of NIS 40 million from Herta and Paul Amir last year, four additional floors are being added to the Rabin complex, comprising a total of 3,200 square meters. The four floors will house new programs and departments, including the Department of Information and Knowledge Management in the Faculty of Social Sciences and the Department of Cognition in the Faculty of Management, and will enable the recruitment of new faculty members into existing departments. Construction is estimated to be completed during 2020. The project includes an animal research laboratory, being constructed at a cost of NIS 10 million with funding provided by the Council of Higher Education and the Sagol Department of Neurobiology, which will support research activities of the Faculties of Natural Sciences and Social Sciences.

**The Lorry I. Lokey City Campus:** As part of our Multiversity vision and strategic plan to expand its downtown presence, the University acquired the Dylan Tauber Building (formerly Carmel College) with the generous support of Chairman of the Board of Governors, Prof. Alfred Tauber. The 2,800 square meter building was inaugurated in November 2018. The University also leased a three-story, 1,500 square meter building from the Haifa Municipality, located at 4 Palmer Street. The renovation will take place in the upcoming year, together with the renovation of the building at 63-67 Hanamal. The building will be fitted with advanced research laboratories and classrooms. The renovation will be funded in part by the Haifa municipality, which has allocated NIS 10 million for the project, and with the generosity of Mr. Lorry I. Lokey and Mr. Brad Bloom, friends of the American Friends of the University of Haifa. The buildings will house the newly established School of Data Sciences, and include the Departments of Computer Science, Information Systems and Statistics.

**The Cable Car Project** has been approved by the Ministry of Transportation. The University has begun construction, which involves lowering the parking lot of the Reuven Hecht Arts Center to enable the cable cars to pass. Estimated completion date of the project is October 2020.

**The Helmsley Health Discovery Tower** at the Rambam Health Care Campus is a joint project of Rambam, the University of Haifa and the Technion. The Tower will include 20 floors (each 1,400 square meters) six of which will be allocated for University of Haifa research laboratories in the fields of neurodevelopmental disorders, life sciences and nursing research. Construction of the shell has begun and will be completed at an estimated cost of NIS 83 million. The project is being managed by Rambam Health Care Campus.

The University has additional building plans for the medium term, which are dependent on enlisting additional resources: the addition of 500 beds to the student dormitories (funded by the Council for Higher Education), the purchase of the 'Casino building' in downtown Haifa, and leasing an additional facility from the Haifa Municipality in the downtown area.

### **University Administration**

The University's administration is responsible for providing services to the academic units and for supporting research activities. The University continued to measure and evaluate various areas of operation this year. In addition, we completed numerous projects to improve services provided to students and faculty.

**The Younes and Soraya Nazarian Library:** As part of our commitment to improve services for students and faculty members, a number of new projects are now underway, including the Interlibrary Loan Project – a national initiative for sharing research and educational resources with libraries in Israel and around the world. The two-year pilot project was approved by Forum of University Directors. In cooperation with the Graduate Studies Authority, the Library now assigns a personal information liaison to doctoral students to assist with their research. The Library staff is now offering consultation services via WhatsApp; launched an improved library website that meets the changing usage patterns of our faculty and students; and expanded the Library collection through the purchase of electronic book services. In addition, the Library joined forces with the Office of the Dean of Students to establish an academic writing help center.

This year, the Library hosted a "Digital Hackathon," as part of our efforts to promote Digital Humanities. In addition, we continued the process of joining DARIAH, a European network designed to enhance and support digitally enabled research and teaching across the Arts and Humanities. The Library also hosted a symposium on the topic, with representatives from the Office of the Chief Scientist and all Israeli universities attending.

In the field of research, teaching and cultural heritage services, we completed the transfer of the digital objects system into the new library management system. We continued scanning and making new materials accessible. This year, the Library continued to lead the digitization projects for the preservation of the cultural and artistic heritage of the Haifa Municipal Theatre.

The Library is in the process of launching a social media crowdfunding campaign, the proceeds of which will be used to maintain and develop important databases, purchase books and expand operating hours of the library.

**Computing and Information Systems Division** continued their efforts to digitize and improve services for students, researchers and faculty. The Division completed the development of the CRM system that supports the MAPAL project, which helps increase the enrollment and matriculation of potential students. System data enables advanced statistical analysis of the registration data and the enrollment process in the Student Administration Division and the various departments. In the coming months, a new version will be released that will expand registration accessibility from student's smartphones, and soon it will be possible to generate reports with data that will help to mitigate drop-outs, as well as a database system for course graders and exam scores that increases student privacy. In addition, a management system for "soft" resources was implemented at the Office of the Rector, and computers were acquired for use by lecturers in classrooms.

In the past year, the Privacy Protection Act and the European GDPR standard became law. The Computing Division has published an official document on privacy protection and setting new work standards for privacy protection. To further ensure data security, steps were taken to migrate computer stations to a unified and secure university network.

**Infrastructure:** We continued the multi-year program for upgrading the University's communications network. All university mailboxes have migrated to Google and Microsoft cloud services, and most telephones have been replaced by digital IP devices, which are fully interoperable with the user's computer.

Installation of the communications system was completed in the Dylan Tauber building, located in the Lorry I. Lokey City Campus, and is now connected to the University computer network.

**Student Administration:** Recruitment and Marketing Division underwent major changes under the direction of the Student Administration Division. The new process went into effect in the past academic year. The Division held three "Open House" days for potential students, staffed with personal counselors and advisors for students who were considering their options. The recruitment and marketing activities led to an impressive increase in the number of new students who enrolled in the 2019-20 academic year.

#### **Human Resources:**

This year we accomplished a major step by directly employing the University cleaning staff, who were previously employed through an outside contractor. Some 80 employees were hired, most of them as administrative staff. The recruitment process included hosting informational sessions and providing special guidance. We are the first university to achieve this major step toward social justice within our community.

During the past year, the University Archives produced the book "A Tower of Memories" - a collection of memoirs by university employees who took part in a writing workshop.

**Quality Management System and Green Campus:** The University of Haifa was recognized in 2008 as a "green campus" by the Ministry of the Environmental Protection, and regards respect for the environment as a valuable and integral part of its organizational culture. The University is the only academic institution in Israel that is certified for its adherence to environmental management standards and is the only university that reports on greenhouse gas emissions. This year the activities continued as part of the University's commitment to complying with ISO14001 environmental management standards.

- As in previous years, we organized a Good Deeds Day in cooperation with the University's Flagship Project, in which 100 faculty members volunteered in six different locations to help renovate schools for children with special needs, work in community gardens throughout Haifa, clean up the Carmel Nature Reserve, volunteer in geriatric centers.
- On Tu B'Shvat we inaugurated a community garden on the roof of the Hatter Student Building, with the support of the State of Israel's Ministry of Justice and in collaboration with the Kadas Center for Green Roof Research. In addition, a

community garden was inaugurated in the dormitory complex, with a newly installed compost facility.

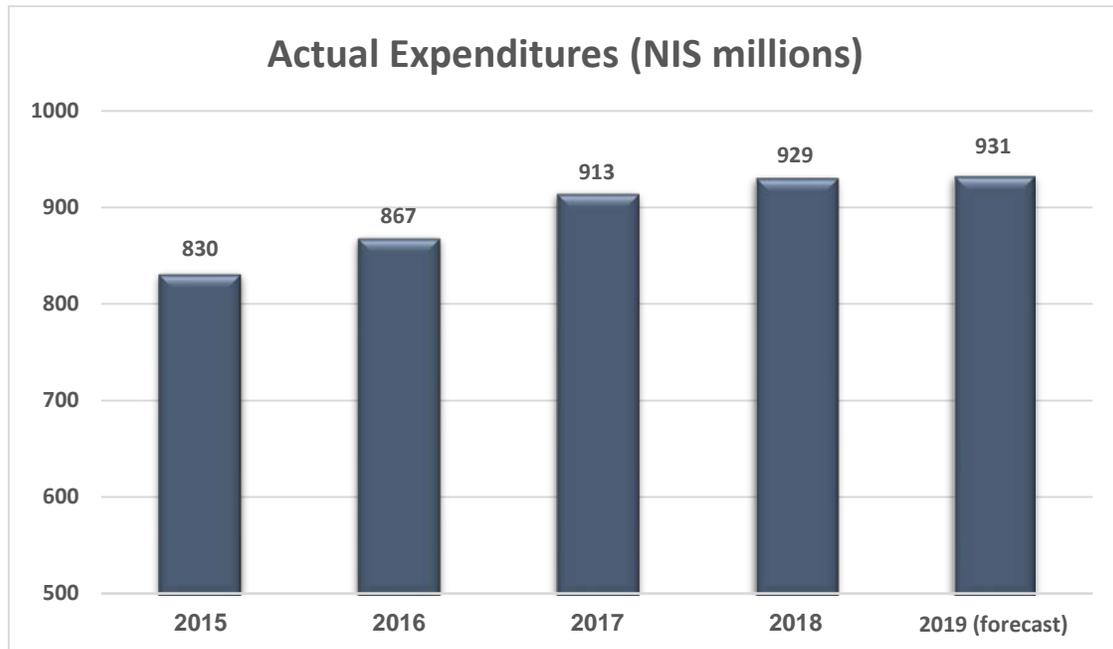
- Smoking throughout the campus has been limited to designated smoking areas.
- Feeding of campus cats has been regulated by placing feeding stations near the buildings.
- Students were involved in other environmental activities - cleaning beaches, maintaining two community gardens throughout Haifa neighborhoods (Ein Hayam and Neve Sha'anani), cleaning up public parks in the Hadar neighborhood, establishing the "Robin Food" coffee shop in the Talpiot market in Haifa.

Efficiency and savings: This year, reorganization of campus security systems will result in future savings of about NIS 1.6 million per year; water meters and LED lights were installed, and several outdated electrical infrastructures were replaced.

Thanks to funding of NIS 6 million over a two-year period from the Council for Higher Education, we continued to improve the accessibility of campus facilities for individuals with disabilities.

## Budget

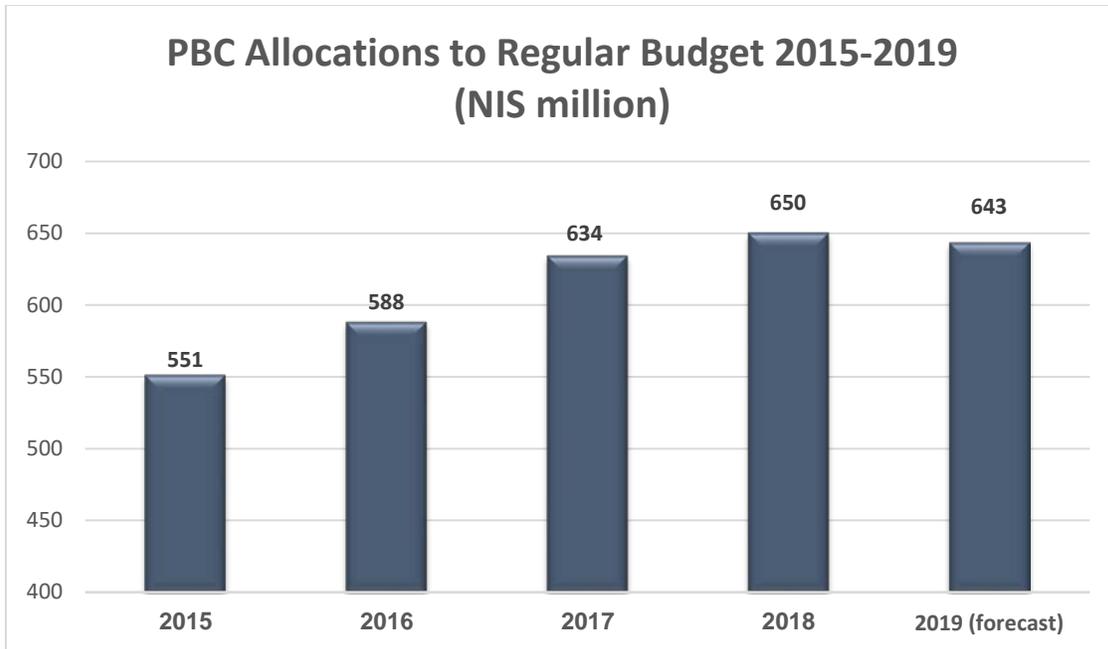
The regular budget for the 2018/19 academic year is NIS 931 million, compared with actual expenditures of NIS 929.5 million for the 2017/18 academic year. The 2018/19 budget reflects academic development while maintaining a balanced budget.



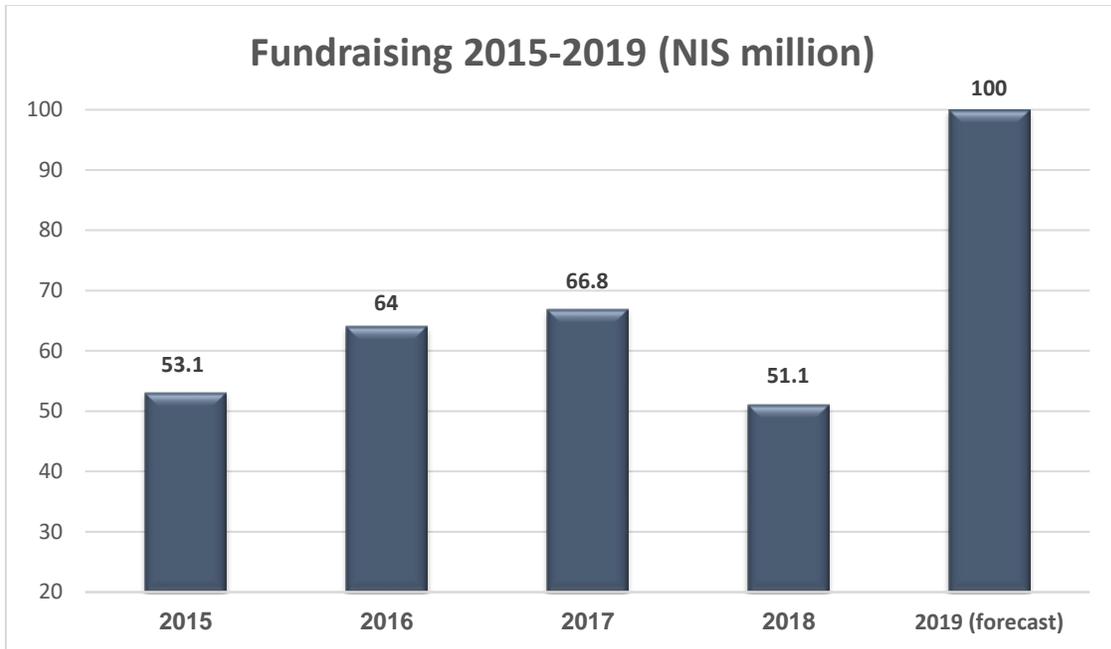
The 2018/19 budget is based on 17,460 students, including 7,920 undergraduate, 8,040 masters' students, and 1,500 doctoral students – an increase of 200 students compared to the previous year.

The income side of the 2018/19 budget includes an allocation of NIS 643 million from the Council for Higher Education (CHE), compared to 2017/18's allocation of NIS 650 million. From this allocation, NIS 326 million is the result of the teaching model and NIS 221 million of the research model.

The following graph describes the allocations made by the CHE in recent years (allocations constitute 69% of the regular budget). Most of the decline in the CHE's allocations this year stems from a decrease in the University's income from the teaching model.



The total donations budget for 2018/19 was set at NIS 100 million (\$ 27 million), of which NIS 10.8 million was allocated to the regular budget and the remainder for development projects, research budgets, closed budgets and funds. In 2017/18, total income from donations was NIS 51 million (\$ 14.4 million), of which NIS 6.8 million was allocated to the regular budget, and the remainder to development projects, research budgets, closed budgets and funds. Actual performance in 2017/18 does not include the receipt of a joint donation to the Rambam Health Care Campus and the University of Haifa, in the amount of approximately NIS 20 million (approximately \$ 5.5 million), which is designated for the construction of the Helmsley Health Discovery Tower. The total commitment from The Helmsley Charitable Trust for this project is \$18 million.



### 2018/2019 Budget vs. 2017/18 Actual

	2017/18 Actual		2018/19 Budget		% Change
	NIS million	% of total	NIS million	% of total	
<b>Regular Budget Income</b>					
PBC allocation	650.5	70%	643.5	69%	-1.1%
Income from students	197.4	21%	208.7	22%	5.7%
Other income	81.6	9%	78.8	9%	-3.4
<b>Total Income</b>	<b>929.5</b>	<b>100%</b>	<b>931.0</b>	<b>100%</b>	<b>0.2%</b>
<b>Expenses</b>					
Salaries and Pension	696.2	75%	732.3	79%	5.2%
Other Expenses	233.3	25%	198.7	21%	-14.8%
<b>Total Expenses</b>	<b>929.5</b>	<b>100%</b>	<b>931.0</b>	<b>100%</b>	<b>0.2%</b>

The regular budget for 2018/19 reflects the academic development of the university, including the development and upgrading of teaching and research infrastructures and the hiring of new scientists. It also reflects the University's effort to cope with constraints and meet its goals over the course of the year.

In addition to the regular budget, activities carried out within the framework of research budgets totaled NIS 134 million, in accordance with the awarding of research grants, as well as activities associated with closed budgets of NIS 60 million, and development budgets, including physical development, of NIS 67 million. These activities are balanced in accordance with the resources available to the University.

### **Scholarships**

Funds allocated for scholarships from the regular budget in 2018/19 totaled NIS 38.9 million.

Scholarships given from the 2017/18 regular budget totaled NIS 41.1 million. Of this, NIS 10 million went to undergraduate students and NIS 31.1 million went to graduate students (MA, PhD, and Post-docs.)

In addition to the scholarships that were allocated from the regular budget, additional scholarships totaling NIS 35.8 million were given from closed budgets and research budgets.

## **Division for External Relations and Resource Development**

The Division for External Relations and Resource Development continued to focus its fundraising efforts to support the priority projects of the University. As the University continues to implement the multiversity vision and transition to a multi-campus university, it requires substantial resources to achieve its ambitious goals and support new academic programs. In the past year, the Division continued to strengthen relationships with longstanding University friends and it expanded its professional staff to further develop the University's international fundraising network.

The inauguration of the **Dylan Tauber Building** at the beginning of the current academic year (October 2018) marks a significant milestone in the expansion of the University's downtown activity. The Dylan Tauber Building joins the three existing buildings of the **Lorry I. Lokey City Campus**. The downtown campus, established with the generous support of Lorry I. Lokey and Prof. Alfred Tauber, will be the home of the new School of Data Sciences – the first of its kind in Israel.

Prof. Alfred Tauber is currently completing a six-year tenure as Chair of the Board of Governors. During this time, he generously supported a variety of projects including the Dylan Tauber Building and the Donors Garden; the Tauber Bioinformatics Research Center; the Wild Cereal Gene Bank research facilities; the National Outcome Rehabilitation Monitoring Implementation and Research Project (with the Ministry of Health); and student scholarships in various disciplines. Prof. Tauber's longstanding and generous support places him as the largest donor since the establishment of the University. He will continue to be involved in the University in his new role as Honorary Chairman.

We are pleased to welcome Mr. Bradley Bloom as the incoming Chair of the Board of Governors. Mr. Bloom is a senior volunteer leader at the Combined Jewish Philanthropies of Boston, a founding member of the Boston-Haifa Partnership and a driving force behind the new Digital Health District Initiative in Haifa.

In December 2018, the University and Rambam Health Care Campus hosted a ceremony marking the completion of the first floor of the Helmsley Health Discovery Tower. The joint project is regarded as one of the most important projects in the fields of medicine and life sciences in Israel. The project was launched thanks to a generous gift from the The Leona M. and Harry B. Helmsley Charitable Trust. The Division is continuing to invest considerable time and effort to secure additional resources necessary to build and furnish the 20-floor Tower.

The new Faculty of Social Welfare and Health Sciences building, which was made possible thanks to the generous support of American friends Aaron Spencer and Maurice Kanbar, is nearing completion. A special dedication ceremony will be held during the Board of Governors Meeting to inaugurate the building. During the Meeting, a cornerstone laying ceremony is scheduled for the Wild Cereal Gene Bank, which is being established with the support of Prof. Alfred Tauber and our British friends, Sir Mick and Lady Davis.

A number of new agreements were signed last year for projects supported by our Friends Associations around the world: Tzili Charney, Vice-Chairman of the Board of Governors, spearheaded the opening of a new program, "The Leon Charney Forum for New Diplomacy," headed by Ido Aharoni, Global Distinguished Professor, New York University and former Israeli consul in New York; Yaron Valler (Israel/Germany) set up the Valler Scholarship Program in the Department of Jewish History; and Nina Weiner (USA) established the Walter Weiner Scholarship Fund for graduate students participating in a training program to combat anti-Semitism and anti-Zionism.

Additional gifts were received from Sammy Sagol (Israel) to continue his support for the Emili Sagol Creative Arts Therapies Research Center; Eli Horn (Brazil) for continued support of activities at the Gaon of Vilna Campus Synagogue; the Abeles Foundation (Australia) to support the Jewish Peoplehood Program; Doron Livnat (Israel) for continued support of the Weiss-Livnat International Interdisciplinary Center for Holocaust Research; and Barry Landy (UK) and the Landy Charitable Fund for their continued support of the Cairo Genizah research project.

**Global Resource Development:** The Friends Associations focused their fundraising efforts this year on key projects through targeted campaigns: the American Society of the University of Haifa focused on the downtown city campus; the British Friends on marine sciences; the Canadian Friends on the Helmsley Health Discovery Tower; and the Israeli Friends on raising the necessary resources for the academic merger with Braude College in Karmiel.

The Friends Associations also worked closely with the University's Marketing and Student Enrollment Department and the International School to support recruitment efforts for the University's international programs. Representatives of the Associations actively participated in student study fairs in France, Brazil, Mexico and Panama.

The Israeli Friends Association is pleased that Joel Carasso, Chairman of Carasso Motors Ltd., has joined its ranks of supporters. Mr. Carasso is championing the implementation of the multiversity vision through the establishment of the Carasso Center for Mechanical Engineering at the soon-to-be-established Faculty of Engineering. The Faculty, which will provide training for future engineers, will be located on the Karmiel campus following the planned merger with Braude College. The Israeli Friends worked diligently to strengthen

its ties with organizations and companies in the private sector, expanded its activities among other sectors, and launched the Haifa and North Forum of senior officials in the economy – a network for business leaders from the region, many of them University alumni, to share their knowledge and abilities.

The Canadian Friends Association awarded an Honorary Doctorate to Dr. Michael Baker, one of Canada's leading medical professionals. The event was held in collaboration with the University Health Network (UHN) and the Rambam Health Care Campus, and was dedicated to supporting projects at the Helmsley Health Discovery Tower.

The British Friends welcomed new members to its Board of Trustees this year. The Association is currently setting up a "Sea Science Forum", and planning a fundraising event dedicated to marine science. Last year, the British Friends held a fundraising event to support activities at the Ezri Center for Iran and Persian Gulf Studies.

The Brazilian Friends Association held a reception at the Sao Paulo home of Prof. Celso Lafer, honorary doctorate recipient of the University. The event was attended by prominent representatives of the academic leadership of Sao Paulo and leading members of the Jewish community. Prof. Lafer has generously established a scholarship fund for students at the Charney School of Marine Sciences.

The German Friends Association continued its long-standing support for various programs at the university, including the Jewish-Arab Community Leadership Program and the Werner Otto Scholarship Program. The German Friends hosted its annual event in Hamburg to raise funds for these programs.

During the year, the Division expanded its professional fundraising network to include new regions around the world. We are pleased to report that our network now includes four new fundraising desks: the Latin America Desk; the Western European Desk; the Eastern European Desk, focusing on the Russian-speaking audience; and the Asia-Pacific Desk. The new Asia-Pacific Desk launched its activities in Hong Kong as part of an event hosted by real estate magnate Ronnie Chan, and plans to expand its activities to other countries including China, Taiwan, Singapore and Australia.

The soon-to-be-established Friends Association in Chile will join the three Associations operating in Brazil, Argentina and Mexico. The Division is working closely with Rector Gustavo Mesch to promote academic collaborations in Latin America. The Rector visited a number of Latin American countries this year, representing the University at a variety of academic events and fundraising functions.

**Strategic cooperation with international and local bodies:** Significant progress was made this year in advancing the University's unique collaboration with the prestigious World Economic Forum in Davos, headed by Prof. Klaus Schwab, an honorary doctorate recipient

of the University. As part of the initiative, the University joined a limited network of universities that advise the Forum on issues and challenges with global implications.

In addition, the University is exploring collaboration opportunities with the *Keren Kayemet LeYisrael* – Jewish National Fund, including the establishment of a sea research center in northern Israel.

**Crowd Funding:** The Division is working to promote a web-based crowd funding campaign. The campaign will invite the public to participate in funding various projects at the University. The first pilot will be devoted to fundraising for the Younes and Soraya Nazarian Library, followed by additional campaigns that will focus on student welfare projects.

**Ambassadors Team:** A new joint initiative of the Divisions of External Relations and Resource Development and Human Resources, the Ambassadors Team, has recruited a group of University employees who have volunteered to host individuals and groups visiting the campus. Our new ambassadors took part in a special training program to familiarize them with the mission and vision of the University. The goal of the initiative is to create a meaningful experience for our guests on campus and strengthen our public relations in Israel and around the world.

The joint fundraising efforts and generous support of our longstanding and new friends in Israel and around the world totaled \$20 million in donations (actual donations, indirect donations, additional resources) in 2017/18. In addition, over \$27 million in pledges were secured, a record for the past decade.

The Division for External Relations and Resource Development continues to improve its professional capabilities, to act in new and creative ways, to identify opportunities to expand the circle of donors and friends and to establish productive relationships with philanthropic foundations and organizations. At the same time, the Division strives to strengthen the vital connection and cooperation with faculty members, faculty members and students.

## **Carmel-Haifa University Economic Corporation Ltd.**

Carmel-Haifa University Economic Corporation Ltd. (Carmel) serves as the commercialization and business arm of the University and is responsible for protecting and commercializing its intellectual property. Carmel collaborates with various partners and establishes ventures and funds with the goal of maximizing the business potential of commercializing research and knowledge developed at the University. Carmel is committed to enabling additional research and moving newly developed technologies from the laboratory to the marketplace. Several of Carmel's business collaborations have matured in the past year into significant agreements. In addition to these agreements, the upward trend in investments and revenues continues. The total revenues and investments of the company amounted to NIS 12.5 million in 2018. In the 2019-20 academic year, total investments and revenues are expected to amount to NIS 13.5 million.

Carmel Innovations Investment Fund, founded and managed by Ms. Elka Nir, offers a unique opportunity to invest in leading projects that have germinated and developed at the University of Haifa. The fund supports the activities of Carmel – initiating, establishing and supporting companies with commercial potential, and nurturing them to the where global companies or other partners will be interested in collaborative agreements or acquisitions. The establishment of the Fund is one of the outstanding achievements of Carmel, as it enables the allocation of initial financing to companies established by Carmel as part of the commercialization of innovative research projects of the University. The Fund, founded three years ago, has already registered a number of successes. Carmel Innovations invests an average of \$500,000 in each of the start-up companies during their first two years of operation. Following the success of the first fund, Carmel established Carmel Innovations Fund II, also managed by Carmel and Elka Nir, which is already secured notable achievements and a vote of confidence on the part of the investors. The Fund will invest in projects in various innovative fields such as artificial intelligence, marine science technologies, digital medicine and more.

Carmel and the investment funds are incubators for innovation and entrepreneurship. In addition to initial financing, they offer the young start-up companies facilities, laboratories, counseling and marketing, financial and legal support. The company's extensive business connections and its proven experience in entrepreneurship, establishing strategic partnerships and accessing financing, make it a technological accelerator and incubator for the projects it launches. Carmel holdings include start-up companies and the investment fund. To date, Carmel Innovations has invested in a number of companies, including ArtsAvit Ltd., whose activities based on the research of Prof. Sarit Larisch in the field of cancer research; MemoBoost Ltd., which develops a drug

to strengthen cognitive function, and is based on the research of Prof. Edi Barkai; Memodero Ltd., which is developing a new drug for fear and anxiety disorders, based on the research of Prof. Rafi Lamprecht and Dr. Monica Dines; and CanCuRx Ltd. which is developing compounds derived from fungi for the innovative treatment of cancer based on the research of Prof. Solomon Wasser, Prof. Fuad Fares and Dr. Lital Sharvit. CanCuRx is currently in advanced discussions with several interested investors and partners.

Another company that received funding from Carmel Innovations is ProteKt Ltd., which is developing a drug to improve cognitive function and treat Alzheimer's disease. The future drug, based on Prof. Kobi Rosenblum's research, may lead to a significant delay in the appearance of symptoms of the disease and improve the functioning of those suffering from moderate cognitive disorders. During the company's first year of operation, Carmel raised strategic investments of \$8.1 million from leading global pharmaceutical companies and venture capital funds (Takada, Orbimed, Johnson & Johnson), representing a sevenfold increase in the company's value in less than one year. From this capital, NIS 1.5 million was invested in research conducted at the University. Carmel holds a seat on its board of directors and will receive royalty payments based on revenue. Last year, the company raised \$500,000 from new investors. The company's progress and the investments being made by strategic entities confirm the success of the business model being employed by the Carmel investment funds.

**Cooperation with the Haifa Economic Corporation:** Carmel and the Haifa Economic Corporation have signed a strategic agreement that will see the Corporation invest \$ 1 million in projects established by Carmel that will operate in Haifa for at least two years from the date of their launch.

**The first fruit of the collaboration between Carmel and the Haifa Economic Corporation is SEAERRA:** During the year, Carmel established SEAERRA VISION LTD., based on the unique and leading research of Dr. Tali Treibitz from the Department of Marine Technologies. The company received \$500,000 in investments – \$400,000 from Carmel Innovations II and \$100,000 from the Haifa Economic Corporation. SEAERRA develops algorithmic and hardware solutions to improve vision and underwater photography. The groundbreaking technology is applicable to a variety of fields including gas and oil exploration, military situations, applications in the field of marine agriculture and more.

**Cooperation with various parties in the region:** As part of its extensive activity to promote entrepreneurship and innovation among the student body, Carmel led a call for proposals in the area of entrepreneurship and innovation together with Braude College of Engineering and Tel Hai College. Selected projects from the competition will receive

support and services from Carmel's accelerator and incubator and may mature into ventures that will secure an investment from Carmel Innovations Fund II.

Carmel initiated and led additional calls for proposals to encourage new applied research projects with funding and support, one with Rambam Health Care Campus and the other with Braude College. The joint Carmel- Braude call for proposals was awarded to Dr. Roei Diamant from the Department of Marine Technologies together with his partner Dr. Avi Weiss from Braude College.

**Cooperation with investors and partners from China:** Carmel continues to promote its business relations with partners from China. Carmel advances the commercialization of applied research projects that are developed at the Joint Translational Institute of Science and Technology (JTI) – a University of Haifa-East China Normal University joint venture. In addition, Carmel is working to establish an investment platform with SITI (a Chinese business entity) and ECNU in Shanghai.

**Promoting entrepreneurship and joint research with the industrial sector:** In the past year, Carmel has raised significant resources for other selected projects with commercial potential. The research activities carried out at the University as part of these projects were funded by senior partners in industry. One example is the \$1 million fundraising from Samsung for groundbreaking research led by Dr. Dan Feldman and his team. In addition, dozens of meetings were held with members of the industrial sector and its related ecosystem to promote cooperation with University researchers.

In collaboration with the Division for External Relations and Resource Development, more than \$1 million has been raised in recent years to fund Aaron Avivi, Imad Shams and Irena Manov's research focused on the blind mole rat as a laboratory model for cancer resistance. Prof. Alfred Tauber has donated hundreds of thousands of dollars this year to support the development of applications based on the research activities of the Tauber Bioinformatics Research Center. The development and commercialization of the applications were carried out within the framework of Pine Biotech, which was established by Carmel.

**Cooperation with the Israel Innovation Authority (formerly the Office of the Chief Scientist)**

In the past year, Carmel has raised resources in excess of NIS 2 million from the Israel Innovation Authority, and has promoted dozens of calls for proposals. Two of the most prominent were the "Automated System for Balance Evaluation in Elderly Individuals", led by Prof. Ilan Shimshoni and Prof. Hagit Hel-Or, and an agricultural project led by Dr. Anna Brook.

## Office of the Dean of Students

The Dean of Students is the main authority at the University acting to ensure the welfare of all students, addressing their overall personal, academic and financial needs while maintaining close contact with the University's academic and administrative bodies. In addition to its ongoing activities, the Office of the Dean of Students defined two main goals in the past year and worked to promote them:

1. **Reducing Gaps in Accessibility to Services** - The Office of the Dean of Students is working across the organization in accordance with the accessibility regulations of institutions of higher education, and in response to the need for improvement as indicated in university surveys.
2. **Developing career services** designed to introduce students to career opportunities and prepare them for the workforce. These services are a continuation of the services already offered by the Dean of Students in the field of career counseling and career development, and are aligned with the University's current marketing message of educating students for professional success in the future.

**Improvements in accessibility of services** – The Unit for Accessibility and Learning Disabilities, established last year, provides assistance to students with disabilities and helps them fully access their rights. The Department assists students to receive accommodations and support from the various departments. This year an outside consultant joined the Learning Disabilities Unit who works to improve access to services, as well as a dedicated advisor specializing in students from the Arab society. As a result of these efforts, the number of Arab students being referred to assessments increased (from 7 Arab students in 2017/8 to 36 in 2018/19), and funding for all assessments increased. The Unit and its various academic consultants provided services to 930 students with disabilities and special needs.

Additional activities this year included the establishment of a medical committee, headed by a physician from the Department of Nursing, which provided professional assessments of students seeking special accommodations. The Committee reviewed individual requests, set standards for accommodations, and formulated guidelines based on professional expertise. A new room was established at the Hatter Student Building equipped with assisted electronic devices and software; accessibility training was provided to administrative staff in cooperation with the Human Resources Department. A career coordinator specializing in students and graduates with disabilities was recruited (in cooperation with the Joint Distribution Committee). A special program was held to raise awareness of the importance of accessibility at the University, which brought together students from the "Academia Practica" program, participants from a workshop

at the School of the Arts, and soldiers from the *Havatzalot* Program. In addition, an event was held to showcase the various activities and promote awareness on the subject.

**Development of Employment Services** - The Career Development Center at the Office of the Dean of Students operates an internship program that enables students to acquire employment experience during their studies and professionally network, which will help them to integrate into the workforce. During the 2018/19 academic year, 147 students took part in the program, in two special tracks:

- The "Bridge to Accessible Employment" track supports the integration of students with disabilities into the job market, while increasing awareness among employers;
- A practical training course in the summer for students from Arab society, held in cooperation with "Tzofan" and "Hadavar ha Ba" program. The course focuses on the development of Android applications and basics of software engineering. This course simulates teamwork in a hi-tech environment, guided by software engineers from the field. In the 2018/19 academic year, 21 students from the Department of Computer Science and the Department of Information Systems participated in the program.

In the 2018/19 academic year, the Center for Career Development worked to improve the efficiency of its career counseling services by implementing computerized tools (questionnaires, tests, information on professional fields and study tracks), as well as the new employment program "Siftach", developed by the Israel Government and JDC-Israel, which helps students and academics with disabilities with job placement services. The Career Development Center purchased an online job search system that includes a wide range of jobs for students and graduates, and matches them to thousands of potential employers in Israel. In May, the Center participated in a Job fair, sponsored by various governmental organization and the Student Union.

The Offices of the Dean of Students also operates additional units:

**The Scholarship Unit** awards scholarships for excellence and economic assistance, scholarships for social activities and other special scholarships. The scope of scholarships granted by the Unit has increased in recent years and now totals NIS 16 million per year. We aim to maintain this trend and expand scholarship support to encourage and promote academic excellence and help our students to realize their academic and personal potential.

**The Academic Excellence Unit** offers an academic and personal support program for students, made up of four main programs: "**A Step Ahead**" **Preparation Program**, which introduces students to the campus and the academic system (220 students participated);

**A Social and Individual Mentoring Program**, in which 202 students participated, 151 from the Arab society and 37 of Ethiopian descent and 14 new immigrants and students with disabilities; **Enrichment Program**, which included 44 courses enrolling some 732 students, and **individual tutoring** program for 1,149 students.

In addition, the Academic Excellence Unit offers The Program for Advancing Outstanding Ethiopian Students, which enabled the admission of 35 new Ethiopian students in the current academic year. In addition, scholarships were awarded to 100 students of Ethiopian origin, based on academic potential and financial needs. Supported by "Delta Industries, this unique program offers workshops on various topics such as learning strategies, time management, leadership and empowerment. This year a session on management of personal finance was added.

The Unit set up an academic writing center in the University library where 670 students received assistance with paper writing. The Unit also offered writing workshops to 204 students from the Faculties of Law, Education, and Social Welfare and Health Sciences. In the coming year, the Dean of Students plans to expand the scope of the Academic Excellent Unit – increasing the number of enrichment classes and tutorial services and assistance provided through the academic writing workshops.

**The Social Involvement Unit** includes 433 socially-conscious students ready and willing to engage in community action for social and individual change. The activities take place in educational and social frameworks and in community centers throughout Haifa. The Unit continued to take part in the "Access for All" program, supported by the Council for Higher Education, the Matanel Foundation, Doron Livnat and other donors. Last year 454 adults from underserved populations participated in the program, enrolling in introductory university courses in various disciplines, including psychology, health and law.

**The Raveh-Ravid Foundation** supports the Program for Excellence, Leadership and Social Responsibility (28 students), the character-building sports activities (25 students) and the Academia-Practica program, which involves students in the Faculty of Humanities in courses with a supervised practical experience component (26 students).

Raveh Ravid supported 28 students (undergraduate and graduate students) who participated in the leadership program that combines academic excellence, leadership and social responsibility. The foundation also supported 15 students in the "academic practica" program, which combines academic coursework in the humanities with field work in various organizations. This year, a new model was implemented in the Raveh Ravid Leadership Program, in which students participate in the Leadership Program based

on their academic progress in their degrees. This year, three task forces and a community project were launched in cooperation with the Leo Baeck Community Center for women from low socioeconomic backgrounds, in addition to academic leadership development program for members of the Druze community, supported by the Kaplan- Kushlick families and the David and Inez Meyers Foundation. The Jewish-Arab Community Leadership Program, supported by the German Friends Association with the Myers Foundation and the Rothschild Ambassadors Organization, aims to reduce socio-economic gaps and promote social responsibility and involvement through academic studies and community fieldwork.

This year, the Social Involvement Unit continued to operate a special program which promotes dialogue between various social sectors in Israel. In one of the groups, participants from Israel's secular society meet with young people from the Haredi community. In addition, the program organizes learning groups in which Arab students teach Jewish students Arabic, and Jewish students assist their Arab peer with improving their Hebrew skills.

**The Psychological Counseling Unit** - With the arrival of a new director, the Unit recruited a number of staff members including a head psychologist. The Unit provided services to about 400 students, with a focus on maximizing their academic potential, improving their self-esteem, and reducing anxiety and stress. In addition, the Faculty of Social Welfare and Health Sciences operated a pilot project in which faculty counseling and support were provided. The purpose of the pilot was to identify emotional difficulties and increase the accessibility of the services of the Psychological Counseling Unit and the Office of the Dean of Students as a whole to students and faculty members in need of such services. The Psychological Counseling Unit also provides support to high school counselors of the "Reali" school, as well as the psychologist and social workers in the Beit Biram military boarding school. This collaboration expands on our services that focus on early detection of distress among the students and educational staff, and their referral to the appropriate professional services.

**The Dormitory and Housing Unit** manages the dormitory complex on and off campus, which has 1,100 beds and a variety of housing options for individuals, couples, pre-academic students, students with disabilities, overseas students and guests. The student housing complex offers a range of spaces of social activities and get-togethers, computer rooms, services such as laundry facilities, and a mini-market and pub. Renovations are being carried out on building infrastructure and facades and operations are being optimized for energy efficiency. Last year, the University began the renovation of 50 apartments in the Shikma dormitories located off-campus, which is expected to be completed within two years. In the upcoming year, a multi-year renovation project will

begin for the renovation of 550 shower facilities in the Talia Dormitories, which were built in 2000. The dorms are a vibrant and bustling hub that organizes events, enrichment activities through social coordinators, and in cooperation with the Student Union. In the student dormitories, the Jewish-Arab Community Leadership Program operates a special program to promote tolerance among the diverse populations living on campus.

## Graduate Studies Authority

This year, 2,870 graduate students and 180 doctoral students will receive advanced degrees from the University of Haifa. These students will play an important role in strengthening Israeli society by advancing new technological and creative ideas. The Graduate Studies Authority (GSA) plays an important role in realizing the University's multiversity vision, providing a supportive framework for graduate and doctoral students with its unique, cross-faculty approach and infrastructure, as well as inaugurating new academic programs approved by the Council for Higher Education.

Over the past year, Prof. Lili Orland Barak, Dean of the GSA, instituted a number of new initiatives that expanded its basket of support services to include academic and personal mentoring for doctoral students. This innovative approach paved the way for a number of new ideas:

- **"Soft Landing"** – GSA hosted a special event for graduate students at the beginning of the academic year in cooperation with Prof. Lea Wittenberg, advisor to the President and Rector on gender equality. Participants took part in workshops on practical tools and skills for academic career management, including making effective presentations, honing personal and professional development skills, and an overview of services offered by the university.
- **'Walking the Talk'** - A day of bilingual, academic skills development workshops for the Haifa Grad Team, the new cohort of the University's outstanding doctoral students. Facilitated by senior faculty members, the workshops addressed topics such as preparing presentations for scientific conferences, writing articles and critical reading, and submitting research grants.
- **"Bar Talks in the City"** – As part of the Haifa Grad team's volunteer activities, doctoral students lectured on various topics in pubs throughout Haifa.
- **Young Researchers Meetings** - Taught by Prof. Michal Biron, the course provided strategies and practical approaches to help doctoral students cope with challenges they face during their degree and following completion of their doctoral studies. This new academic course was offered for the first time in 2019.
- **The Annual Scholarship Forum** is a special Forum that introduces scholarship recipients across all academic disciplines to the Graduate Studies Authority. The Forum convened during the second semester and provided an overview of the GSA's activities and services.

## **Scholarships and Research Grants**

In the current academic year, the Graduate Studies Authority will grant scholarships totaling NIS 26.5 million, in addition to the scholarships awarded by research students for competitive scholarships and grants, as well as scholarships from research budgets and other units. The total number of scholarships administered by the Graduate Studies Authority is NIS 35 million.

The following is a partial list of the competitive scholarships that were awarded to graduate and post-doctoral students in 2018/19:

- Azrieli Fellows Programs - NIS 1,117,000
- Mortimer B. Zuckerman STEM Leadership Program - NIS 925,000
- Israeli Government Ministries (not including VATAT scholarships) - NIS 1,176,470
- Rothschild Foundation Fellowship Programs - NIS 480,000
- Scholarships for Outstanding Students in the Arab Society - NIS 430,000
- Council for Higher Education (VATAT) for students in the periphery and promoting international programs - NIS 901,531