From the President

Playing it Right

Driving up the Ranks

Unraveling Genetic Mysteries

Mushroom Momentum

Contents

From the President 02

06 Academic Development
10 Research Authority
13 Administration and Physical Development
16 Budget
18 External Relations & Resource Development

22 Playing it Right
24 Driving up the Ranks
25 Unraveling Genetic Mysteries
26 Mushroom Momentum

28 Carmel - Haifa University Economic Corporation Ltd.
30 Graduate Student Authority
32 Office of the Dean of Students
34 International School
36 Student Union
38 The Younes & Soraya Nazarian Library
40 The Hecht Museum
42 Pre-Academic Programs (Mechina)
From the President

Israel is blessed with seven research universities with international reputations and we are proud to be counted among them. With this impressive achievement comes a responsibility to compete for necessary resources to advance research and teaching.

In addition to applied research, the University of Haifa’s uniqueness brings with it significant additional challenges that are no less strategically important to the future of the State of Israel.

The first is our location as the largest comprehensive research university in the country’s northern region. From the heights of the Eshkol Tower, we can see the borders of Lebanon and Syria to the north and the heart of Israel to the south. Recent developments favoring the country’s central region at the expense of weakening the north are troubling and pose a threat to the continued existence of this region. A strong comprehensive research university in the north is an essential and important condition for the prosperity of the region and its population.

The second stems from the unique composition of our student body, which most accurately mirrors Israeli society and is a microcosm of the Israeli mosaic. We provide higher education to the largest number of military and security officers who study side by side with Arabs, Druze and Christian students, as well as to the Haredi community and many international students who enroll in our academic programs. I am proud of the unique composition of the University and recognize the administrative and financial challenges it poses. I believe that it is imperative that the State of Israel create a shared Israeli identity that is necessary for all democratic societies, irrespective of political points of view.

I believe that our special pluralistic environment provides fertile ground for cooperation in learning and applied research among the diverse populations within our University. This cooperation will have the greatest impact on driving academic excellence within the walls of the University and on the long-term success of coexistence beyond our campus. The University of Haifa offers a paradigm demonstrating to Israeli society that we can achieve academic excellence and advance a shared Israeli citizenship and identity in an environment of tolerance and pluralism. Moreover, our pluralistic identity adds richer dimensions to our research and our graduates.

The University of Haifa is the youngest of Israel’s research universities and with all the pride in its achievements and strategic importance to the State of Israel, we are still striving to expand our fields of research and our number of researchers. In a world with limited resources, we need to focus on areas where we hold a relative advantage. In the coming years, we must accelerate the recruitment of outstanding researchers to strengthen our current areas of research and to cultivate up-and-coming disciplines where we offer a relative advantage.

In discussions that have taken place at the senior management level in the last few months, we have set a goal of increasing the number of researchers in areas we lead over the next four years from approximately 650 to 700. Recruiting the best researchers in their fields is a serious administrative and financial task that also requires rapid physical development, but it is well aligned with the University’s vision and the national initiative to bring Israeli scientists back home. I believe that another 100 outstanding researchers here in the north, with additional doctoral and master’s students and senior laboratory managers, will strengthen our academic excellence; contribute to knowledge development within Israel and the world; allow us to increase the number of foreign students; strengthen the northern region; and lead to the University becoming an example of excellence and tolerance. Accomplishing this will require a first-class management team and raising funds from all potential sources in and outside the University. Above all, we will need to adopt this vision and seek out every potential partner within and outside the University. This is my first priority as president and as head of this impressive management team that I am honored to lead.

While academic excellence in research and teaching is our main mission, it is important to note that we made a number of decisions directly related to improving our atmosphere of tolerance and mutual respect for different cultures on campus. A new policy now mandates that the University logo appear in three languages: Hebrew, English and Arabic. In addition, the University calendar will now include all religious holidays in Israel. We also passed a resolution that classes will not be held on three holy days of the Muslim, Christian and Druze faiths – this without reducing the number of yearly study days.

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Dealing with the special challenges that face the northern region is one of our most significant undertakings. As a research university located in the northern region, we must act as a positive force for its development plans into motion. Over the last few months we have undertaken projects to increase the number of foreign students; strengthen the northern region; and lead to the University becoming an example of excellence and tolerance. Accomplishing this will require a first-class management team and raising funds from all potential sources in and outside the University. Above all, we will need to adopt this vision and seek out every potential partner within and outside the University. This is my first priority as president and as head of this impressive management team that I am honored to lead.

As a university, our primary reason for existence is excellence in research and teaching and advancing knowledge to be passed on to future generations. The University boasts many areas of research that are unique, outstanding and exciting. We must continue to focus on areas in which we hold a distinctive advantage. The awarding of two prestigious tenders to the University of Haifa by the Israeli government, which are unique, outstanding and exciting. We must continue to focus on areas where we hold a relative advantage. In the coming years, we must accelerate the recruitment of outstanding researchers to strengthen our current areas of research and to cultivate up-and-coming disciplines where we offer a relative advantage.

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Translating the Vision into Specific Tasks: Goal-setting in the Next Four Years

All branches of the University took part in senior management level discussions in recent months. The task was to define goals in the realm of academic development that are attainable yet ambitious: which areas we will earmark for accelerated physical development; which physical and economic resources will be required, and what funding sources will be utilized; which administrative procedures will need to be implemented in order to meet our goals; and what safeguards should be put in place in the event that we do not meet our resource milestones so as not to place the University at financial risk of not meeting its commitments. These efforts are designed to focus on academic areas in which we offer a distinct advantage, so that within the next five years, the University of Haifa will be clearly and strongly identified with them.

Discussions with the Planning and Budgeting and Committee (PBC)
The Council for Higher Education’s PBC allocates funding for higher education in Israel and its input is important to us. We held discussions with senior members of the PBC’s, under the direction of Prof. Manuel Trachtenberg, and presented our vision, our plan for strategic development, our distinctive advantages and the financial implications of our accelerated development plans.

We received positive feedback from the Committee and have taken into account a number of its recommendations. It appears that our efforts will result in increased student allocations to the University and support for building projects. The process with the PBC is ongoing. We did not expect that the PBC would be the primary funding source for our comprehensive plans, but the moral support was encouraging. (The Budget Section of this Report addresses this topic in greater detail.)

Academic Excellence

Academic excellence is the “raison d’être” for the University, but it also has significant financial implications because our achievements compared to other universities in Israel have a significant impact on our portion of the State’s higher education budget. Today, approximately 20% of the University’s budget is contingent upon our relative achievements in the research arena, as defined by the PBC’s funding model. The University of Haifa’s share of the higher education budget has increased consistently over the past years, and we are committed to accelerating this trend in the future.

While we can indeed be proud of our academic achievements, we must also invest considerable efforts in understanding how to improve the quality and output of our research. For the first time, this year we surpassed the allocated PBC quota for compensation. The number of students who want to study here — and especially the outstanding ones — is a reflection of the quality of our teaching as well as how our research is perceived by potential students and employers. These go hand-in-hand. The senior administration has discussed these issues in depth to better understand our strengths and weaknesses in attracting students, and what is the potential for increasing our student population without compromising admission standards. Here, too, we need to set clear goals for future growth within various departments, especially those that require no additional resources.

Resource Development

This is an area where I spend a significant amount of my time together with the Vice President for External Relations & Resource Development. Today, funds raised from donations represent about 9% percent of the University’s income, compared to 8% from last year, and we forecast a significant increase by the end of this year. Intensified efforts are underway to accelerate this growth. We have worked diligently to articulate our fundraising messages for current and potential donors, to set goals for our many worldwide friends associations, and to create a database that will allow us to track the results of these goals. Bolstering our fundraising efforts will also require investing additional resources to expand the network of employees in Israel and around the world. We will make these changes gradually as we succeed in raising additional resources. (The section on External Relations and Resource Development addresses these issues in greater detail.)

Students

Imparting knowledge to our students and increasing the number of graduates and their academic achievements are among our foremost goals. It also carries the greatest economic significance for us and our ability to grow. Today, 67% of our budget is based on the number of students (PBC allocations and tuition fees). In recent years, the University of Haifa has maintained its share of students relative to other research universities; however, universities overall have lost many students to colleges.

In recent years, fewer students have enrolled for BA degrees, while the number of graduate students rose. I am pleased to report that this year we reversed the downward trend in the number of undergraduate applicants, while continuing to increase the number of graduate applicants. For the first time, this year we surpassed the allocated PBC quota for compensation. The number of students who want to study here — and especially the outstanding ones — is a reflection of the quality of our teaching as well as how our research is perceived by potential students and employers. These go hand-in-hand. The senior administration has discussed these issues in depth to better understand our strengths and weaknesses in attracting students, and what is the potential for increasing our student population without compromising admission standards. Here, too, we need to set clear goals for future growth within various departments, especially those that require no additional resources.

Physical Development

This year the University continued to address the acute shortage of space on campus. We are working to accelerate our physical development projects in order to accommodate the addition of new faculty members, the increased number of graduate students, and the increase in existing and newly launched academic programs. These plans will provide short-, medium- and long-term solutions for the construction of classrooms and laboratories, the establishment of research institutes and research centers and the construction of administrative offices that support research and teaching. The University’s physical development strategy requires a program that will include construction of an additional 25,000 square meters over the next four years. Most of the resources required for this project focus on building an infrastructure for natural sciences, including Mediterranean Sea research and a new facility to house the Faculty of Social Welfare and Health Sciences. (The Physical Development Section of this Report addresses this topic in greater detail.)

Management Processes

As the youngest university with ambitious goals for rapid expansion, we need to put in place management processes that will enable us to work faster and more efficiently. The first step in streamlining our organizational efforts requires all academic departments and administrative units to create an objective and accessible measurement system where each department defines and quantifies its goals. Without interdepartmental involvement, we will not be able to meet the ambitious challenges that stand before us.

In an effort to establish this cooperative culture, we have worked diligently to articulate our vision and the goals we are setting for the near future. In addition, we have defined the metrics that will allow us to measure University and department performance at any given time.

The University of Haifa stands at the threshold of a challenging and exciting future. I am excited to lead this University and I hope to live up to your expectations. We will do everything possible to meet our goals, including recruiting partners who will help us achieve the ambitious academic and social agenda that is so vital to the future of Israel and all who live here.

Students by Degree (as reported by the Central Bureau of Statistics) 2006-2013
Academic Development

Striving for excellence, in particular academic excellence, is the highest priority at the University of Haifa. To further this goal, the University sponsors a growing number of “units of excellence” in areas where it has a proven record of success or leadership, or in fields where the University wants to position itself as a leader.

The high level of academic excellence at the University of Haifa is reflected, among other areas, in the institution’s accomplishments during the past year.

Establishment of The Mediterranean Sea Research Center of Israel

In 2011/12, the University was chosen to lead the establishment of the Mediterranean Sea Research Center of Israel. With the establishment of this unique research center, the University is leading a group of other Israeli academic institutions (the Technion – Israel Institute of Technology, the Hebrew University of Jerusalem, Bar-Ilan University, Ben-Gurion University of the Negev, the Weizmann Institute of Science, the Geological Survey of Israel, and the Israel Oceanographic and Limnological Research Center).

The Center will serve as a national and international multi-disciplinary research center, in cooperation with government ministries and local industry, providing knowledge and recommendations regarding marine and petroleum studies in Israel. The main areas the Center will focus on include improving the infrastructure required for marine research; encouraging multi-disciplinary collaborations; cultivating academic and research staff, as well as curricula, in the marine sciences field; and expanding national information repositories on the subjects of marine science and energy development.

Currently formulating its operations, the Center will have the most advanced, cutting-edge facilities and research equipment that exist, including research ships, robotic submarines for deep-sea diving, and special research labs equipped with state-of-the-art instruments and computer hardware and software.

The Center’s staff will include top researchers and specialists in marine geology, biology, physics, and chemistry, studying a range of maritime research topics. The Center will strive to create tools for optimizing the development and use of the treasures found in the Mediterranean, while protecting Israel’s national interests and supporting the formulation of a national maritime strategy.

The Israeli Center of Research Excellence (I-CORE) on Education and the New Information Society

Another impressive achievement that reflects the advanced level of academic and research activity at the University of Haifa is the selection of the University by Israel’s Planning and Budgeting Committee (PBC) to lead the Israeli Center of Research Excellence in the area of Education and the New Information Society. The newly established Learning In A Networked Society (LINKS) I-CORE will serve as a home for innovative research conducted by Center members in the field of educational technologies, as well as in such social sciences as communications, health and social welfare, information sciences, knowledge management and law. The selection of the University to lead this Center marks the University of Haifa’s leadership in this important multi-disciplinary field.

In the next five years, the Center will focus on three main areas: Developing a theoretical basis for the field; designing technologically advanced learning environments; and formulating guidelines for charting policy on a variety of subjects for a technologically challenged society.

Recruiting Staff Members

During the current academic year Israeli higher education has continued its positive trend despite the economic slowdown that has prevailed all over the world, including in Israel. The positive indicators are rooted largely in the increase in the numbers of academic faculty members, made possible by the new budgetary model used by the Planning and Budgeting Committee, which offers universities incentives to hire additional academic staff. The University of Haifa’s strategic plan incorporates the new PBC model as well as the strategic plan of the State of Israel to support returning scientists, calling for increased faculty hiring in order to bring the total number of faculty to nearly 700 within five years.

As part of the efforts to increase the research faculty, the University is recruiting returning scientists, and over the past seven years has absorbed more than 100 returning scientists in all academic departments. The Returning Scientists Program was made possible by support from the PBC, as well as generous contributions from Leon H. Charney, the Rothschild Caesarea Foundation, Paul and Herta Amir, the Rich Foundation, the Arkin family and others. In addition, an allocation from the regular University budget was earmarked for this project.

Internationalization

To support the positioning of the University as a leading international academic institution, increasing academic activities in the international arena has been designated a high priority for the next several years. As part of the intensive efforts, the University opened a number of new academic programs in English this year. In addition, the University signed cooperation agreements and launched collaborative research projects and exchange of academic staff and students with leading universities overseas.

International curricula development - Three international academic programs opened in the 2012/13 academic year and the University currently boasts a total of eight full graduate degree programs in English. Our goal is to reach 20 English degree programs as part of the five-year plan (by 2015).
Increasing the number of students who study in English in non-degree programs - The University also intends to increase the number of students in the International School – from 800 to 1,500 students per year as part of the five-year plan.

Increasing the number of students studying abroad - The University will expand and develop its international programs to offer more options for University of Haifa undergraduate and graduate students to study at selected overseas universities.

The Mindscape Program
This initiative aims to introduce every student to the concepts in thought and ethics the humanities provide. As of this academic year, all students are now required to take four humanities credits during their undergraduate studies. Students can choose from a variety of courses given by the faculty’s top lecturers.

Academic Support Programs
The Marketing and Recruitment Division of the University of Haifa concentrates, in one department, all of our efforts to offer high-level academic programs and recruit quality students.

The Division’s activities include launching University-wide advertising campaigns alongside specific campaigns for University departments; organizing recruiting programs for soldiers and high school students; assisting candidates who are new immigrants or come from disadvantaged populations into mainstream society. Members of the faculty, as well as students and administrative staff, are taking active roles in this project.

The Flagship Project
The Flagship Project is a partnership between the University of Haifa and the community to promote solidarity and fight social exclusion. An interdisciplinary initiative of the Israeli Council of Higher Education, the Project aims to promote social responsibility and forge closer ties between the academic world and the community. This new venture, which is being implemented for a second year, more prominently at the University of Haifa than in other Israeli academic institutions, combines teaching and practices specially designed to encourage the integration of disadvantaged populations into mainstream society. Members of the faculty, as well as students and administrative staff, are taking active roles in this project.

New Programs for Graduate Studies
The University of Haifa opened four new graduate studies programs this year: a multidisciplinary program in Gender and Women's Studies in the Faculty of Humanities; a program specializing in literary editing and translation through the Department of Hebrew and Comparative Literature; programs offering specializations in law and society, rehabilitation, and in the study of crime and delinquency through the School of Criminology; and Modern Middle Eastern Studies in the Faculty of Humanities; a program specializing in literary editing and translation through the Department of Hebrew and Comparative Literature; programs offering specializations in law and society, rehabilitation, and in the study of crime and delinquency through the School of Criminology; and Modern Middle Eastern Studies. In addition, three new International MA programs opened in various academic departments: Holocaust Studies; Maritime Civilizations, and Art Therapy.

In addition, this year we received authorization for the opening of the School of the Arts, which includes interdisciplinary connections between the creative arts, music, and theater departments.

The Unit for Computer-Mediated Instruction
During the 2012/13 academic year, the Unit for Computer-Mediated Instruction continued to promote, expand and strengthen the University of Haifa’s online instruction system, with the assistance of the Computing Department, along with the library and other University departments.

The University of Haifa has made integration of interactive teaching methods one of its goals. This year some 40 fully online courses were made available, along with 2,500 partially online offerings.

The range of services offered to the teaching faculty by the Unit continued to expand during the 2012/13 academic year, and the following resources were added:

- Online Internet-based courses in real time
- Integration of multimedia elements into teaching
- Recorded classes
- Completely online, asynchronous courses
- Online exams
- Online forms for teaching and research
- Rector’s report

University of Haifa Press
Dr. Uriel Abulof is the winner of the 2012 Bahat Prize for his manuscript “Living on the Edge: Mortality and Morality in Zionist Discourse.” The NIS 40,000 prize, awarded by the Professor Yaakov Bahat Fund and the University of Haifa Press, is named for the founder of the Department of Hebrew and Comparative Literature at the University of Haifa.
The Research Authority’s main mission is to help our scientists and scholars maximize their research potential through research funding from both national and international sources. The Authority’s core tasks are to promote high-quality research and to provide our faculty members with optimal support and encouragement as they compete for successful grants.

The University of Haifa continues to attract top-ranking young researchers who bring with them the cutting-edge science they acquired during post-doctoral periods at leading universities abroad.

A new initiative over the past year that has already proven highly successful are the invitations to new faculty members to present their plans and expectations to the Research Authority’s staff, and to discuss possible ways to obtain research funding. A direct result has been the growing number of faculty members who are actively applying to the FP7’s Marie Curie Program.

Grants for innovative and groundbreaking research

Innovative, groundbreaking research, together with a team of active researchers with outstanding achievements, has been and continues to be decisively influential factors in the University’s research success. These factors were reflected in 2011/12 as part of the projects supported by the EU’s Seventh Framework Program for Research (FP7) and the Israel Science Foundation (ISF). One of these projects involves participation in the I-DREAM consortium. Dr. Dror Angel, of the Marine Culture Research Department and the Leon Recanati Institute for Maritime Studies, ensured the University’s participation in this consortium of 14 organizations working together to develop smarter and more ecological European marine aquaculture, one of the most important industries in Europe. The University of Haifa’s funding from the consortium totals some 500,000 EU.

Establishment of new research centers

The Research Authority encourages the establishment of new research centers, in particular where the synergy created by interdisciplinary approaches promises to result in innovative cutting-edge science.

In 2011-2012 we were able to inaugurate the following:

> The Kadas Green Roofs Ecology Research Center
> The Emili Sagol Creative Arts Therapies Research Center
> The Center for Standards in Health and Disability (UCSHD)
> The Interdisciplinary Center For the Broader Application of The Genizah Research
> The Cheryl Spencer Center of Nursing Research
> The Center for Spatial Information Systems Research

Measurement Process

The successful pursuit of innovative cutting-edge science is the one paramount factor that propels the University of Haifa as a major research university and underpins its international reputation. As a main tool in our permanent efforts to improve the University’s research performance, the Research Authority’s measurement process includes the following parameters: the national research model, submission of grant proposals (total number and success rate), and the effective administration of individual research projects and research institutes and centers. Through optimal data gathering and appropriate performance criteria, our enhanced ability to analyze results will enable us to identify problems and spot system failures the moment they occur, set out new objectives, and locate the appropriate tools and resources for improved management and operation.

President’s Report | Research Authority | 11

Prof. Michal Yerushalmy
Vice President & Dean of Research
Cooperation with the Israel Science Foundation

Dr. Deborah Cvikel, Department of Maritime Civilizations received NIS 910,000 for her project entitled: “The Akko tower shipwreck and its significance for the maritime history of Acre, based on underwater archaeology.” She also received NIS 1 million to purchase unique and expensive underwater equipment for her research. Dr. Shlomo Wagner, Department of Biology received NIS 1,300,000 for his project entitled: “Neuronal mechanisms underlying social recognition memory.”

Prof. Kobi Rosenblum, of the Sagol Department of Neurobiology and Ethology, received NIS 880,000 for his project entitled: “The role of miRNA in taste memory consolidation in the gustatory cortex.” The project promises to lead to a better understanding of the basic molecular mechanisms underlying the formation of long-lasting memories.

Cooperation with the EU

In September 2012 Professor Michal Yerushalmy met with two key people in the General Directorate for Research and Innovation in Brussels, introducing them personally to the University of Haifa and our research strengths: Dr. Isi Saragossi, who heads the International Collaboration Unit and Mr. Philippe Keraudern, Deputy Head Social Sciences and Humanities.

Equally important, on behalf of ISERD, Professor Ofira Ayalon, of the Natural Resources and Environmental Management Department, was elected to join the EU FP7 Committee for Environment, and the Research Authority’s Director, Dr. Sharon Link, the EU FP7 Committee for Security, as expert representatives for the Israeli science community.

Thus the University of Haifa has a finger on the pulse in Brussels enabling us to make an impact during the crucial transition period from the current FP7 program to Horizon 2020 scheduled to start in 2014.

International Cooperation Agreements

During 2011-2012 the University signed 9 new cooperation agreements with universities abroad. Doshisha University, Japan, joins the list of our partner universities in the Far East, while Masaryk University, Czech Republic, highlights our growing research ties with Mid-European countries. The Institute for the History of Material Culture of the Russian Academy of Sciences in St. Petersburg extends our active contacts with Russian universities, while the new research cooperation with Jena’s Friedrich Schiller University underscores the growing international reputation of our Bucerius Institute for Contemporary German History and Society.

Taken together, the continuing efforts and successful achievements of the University’s research faculty to produce state-of-the-art science are again this year clearly reflected in a 9% rise in funding rates as reported to the Planning and Budgeting Committee of the Council for Higher Education.

Global U8 Consortium (GU8)

A central facet of our overall endeavor to enhance the University’s science profile is the networking we maintain with other academic institutions and research centers in Israel and abroad. A main asset here has been the University’s active involvement in the Global U8 Consortium, or GU8.

During September 2012 the GU8 held a highly successful joint Scoping Workshop on Ocean Sciences and Marine Biotechnology, at Xiamen University, China. The initiative had been Professor Michal Yerushalmy’s, who currently chairs the GU8’s Joint Research Committee, and the University of Haifa was represented by Dr. Dror Angel and Dr. Michael Crom. Also taking part were Inha University, South Korea, and Le Havre University, France.

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Physical Development

This year the University continues to focus on physical development and find solutions for the acute lack of space on campus. In light of increased awareness and activities dedicated to separating new buildings, the opening of new programs that require laboratories and clinics.

The University of Haifa’s physical development strategy reflects its academic growth. A primary challenge the University faces has been in recent years the result of a decision by the Council of Higher Education’s Planning and Budgeting Committee (PBC) to lower the University’s ratio of lecturers to students from 1.30 to 1.23 within five years. Accordingly, we plan to hire an additional 100 faculty members and build new laboratories, particularly in the fields of natural sciences, marine sciences, and social welfare and health sciences.

In light of the academic challenges, a needs survey was conducted. Results indicated that to support the University’s academic development, it is necessary to invest approximately NIS 300 million in physical development, including 25,000 square meters of new construction, over the next four years. The new plan will allow for new academic programs, additional classroom construction, establishment of new research facilities and research centers, and workshops for administrative staff to support research and teaching.

Short-term planning

In light of the difficulty of raising funds for a new building, last year we launched a project called “Renovating Space for Academia III.” The project aims to maximize use of existing spaces by rezoning public areas, converting classrooms to laboratories, transferring administrative units, and more. The project will meet the needs of researchers hired between 2011/12-2013/14, and will renovate approximately 5,000 square meters of campus space, while adding 25 new laboratories, at a cost of NIS 23 million.

The second phase of the project, “Renovating Space for Academia III,” began this year and is currently in the planning stage. This stage of the project will meet the needs of new researchers and faculty members starting in the 2013/14 and includes converting classrooms into research laboratories, building alternate classrooms (as substitutes for converted classrooms) in the library and in public spaces, and preparing offices for researchers in public spaces (in the outdoor parking lot and the Education and Sciences building).

In all, the plan includes the preparation of 21 offices, 7 classrooms, and 11 laboratories at an overall cost of approximately NIS 12.5 million. The project, currently in the planning stages, has already been approved by the Physical Development and Finance Committees.

Medium-term planning

In light of the accelerated development of studies in the field of social welfare and health sciences, there is an urgent academic and physical need to build a new complex for the Faculty of Social Welfare and Health Sciences. Recently, plans were updated and now consist of a new 13,000 square meter complex with 4,000 square meters of parking space. The estimated cost of the entire project totals approximately NIS 170 million. A subcommittee established for the project has decided that, due to budgetary restrictions, the project will be implemented in stages. In the first stage, one building (out of four) with approximately 4,000 square meters of space will be constructed at a cost of approximately NIS 56 million.

In an attempt to obtain funding for this effort, a fundraising proposal for the project has been submitted to the PBC development competition.

Several additional University projects are dependent on receipt of funds, including the addition of two stories to the Natural Science Building (the multi-purpose building), the addition of two stories to the Rabin Building complex, the construction of a new building for the Faculty of Law, and the construction of a new classroom and office building next to the Jacobs Building.

Long-term planning

To meet the needs of the academic development anticipated in coming years, and due to the fact that the building rights in the current master plan have been exhausted, a new master plan has been prepared and approved by University institutions. The new plan provides for an additional 154,000 square meters of construction. Following the approval of the master plan, a new detailed zoning plan must be prepared to cover construction (additional buildings, dormitories, sports and recreation facilities), transportation (vehicle and pedestrian traffic routes, additional parking, a cable car, entrances, intersections and traffic circles, public transportation stops), and landscaping (open space planning, connecting different levels of the campus, and landscape planning). The zoning plans must be approved by the various building boards, the Ministry of Interior, and the Ministry of Environmental Protection.

In addition, the University, in cooperation with the Haifa Municipality, is expanding the Port Campus. This project will add classroom and workshop space for graduate students in the creative arts.

In the wake of the Carmel Forest fire, the University drew up plans, in cooperation with the Mount Carmel National Park Authority and the Haifa Municipality, to create buffer zones and make other necessary adjustments to increase fire safety around the University in areas bordering the woods. Portions of the plan have already received approval, while others are still in the planning stages. The budget for the project has been estimated at NIS 4.66 million, of which NIS 3.5 million will be funded by the PBC.

The project aims to maximize use of existing spaces by rezoning public areas, converting classrooms to laboratories, transferring administrative units, and more. The project will meet the needs of researchers hired between 2011/12-2013/14, and includes converting classrooms into research laboratories, building alternate classrooms (as substitutes for converted classrooms) in the library and in public spaces, and preparing offices for researchers in public spaces (in the outdoor parking lot and the Education and Sciences building).

In all, the plan includes the preparation of 21 offices, 7 classrooms, and 11 laboratories at an overall cost of approximately NIS 12.5 million. The project, currently in the planning stages, has already been approved by the Physical Development and Finance Committees.

Quality Assurance System and the Green Campus

The University of Haifa views quality as an exceedingly significant value and an integral component of its organizational culture. Accordingly, this year the University added an additional international quality standard to its operations with receipt of certification for the ISO 14001 standard for environmental management. This is in addition to the two standards already approved for the University, the OSHAS 18001 standard for occupational health and safety, and the ISO 9001 standard of quality service for which the University’s administrative units were certified.

The University was recognized in 2008 as a ‘Green Campus’ and over the past several years has spearheaded the issue of environmental quality. The University of Haifa is the only university in Israel certified for the international environmental management standard and the only one awarded the Gold Mark from the Standards Institution of Israel. This year the University received a citation from the Israeli Minister of Environmental Protection for reporting emissions of greenhouse gas.

Annual Fuel Costs in Dormitories (NIS)

<table>
<thead>
<tr>
<th>Year</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>31,490</td>
<td>33,700</td>
<td>31,330</td>
</tr>
<tr>
<td>Total</td>
<td>69,115</td>
<td>83,000</td>
<td>69,150</td>
</tr>
</tbody>
</table>

Savings and Efficiency

During the course of the year, improvements were made to diesel fuel boilers used to heat student residences. As part of improvements made to the system, the University replaced old pumps and pipes, chemically rinsed pipe fittings of solar collectors, and replaced insulation.

Additionally, the University began a daily control regime to monitor the system’s hours of operation. These improvements promise to enhance the maintenance of water temperature over time while downsizing boiler operation and the use of diesel fuel. Savings realized by these improvements this year amounted to NIS 720,000.

In light of increased awareness and activities dedicated to separating waste and paper recycling, the University has placed a paper collection bin in each of its offices as well as numerous bins across University grounds.
The regular budget for the 2012/13 academic year is NIS 800 million, compared with actual expenditures of NIS 766 million for the 2011/12 academic year. The 2012/13 budget reflects the academic development and the University’s increased activities over the past several years, as shown in the graph.

The University budget for the 2012/13 academic year is balanced after a planned use of investments designated for pension and compensation in the amount of NIS 15.5 million, utilization of University funds in the amount of NIS 12.5 million for one-time projects and in the amount of NIS 17.5 million to balance the budget.

The 2012/13 budget is based on 17,600 students, including 16,400 undergraduate and master’s students, and 1,200 doctoral candidates.

The income side of the 2012/13 budget includes a NIS 492 million allocation from the Council for Higher Education’s Planning and Budgeting Committee (PBC), as opposed to 2011/12’s allocation of NIS 467 million. From this allocation, NIS 143 million is a result of the research model and NIS 283 million is a result of the teaching model. The graph shows the increase in PBC allocations over the past several years. The PBC allocation represents 61% of the University’s budget, a number that has remained nearly constant over recent years.

The regular budget includes ongoing academic activities for research and teaching related to degrees recognized by the Council for Higher Education.

The total donations budget for 2012/13 is NIS 75 million (approximately 20 million dollars) 2012/13, of which NIS 13 million is allocated to the regular budget and the remainder to research budgets, closed dedicated budgets, and restricted funds. In 2011/12 the total income from donations was NIS 69.1 million (some 17.8 million dollars), of which NIS 14.2 million were allocated to the regular budget and the remainder to research budgets, closed dedicated budgets, and restricted funds.

Scholarships
The funds allocated for scholarships from the regular budget in 2012/13 total NIS 32.8 million. Scholarships given from the regular budget in 2012/13 totaled NIS 32.5 million. Scholarships given from the regular budget in 2012/13 totaled NIS 32.8 million. Scholarships given from the regular budget in 2012/13 totaled NIS 32.5 million. Scholarships given from the regular budget in 2012/13 totaled NIS 32.8 million. Scholarships given from the regular budget in 2012/13 totaled NIS 32.5 million.
Developing the Resource Development Infrastructure

Our efforts to expand resource development initially focused on our Friends Associations in Israel and the United States, areas that offer the highest fundraising potential. At the same time, efforts are being made to bolster resource development in Europe (UK, Germany, and Switzerland) and to re-examine our campaigns in South America. In the next year, we need to reconsider how to develop new fundraising markets, such as the Far East and Australia.

University of Haifa’s mission. A fundraising presence was established in Los Angeles, Chicago, Philadelphia, and Boca Raton, Florida. This year, there are plans to open an office in New England.

Based on our projections, during the first year of this effort the University will at least double its return on investment. In the second year, funds raised from these areas are expected to double. By the third year, we project that strengthening the local fundraising infrastructure will enable the Division to secure major donations in these locations.

In addition, we decided to expand fundraising efforts in the Israeli Friends Association, by increasing the resource development staff; launching an alumni network; and expanding our circle of supporters in areas that include policy makers, academicians, and business and community leaders. These activities also include public relations events, collaborative efforts with commercial and community organizations, and more.

As a result of the intensive efforts of the Division, this year saw a 20% increase in the actual donations received by the University, despite the economic downturn in Israel and abroad. We improved our monitoring of the timely receipt of pledges, both at the University and in our Friends Associations abroad, and we continued to streamline the process by which donations from overseas are transferred to the University.

As a result of the President’s and Vice-President’s visits overseas, we received major pledges earmarked for research and academic activities. We have already secured approximately $10 million in new pledges this year, significantly increasing total future commitments to the University. These pledges, totaling approximately $37.5 million, up from $32.5 million last year, will enable the continued growth and development of a variety of research and teaching activities on campus.

The Division works intensively to raise funds for the University’s priority projects by initiating meetings with potential donors in Israel and abroad and cultivating new and existing relationships with friends of the University. These projects include The Mediterranean Sea Research Center of Israel; the Learning In a Networked Society (LINKS) Israeli Center of Research Excellence (I-CORE); the construction of new research labs, and student scholarships.

Mr. Amos Gaver
Vice President for External Relations & Resource Development

The Division of External Relations and Resource Development is dedicated to cultivating a network of Friends associations in Israel and around the world and establishing meaningful relationships with key individuals, organizations, and philanthropists who share the University’s vision.

The Division’s departments work closely together to support the strategic objectives defined by University management. These departments include the Department for International Resource Development and Donor Relations Management; the Projects Department, which prepares fundraising proposals, the Communications and Media Relations Department; and the Events and Visits Department. The External Relations and Resource Development Division also provides administrative and logistic support to the Board of Governors Meeting, which serves as the University’s acting Board of Directors.

The University’s President, Amos Shapira, assigns great importance to developing personal relationships with the University’s benefactors, and the Division assists him in attaining this goal, together with the Friends’ associations around the world.

The system also measures the media’s coverage of the University’s academic and public events, and activities of public interest that potentially affect fundraising efforts. To ensure an accurate and transparent measurement processes, data is gathered from Friends Associations in Israel and abroad. This provides additional insight as to which offices need to be strengthened based on the existing potential.

Additionally, we have implemented a quantitative evaluation system for relevant key performance indicators (KPIs). The system measures variables including identifying resource development potential by following up on leads concerning potential donors; meetings of the President, the VP, and the fundraising team; visitors hosted at the University; public relations and resource development events held; fundraising proposals submitted; pledges received; agreements signed; and actual donations received.

Expected Changes

Key Performance Indicators

Gifts and Pledges 2011/12 - 2012/13 (US $)

<table>
<thead>
<tr>
<th>Variable</th>
<th>2011/12</th>
<th>2012/13</th>
<th>% change</th>
<th>2011/12</th>
<th>2012/13 (forcast)</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total funds received</td>
<td>7,473,903</td>
<td>8,865,262</td>
<td>19</td>
<td>17,846,445</td>
<td>22,000,000</td>
<td>23</td>
</tr>
<tr>
<td>New pledges</td>
<td>4,118,150</td>
<td>10,676,408</td>
<td>159</td>
<td>10,322,242</td>
<td>15,000,000</td>
<td>45</td>
</tr>
<tr>
<td>Accumulative pledges</td>
<td>33,630,338</td>
<td>37,116,814</td>
<td>10</td>
<td>32,559,553</td>
<td>37,500,000</td>
<td>15</td>
</tr>
</tbody>
</table>

*Increase in donations is contingent upon significant investment in resource development.

Cumulative pledges

New pledges

Total funds received

Yearly Performance

Annual Performance

Accumulative pledges

Cumulative Performance (7 months)

Accumulative Performance (7 months)
Key Activities Over the Past Year

The Division stepped up its efforts to raise funds to build and renovate customized science laboratories and to support science research and returning scientists.

Sir Maurice and Lady Irene Hatter hosted a special evening in the UK in honor of Mr. Gerald Ronson, during which Mr. Ronson received the Carmel Award of Merit for his dedication to education. The proceeds from the evening were dedicated to the establishment of a research lab for the Faculty of Natural Sciences.

In another event in the UK, Dr. Sarit Larisch presented her research on ARTS, a groundbreaking approach to cancer treatment that selectively kills specific cancerous cells. At an event in Switzerland, Dr. Da’li Barkan presented her research on a unique model for studying the recurrence of metastatic breast cancer.

The Returning Scientists Program at the University of Haifa is part of an important national initiative that seeks to bring back outstanding Israeli scientists residing abroad and to reverse the “brain drain” of talented Israeli scientists. The program is supported by several of the University’s most generous friends including Paul and Herta Amir and Maurice Kanbar from the US, Dr. Joseph Chvika and Dr. Eyal Chvika of France and numerous friends in Switzerland, UK, and Germany also supported the initiative.

As in previous years, the Division made tremendous efforts to promote projects and programs at the top of the University’s fundraising agenda:

The Weiss-Livnat International Graduate Program in Holocaust Studies: This unique project is supported by the Israeli Friends Association and the Friends Associations in the US and Canada. The Canadian Friends Association organized a fundraising event whose proceeds were dedicated to the program, including a gift from the Azrieli Foundation.

The Mediterranean Sea Research Center of Israel: The national center for the study of the Mediterranean Sea comprises eight of Israel’s leading research institutions. The Center will focus on developing the scientific infrastructure required for marine research and educating a new generation of researchers and scientists. Following the selection of the University of Haifa as the founding university, the project is currently at the top of the University’s resource development priorities. To date, support for the Center has been raised from The Wolfson Foundation.

The Kadas Green Roofs Ecology Research Center: Green roofs are a rapidly growing, multi-disciplinary field of research and development around the world, yet have not received proper attention in many arid regions, including Israel. As part of the University of Haifa’s ecological “green campus” approach, last year we inaugurated the Kadas Green Roofs Ecology Research Center, which studies issues related to the use of green roofs as habitats to help maintain biodiversity in semi-arid environments. The Center brings together ecology experts, architects, and engineers who specialize in environmental issues. A unique research greenhouse was established at the University on the roof of the Hatter Student Building.

The Weiss-Livnat International Graduate Program: The University of Haifa is working in collaboration with the Israeli Ministry of Education and the Leo Baeck Education Center to establish Israel’s first KIPP-inspired school. Based on the US model, implemented successfully throughout the United States, the school will focus on disadvantaged communities and emphasize the teaching of tools for developing excellence. The goal of the school is to help students grow into university graduates who will contribute significantly to society. To promote this project, the University reached out to the various Friends Associations and ASUH has already offered its support.

The Knowledge is Power Program (KIPP): The University of Haifa is partnering with the Israeli Ministry of Education and the Leo Baeck Education Center to establish Israel’s first KIPP-inspired school. The program is supported by various friends and donors from abroad, such as the Teitel Trust and the Myers Foundation in the United States and the Polonsky Foundation in the UK. Students from the Druze community also participate in academic leadership programs, supported by the Cape Gate Scholarship Program of South Africa and the Kathryn Ames Foundation and the Myers Foundation in the United States.

The Division is also developing resources this year to support the new graduate degree programs initiated by the International School; the Learning In a Networked Society I-CORE initiative; and the School of the Arts.

As with every growing, dynamic organization, the University also requires significant resources for its physical development and the construction of new facilities. In this respect, the research labs previously mentioned are of critical importance to the continued success of the University and its researchers. In addition, the Faculty of Law needs a new facility to house its teaching staff and growing student body. The proposed plans for building a new complex for the Faculty of Social Welfare and Health Sciences are also of vital importance to the future growth of this area of excellence.

We are committed to helping the University of Haifa realize its vision and secure its place as a leading institution of higher learning and research in Israel and abroad.

Looking to the Future

The Israeli Mosaic lies at the very heart of the ethos of our University, and a variety of University programs that focus on this theme are supported by donors and organizations around the world. The University’s German Friends Association supports a community leadership program for Jewish and Arab students, as well as the Werner Otto Scholarships, which provides financial and personal assistance to Arab women studying towards Masters and Ph.D. degrees.

Several programs for students of Ethiopian descent are supported by various friends and donors from abroad, such as the Teitel Trust and the Myers Foundation. Several programs for students of Ethiopian descent are supported by various friends and donors from abroad, such as the Teitel Trust and the Myers Foundation. Several programs for students of Ethiopian descent are supported by various friends and donors from abroad, such as the Teitel Trust and the Myers Foundation.
As a member of the Haredi community, Weiss knows well the community’s structure and its special needs in the context of expanding employment opportunities. Due to the sharp decrease in donations to schools and significant reductions in government benefits, members of the Haredi community have begun to explore “non-traditional” career options. The need to find new jobs and places of work poses an enormous challenge to the Haredi community, as does the necessity to develop appropriate training courses and adapt work settings to suit the community’s unique needs.

The University of Haifa has taken upon itself a leadership role in educating a new generation of ultra-Orthodox students who can successfully integrate into the Israeli labor market, improve their lives and advance the entire Haredi community. To this end, the University has created specially tailored programs that are being offered at the Academic College of Bnei Brak (MIVCHAR). The proposed curriculum is designed to equip participants with academic and practical tools that will enable them to integrate in the labor market, and set them on the path to achieving financial independence.

As part of her academic workload, Prof. Weiss teaches both at the University of Haifa’s main campus and at the MIVCHAR Academic College of Bnei Brak. Since its inception in 2004, Weiss has served as a lecturer at MIVCHAR in the Occupational Therapy undergraduate studies program.

Many would consider computer games and video game consoles a waste of time. They are sometimes accused of being a source of mindlessness and even violence. Contrary to this popular belief, Prof. Tamar Weiss from the University of Haifa’s Department of Occupational Therapy, celebrates the use of virtual reality as a rehabilitation tool and pays special attention to its less commonly recognized strengths.

Virtual reality involves using computers and multimedia to simulate real environments. Users interact with displayed images, and feel “present” in the simulated settings. Conducting interdisciplinary international research projects, the LIRT researchers are showing that VR is a unique and powerful rehabilitation tool. “VR has become a natural extension of other assistive technologies that help people with disabilities to become more independent,” explains Prof. Weiss.

Together with Dr. Eynat Gal, a colleague from the Department of Occupational Therapy, Dr. Weiss and LIRT researchers used collaborative technologies to help children with autism communicate and interact. Presented as a game on a tabletop touch screen, this activity works only if two children play together, thus ‘forcing’ interaction. Through the game, the children in the study began to establish eye contact, smile at one another and initiate conversations. They also ceased some of the repetitive behaviors typical of autism. The effects of the game appeared to continue after the study.

In another study using a similar technology and funded by the Trento-CRI Research Agreement and the Israel Science Foundation, a group of Palestinian and Jewish youth learned negotiation skills and began to develop possible solutions for the Israeli-Palestinian conflict. Conducted together with University of Haifa colleagues Prof. Zvi Eskoovs and Dr. Chaya Koren and Bruno Kessler Foundation researchers Prof. Olivier Stock and Dr. Massimo Zancanaro, the study showed that those who disagreed with the narration being displayed on the screen could raise other narrative solutions in a respectful manner. “Ultimately, the users collaborated in building their stories together and began to shift their attitudes toward one another,” explains Prof. Weiss.

“VR technologies are swiftly developing, and I aim to keep track of what’s out there,” says Prof. Weiss. “I want to see if they can be adapted, and use them to make the real world of our target populations into a much better place.”
Driving up the Ranks

Maj. Gen. (res.) Dan Harel shares his thoughts on the transition between army and politics and how the University of Haifa Ofakim Honors Program gave him a solid foundation for building his career.

The University of Haifa Advantage

At the University, Harel was exposed to a holistic approach within a number of disciplines. “This gave me tools to approach different areas, and a wide spectrum of project management methods. Even while studying at the University of Haifa I was able to use these tools, as I was serving as battalion commander in the IDF at the same time. Much later, I also applied what I had learned in my capacity as deputy chief of the General Staff of the IDF. Then, as director general of a government ministry, I employed the same broad approach while supervising large-scale activities,” notes Harel.

“I studied in the School of Political Sciences as part of the Ofakim honors program, which let me choose the subjects on which I wanted to concentrate. In addition to the political science studies at the University of Haifa, I was able to take additional courses at other universities in Israel. This arrangement gave me great academic freedom, which suited me very well. I began my university studies relatively late in life—I was over 30 and already a husband and father. I knew what I wanted to focus on, and the Ofakim program let me do this,” he recalls.

A Special Affinity for Haifa

Harel was born and raised in the city of Haifa, and went through school and university there. “I love the city of Haifa. It is beautiful and green, and has a special atmosphere and urban culture. Haifa has an open and easy-going feel. People there think differently,” he notes. If Harel were to send a message to University of Haifa students, it would be to “do their best to fulfill their potential, and be aware that the University provides the best tools to do this. It is truly a springboard to future success and satisfaction.”

Unraveling Genetic Mysteries

With a specialization in evolutionary genetics, Dr. Yarin Hadid has dedicated her life’s work to gaining a better understanding of the genetic abnormalities that are prevalent within the Druze community.

Dr. Hadid, who recently earned her doctorate at the University of Haifa’s Institute of Evolution, is among the few Druze women to pursue a career in medical research. Born in Dalat El Carmel, she grew up against the backdrop of the cultural and ethnic diversity of Haifa and its northern region. Her multicultural surroundings proved to be a source of inspiration for her scientific work.

Hadid’s doctoral studies focused on identifying specific genetic characteristics within the Druze community. “Interruption among Druze extended families is a widely accepted practice,” explains Hadid, and the similar genetic profiles result in a higher rate of genetic abnormalities and birth defects.

Dr. Hadid has a personal investment in her research, as members of her own family were born with chromosomal abnormalities. She is driven by a desire to help them overcome the difficulties triggered by their genetic makeup. Her research aims to identify the genes linked to the formation of specific defects, which will eventually lead to their cure.

Dr. Hadid believes that the future of medicine lies largely in the development and progress of genetic research. “As we are able to discover and identify more genes, we will improve the ability to cure a greater number of diseases,” notes Hadid. “I decided to specialize in genetics so that I could make a significant contribution to humanity and specifically to my community.”

Hadid sees her academic activities as a natural extension of her personal mission. She serves as a role model for her friends and other young women in the Druze community. She is a strong advocate of higher education for Druze women, and contends that expanding intellectual horizons is key to the continued cultural and economic development within the Druze community.
We know they are good for flavoring sauces, inducing psychedelic trances, and sheltering elves from the rain. But can mushrooms cure cancer? It could well be, says University of Haifa Professor of Biology Fuad Fares, who has found a mushroom species that shows great promise in directly preventing and treating malignant growths.

Born and raised in the Northern Galilee Druze village of Hourfeish, Fares was recently appointed Head of the Druze Section of the Jewish-Arab Center at the University of Haifa, with the goal of promoting academic achievement amongst Druze researchers and students at the University.

Focusing his research on identifying and developing natural plant-derived substances as cancer therapies, Fares teamed up with a world-renowned medicinal mushroom expert, Prof. Solomon Wasser of the University of Haifa’s Institute of Evolution. Together with doctoral candidate Lital Sharvit they selected and examined 35 types of medicinal mushrooms. Using a technology they developed in-house, the researchers inspected the mushrooms’ qualities for use in prevention and treatment. They found that the Cyathus striatus species (of the Basidiomycetes phylum), endemic to Israel, proved the most effective cancer killer.

This species discharges a substance into its growing medium and Fares’s team took a low-molecular ethyl-acetate extract from it. They administered this extract into the growing medium of human cancer cells and also injected it to animals. The preliminary testing on human pancreatic cells and current animal testing is indicating that administering low concentrations of the extract which the researchers also found to be non-toxic significantly inhibits tumor growth, induces cell death, and destroys more than 90 percent of the treated cancer cells.

Prof. Fuad Fares is founder and chief scientific officer of a biomedical start-up, PROLOR BIOTECHNOLOGY, which has genetically engineered a platform that prolongs the lifespan and efficacy of therapeutic proteins in treating deficiencies. For example, the technology can enhance the longevity of the human growth hormone, to be injected once a week instead of daily for patients with growth failure. He also established the Molecular Genetics Laboratory at Carmel Medical Center.

Having reached an advanced stage in this project, Fares has applied for a patent on the mushroom strain, the extract prepared from it, and the treatment process. He is working with Carmel Haifa, the University’s technology transfer arm, for further development.

Fares and his team in the Faculty of Natural Sciences’ Department of Biology the only scientists known to be working on Basidiomycetes worldwide are seeking to identify the molecular behavior of these substances. “Identifying the chemical structure of the active compound and characterizing its molecular mechanism of action may be helpful in developing new strategies for cancer treatment,” Fares explains.

“Nothing is more compelling to me than finding a cure for cancer,” he says. "Nothing is more compelling to me than finding a cure for cancer."
Carmel - Haifa University Economic Corporation Ltd.

Research Agreements
In 2012, 13 research and consulting agreements were signed, as compared to 5 the previous year. Among them was a research agreement signed with the Israeli company Optica Amuka, which focuses on examining fatigue experienced while viewing stereoscopic displays. This agreement was based on previous research conducted by Prof. Joel Norman and Dr. Peerly Setter of the Ergonomics and Human Factors Unit in the University's Institute of Information Processing and Decision Making (IPDM). In addition, agreements were signed with Innovative Advanced Development, Ltd. (IADI) and with Mycolivia, a company developing medicinal mushroom products based on fungi research being conducted at the University's Institute of Evolution. Another agreement was signed with Biogen for joint research to be carried out with Prof. Sara Rosenblum to assess the effects of drug treatments on multiple sclerosis (MS) patients.

Licensing Contracts
This year, Carmel signed two licensing contracts in exchange for a percentage of sales revenues. One such agreement was signed with Yessod Ltd. licensing the publication and distribution of a first-of-its-kind diagnostic tool in Arabic. Developed by Prof. Zvia Breznitz and Prof. Michal Shany, the new system is designed to detect disabilities in such areas as reading, writing, and language use, as well as associated cognitive and language-related disorders. A second agreement was signed with Maddak Inc. for the sale of DoLat kits. Developed by Prof. Sara Rosenblum and Prof. Naomi Josman, these kits serve as diagnostic tools for assessing and evaluating children’s daily functioning.

Collaboration Agreements
In 2012, Carmel signed 13 collaboration agreements, 7 more than it signed the previous year. Among those finalized last year was an agreement signed with three other institutions – Technion-Israel Institute of Technology, New York University, and Wilfrid Laurier University – concerning the sharing of intellectual property.

Income vs. operational expenditures
Thousands NIS

Patent Activity
Number of Patents
Cost (NIS Thousands)

Patent promotion
During 2011/12, Carmel redoubled its efforts to strengthen the innovation portfolio of University researchers. A large number of patent applications progressed to advanced approval stages. In addition, Carmel submitted eight new provisional applications for patents.

In addition to these efforts, Carmel led several new initiatives, including the hosting of the startup accelerator program, Startupbootcamp, a revolutionary European program. Startupbootcamp focuses on technological solution providers in the areas of Internet technologies and digital media. The program was launched in Israel by Sushi Venture Partners, the British Venture Capital Fund.

Overall income for Carmel in 2012 totaled 1.59 million NIS, up from approximately 929,000 NIS in 2011.
The Graduate Studies Authority oversees all matters related to advanced degrees, from the admissions stage to completion and conferral of degrees. The Graduate Studies Authority works closely with the Rector’s Office and the various schools, faculties, and study programs, and serves as fertile ground for nurturing creativity. The Authority also encourages intellectual growth, creating an engrossing environment of discovery and innovation.

The Graduate Studies Authority does its utmost to develop and strengthen the ties between students, faculty, and the University, while integrating academic excellence and social awareness on a mixed campus.

The Graduate Studies Authority is responsible, among other things, for setting admissions requirements and academic standards for conferral of Master’s and PhD degrees. The Authority oversees the implementation of the bylaws and regulations related to graduate degrees in practice. It is the only department in the University entrusted with distributing scholarships, grants, and funding for expenditures incurred by graduate students conducting projects and research studies.

Attitude Survey
For the first time, an attitude survey was conducted this year among University of Haifa doctoral students and graduates. The findings of the survey, designed to examine a broad range of views and attitudes, pointed to an impressive level of satisfaction among the sampled population. The decision to attend the University of Haifa reflects a combination of variables, such as the reputation of the academic advisor; the range of activities and services offered at the University; and the high level of professional service provided by the Graduate Studies Authority staff. According the survey, average satisfaction is rated at 4.44 out of 5 among students and 4.21 out of 5 among graduates.

Scholarships and Financial aid
The Graduate Studies Authority’s total scholarship budget for 2012/13 totals NIS 21,799,600, compared to NIS 21,710,000 from the previous year. From this budget, assistance was provided to more than 1,200 doctoral students – 200 of whom are in advanced stages – and close to 8,000 master’s students – 2,400 of whom were on tracks requiring a thesis.

In addition, the Graduate Studies Authority awarded 788 scholarships from researchers’ budgets in accordance with scholarship criteria, totaling NIS 9,677,370. In light of the growing trend of encouraging students to apply for outside funding, the Graduate Studies Authority assisted 40 scholarship recipients this year who won grants from various organizations.

New Research grants
The Israeli Ministry of Science and Technology - Cybernetics and advanced computing grants: Doctoral student Rachel Aridor-Hershkoizt of the Faculty of Law won a grant of NIS 191,667 for her research on “Transforming Cyberspace into Secure Space: The Roles of the State and Web Intermediaries.” Her advisor is Prof. Niva Elin-Koren. Master’s student Tomer Ashur of the Department of Computer Sciences won a grant of NIS 50,000 for his research on “Safe Evaluations for Selected Primitives in the Area of the Symmetric Key.” His advisor is Dr. Orr Dunkelman.

International Agreements
This year four agreements for joint doctorates with foreign universities were secured: Katholieke Universiteit Leuven (Belgium) and Universidad de los Andes (Colombia), as well as two others in the signing stages.

Population sampled includes students and graduates

Doctoral student Anat Aish of the Department of Marine Geosciences was awarded the Levi Eshkol Scholarship for NIS 243,055 for her research on Foraminifera indicators of sub-marine slides in the northern Gulf of Aquaba, supervised by Prof. Zvi Ben-Avraham, Dr. Revital Bookman and Dr. Ahuva Almog-Labin.

International Agreements
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The Office of the Dean of Students is the main authority in the University acting to ensure the welfare of all students, meeting a full range of personal, academic and financial needs, while maintaining close relations with the University’s academic and administrative bodies.

In the 2011/12 academic year, the Office of the Dean of Students granted scholarships totaling NIS 8.2 million from various sources to 2,800 students, as compared to NIS 7,560,000 million to 2,860 students in the previous year.

The Dean’s Office is also active in a variety of areas via its various programs:

- **Academic and Personal Assistance Department** - offers a range of programs and services, such as preparatory programs for University candidates; mentoring for first-year students; enrichment courses and tutoring; academic guidance; aid for sight-impaired and special-needs students, and aid for students of Ethiopian descent, supported by the Myers Foundation, Teltel Charitable Trust, Polonsky Foundation and others.

- **Clinical Counseling Department** - handles students referred by the Academic and Personal Assistance Section for focused assistance designed to help those students adapt to the university environment. The high rate of response to the department’s services is reflected in the 9,300 hours of counseling provided throughout the year.

- **Student Housing** - offers 1,100 beds, including a range of accommodations for singles, married couples, pre-academic students, the physically disabled, and guests. The student housing area features a lively social and community life, and it offers such services as lounges, laundry rooms, a minimarket, computer labs, and more. Thanks to generous assistance from the Federmann family, work on the Federmann Dormitories continued this year as part of a four-year renovation project.

- **Social Involvement Department** - currently includes about 540 socially-conscious students ready and willing to engage in community action for social and individual change. Among the projects the department oversees are a high-school dropout prevention program; a higher education accessibility project; assistance to the mentally disabled; work with at-risk youth, and more. The activities take place in community centers in local education and social service settings.

- **Unique programs run by the Social Involvement Department**
  - **Fostering Academic and Social Leadership in Israel** - This scholarship program leading to a PhD is supported by the Friends of Raveh Ravid Fund. The program combines social leadership and academic excellence in outlying communities and is targeted at an elite group of students enrolled in a range of academic programs.
  - **Academic Leadership Program for Druze Students** - This unique program was established with the aim of creating and nurturing a cadre of educated leaders from the Druze population that could become a significant force in advancing their community. The Program is supported by the Cape Gate Foundation, Myers Foundation, Kathryn Ames Foundation, and others.
  - **Jewish-Arab Community Leadership Program** - This program, which is supported jointly by the German Friends of the University and the Myers Foundation, aims to enable multi-cultural dialogue and interaction between Jewish and Arab students via joint community action in mixed neighborhoods.
  - **Practical Academics Program** - This unique program, supported by the Friends of Raveh Ravid Fund, began this year under the auspices of the Rector’s Office. The program, whose participants are drawn from outstanding students from the Faculty of Humanities, seeks to transmit tools for critically examining public organizations and analyzing managerial dilemmas.
  - **Rothschild Ambassadors Program** - Founded by the Caesarea Rothschild Foundation - this program was established with the objective of forming a socially responsible leadership network that is interdisciplinary, involved, and influential. Twenty students were involved in the program in 2011/12, its first year at the University. Currently, 37 students participate in the Rothschild Ambassadors Program.
outside of Israel. In addition, the University participates in the European Union-sponsored Erasmus Mundus Program, which enables the further expansion of international cooperation agreements for student and faculty exchanges.

Visits and Cooperation Agreements - The University sends its representatives around the world to forge cooperative relationships in various areas, and hosts visiting representatives from foreign universities. This year, the University signed several such agreements promoting collaboration and student exchanges with several higher education institutions abroad, including the University of Florida, the University of Maryland, the University of Varna (Bulgaria), and the University of Warsaw (Poland).

The International School, which recently moved into its new home in the Hatter Student Building, is responsible for all its marketing, recruitment, admissions, and tuition. The School provides a wide variety of services to its students. Enrollment has increased steadily over the years; 1,063 students attend the International School in 2012/13, an increase of 32% over the previous year. These students are involved in all aspects of campus life and constitute an integral part of the student population. Their involvement creates a palpable and welcome demographic shift in the student body, embodying the multi-cultural quality of the University and contributing to the high academic level our institution offers its students.

The International School currently represents a major platform for the University of Haifa's internationalization efforts. To solidify its image as an international, multi-cultural academic institution, the University promotes its international reputation through the School on several levels:

Tri-semester Master’s programs - The International School has established 20 Master’s degree programs in cooperation with the University’s various faculties and departments, with the support of the Council for Higher Education’s Planning and Budgeting Committee. Three new programs began this year: Art Therapy, Maritime Civilizations, and Holocaust Studies. The number of participants in these programs doubled this year. In the next academic year, six more programs are planned to be launched: Diplomacy Studies; National Security Studies; Israel Studies; Marine Geosciences; MBA in Risk Management; and a Global Green MBA.

Study Abroad programs - For 38 years, the University has admitted students from all over the world for semester studies as part of the Study Abroad programs. Thanks to fundraising efforts and scholarships, several student exchange programs were introduced. As part of these programs, students from foreign universities were accepted to the University of Haifa and, in return, students from Haifa were sent to study at those institutions overseas. The opportunity to study abroad gives the University of Haifa an edge, increasing its appeal among those who aspire to attend university outside of Israel.

Projected Growth in Number of Students

In light of the steady increase in the number of International School students between 2008-2012 in all study programs, projected enrollment for 2016 is approximately 1,600 students.
Scholarships
Because of the heavy financial burden that students bear (73% work in addition to their studies), the Student Union strives to help as many students as possible to obtain various forms of financial aid. The Student Union’s flagship scholarships are for students who serve as IDF combat reservists and for students in allied health programs. This year the Student Union established a special department dedicated to fundraising and developing scholarships.

Advancing Internationalization
As part of the effort to promote the University as an internationally renowned institution, the Student Union supports internationally oriented programs, such as the Model UN Club, the Debate Club, the Ambassadors On-Line Program, and the StandWithUs Fellowship. The Student Union also holds several international events in cooperation with foreign embassies, such as Great Britain Day and Europe Day. In addition, the Student Union closely cooperates with the International School’s “Adopt-a-Student” program, in which Israeli students “adopt” foreign students and help them acclimate to life in Israel.

Encouraging Social Involvement and Leadership
The Student Union views students as important participants in social involvement. Accordingly, the Student Union took an active part in events such as the ‘Day to Save Lives,’ ‘Good Deeds Day,’ and fundraising drives for various causes. The Student Union also awards scholarships to students who are active in their community and cooperates with non-profits such as Paamonim, Tzniut, and the Rothschild Ambassadors.
The Younes and Soraya Nazarian Library is the largest academic library in Israel. The library reopened its doors to the public at the beginning of the 2012/13 academic year after extensive renovations made possible thanks to the generosity of the Nazarian family. The Nazarians are well known for their philanthropic endeavors on behalf of the community in fields including the arts, health, and higher education in the United States and Israel.

Library Collection

<table>
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<th>Year</th>
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<tr>
<td>2012/13</td>
<td>2,600,000</td>
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</tbody>
</table>

Easy access to the library from its newly located entrance next to the front of the main building, along with its comfortable and varied learning environments and advanced equipment, have made it a particularly popular study center. The library currently serves about 4,500 daily users, a 50% increase over past years. At the end of the 2010/11 academic year, the library collection encompassed a total of 2,490,716 items of all kinds. In 2011/12, the library added 19,530 titles in print in all languages and 1,573 e-book titles. In addition, about 1,400 electronic periodicals were added to the library’s subscriptions.

2012/13 Prominent Library Developments

Academic community service - This year, the library offers even more access and exposure to special collections for students, researchers, and the general public. These materials are also used to enrich educational and cultural institutions outside of the University. To promote the visibility of its collections, the library joined the GLAM initiative (Galleries, Libraries, Archives, and Museums) together with Wikimedia Israel.

Inauguration of the audio-visual center - In January 2013, the Dr. Devorah Rafaeli-Eshkol Audio-Visual Center was inaugurated. The Center provides users with advanced viewing tools and elaborate sound systems as well as a collection of tens of thousands of films, audio CDs, and sheet music.
The Reuben and Edith Hecht Museum was established in 1984 at the initiative of the late Dr. Reuben Hecht. The museum houses a collection of archaeological artifacts representing the material culture of the Land of Israel in ancient times.

This unique museum operates on the University campus in close collaboration with the Ministry of Education. It serves as both a study and research center for students and academic faculty and as an educational and enrichment center for the general public in the areas of archaeology, art, Bible studies and history.

The museum organizes conferences, symposia, seminars, and lectures; produces catalogues of its archaeology and art exhibits; and publishes "Michmanim", a journal focusing on archaeological research and artifacts from the museum collection.

Over the course of 2012, 66,455 people visited the Hecht Museum, compared to last year's 56,441, including 14,760 children and teens who participated in the study programs, creative workshops, and enrichment activities of the museum's creative learning center. This year's activities at the museum included:

> The Healthy Lifestyle in Antiquity program, as part of the Ministry of Education's designating 2011/12 as the “Year of a Healthy Lifestyle.”

> Visits by high-school art students, as part of a collaboration between the Ministry of Education, the School of the Arts and the Hecht Museum. The students met with the artist Rachel Shawir Bentwich, and discussed her exhibition “From Within the House.”

> Activities for students from Daliat el-Carmel and Isfiya, as part of the “Time Travel to Disappearing Cultures” and “Marine Archaeology” programs.

> Activities for students from southern Israel during the Pillar of Defense operation.

> Activities for thousands of special education students, made possible by a special gift from the Hecht Foundation.

> Researchers' Night, an event attended by more than a thousand visitors who participated in a variety of activities and creative workshops, centered around the theme "Between Computers and Thought.”

The Hecht Museum
The Pre-Academic Program (Mechina) was founded with the goal of making higher education accessible to interested candidates, who, for various reasons, could not meet the University's admission requirements.

In 2011/12, some 3000 students studied in the various Mechina programs, a 6% increase from the previous year's 2,824 students. Mechina students study in a variety of tracks, including day and evening tracks, the new immigrants program, a mechina for students with learning disabilities, and more.

The Mechina program serves as an ‘incubator’ for populations who would otherwise be excluded from higher education in Israel, providing access to university studies in a manner tailored to these students’ unique needs.

Mechina programs include:

Mechina programs for the ultra-orthodox community
The number of students in these specially-tailored programs has grown steadily, reaching about 250 men and women in 2011/12. This number represented a 35% increase from the previous year.

Mechina for minority students
As part of an effort to increase the accessibility of higher education to Israel’s minority populations, several changes were introduced in the Mechina. Among these changes, a specialist in multi-cultural education from the Arab sector joined the team of Mechina advisors to help Arab students cope with the cultural differences between them and the Jewish students and lecturers.

Mechina for Druze and Bedouin IDF graduates
This program, the flagship of the Mechina tracks, provides access to higher education for discharged Druze and Bedouin soldiers. The program continues to grow in popularity. Last year, the overall number of students increased, including the number of female students, graduates of national service, whose numbers increased six fold (3 to 19).

Mechina 30+
This program is aimed at adults aged 30 and above, who usually have families and day jobs. During the 2011/12 academic year, 122 students comprising three cohorts participated in the program, as compared to 108 from last year. Steadily growing in participants, the program provides access to university studies to adults who are interested in taking advantage of a second chance to acquiring higher education.