

President's Report 2021

CLIMATE CHANGE SOCIAL CHANGE COPING WITH COVID-19

ADAPTING TO A CHANGING WORLD



UNIVERSITY OF HAIFA

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*Cover: Pioneering marine research
reveals that coral reefs possess unique
genetic mechanisms that help them
adapt to changes in ocean temperatures
and currents caused by climate change.
Photo: Hagai Nativ*





UH OF ADAPTING TO A CHANGING WORLD

The Covid-19 pandemic forced all societies to reassess long-held assumptions and practices, and accelerated the need for developing unconventional strategies and processes in a rapidly changing world.

As vital hubs of research and teaching, universities play a key role in creating new knowledge and innovative thinking rooted in the convergence of science, technology and humanities.

Driven by social responsibility and a novel integration of diverse disciplines, University of Haifa is forging new paradigms and solutions that address pressing global issues, including climate change, economic and geopolitical shifts, and a more socially just society.



The Eshkol Tower lights up as UofH celebrates Israel's 73rd birthday.



Atop the Mountain, in the City and by the Sea

PRESIDENT'S MESSAGE

As I write this message a cease-fire agreement has taken effect after an 11-day armed conflict in Gaza that was accompanied by protests and rioting across Israel. We are deeply pained by the loss of life and attempts to disrupt the atmosphere of coexistence that exists in many mixed cities, including Haifa. Here, in our shared space on campus, between the mountains and the sea, we continue to build a civil society that is inclusive and inquisitive, in pursuit of knowledge that will guide us to safe harbors.

Looking back on the year that passed, there can be no doubt that 2020 was a significant and historic year. Yet despite the temporary uncertainty, we used the extended hiatus to plan for 'the day after' – with a measured and appropriate combination of caution, resilience and great resolve. I am proud to say that University of Haifa's leadership successfully managed the Coronavirus crisis, with a responsive approach to the needs of our community of researchers and students. We were able to use the time to improve our existing infrastructure and have emerged stronger and more determined to affect change, introduce new pedagogical practices and expand our academic footprint.

When I took office a little more than four years ago, we set for ourselves an ambitious goal – to transform into Israel's first Multiversity. We envisioned a university

spread across Haifa and the northern region, one that leveraged academic excellence and outstanding scientific research to promote social leadership and equal opportunities for every woman and man seeking to become part of Israel's middle class – the 'creative class'. We embraced our unique location – atop the mountain, in the city and by the sea – to make higher education more accessible and to draw inspiration from each of the distinctive ecosystems that characterize our surroundings. I am delighted to say that, we are steadily realizing this vision.

As we approach the University's 50th anniversary year in 2022, a new era is beginning. The University of Haifa will have active campuses in the city of Haifa – the Lorry I. Lokey City Campus in the port area, and the "Moshava" campus at the foot of the Baha'i Gardens. These campuses will offer a broad range of new degrees and offerings – from architecture and design to data science. These campuses are located near major public transportation hubs making them easily accessible from all parts of the country. Moreover, the new cable car system will make it easier to travel to and from the Mt. Carmel campus. In addition, the Leon H. Charney School of Marine Sciences is currently in the process of finding a permanent home along Israel's northern coastline, which will provide us with improved access to the deep sea and enable the School to expand its vitally important long-term



Located in Haifa's downtown business district, the Lorry I. Lokey City Campus of the University of Haifa is in and of the city.

Credit: Itai Bodel

academic vision. We expect the process to be completed by the beginning of the 2021-22 academic year.

Over the past year, a team of external consultants comprised of senior members of Israeli academia, assisted us in mapping our strategic direction for the next decade. Their recommendations were recently submitted, and we are taking action to implement their key findings. The purpose of the road map is to enable the University to strengthen its position as a leading globally aspiring research institution. Our leadership team is taking steps to expand existing areas of expertise and to introduce new areas of study. In order to achieve this, we will recruit the best minds in selected fields and encourage our researchers to break new ground in fields with high local and global impact.

We are extremely proud to report that our marine scientists are currently leading a unique international project that aims to decode the acoustic signals of the world's largest mammals, along with colleagues from Harvard, UC Berkeley, MIT, Brooklyn College, Imperial College, London and others. This generously funded project recognizes our prominent position in the field of climate research and sustainability. Likewise, we are pleased to announce that over the past year, four exceptional women researchers in fields including marine sciences, neuroscience, theater and occupational therapy were awarded prestigious ERC (European Research Council) grants. In addition to these noteworthy accomplishments, we were thrilled to watch as Prof. Ariela Lowenstein (Social work, Gerontology and Criminology) and Prof. Nitza Ben-Dov (Hebrew Literature) were awarded with Israel Prizes during the recent 73rd Israel Independence Day celebrations.

The Abraham Accords provide us with new opportunities for strengthening existing ties and forging new relationships between scholars in the United Arab Emirates and University of Haifa. Academic collaboration and joint symposia are regularly taking place between faculty members in both countries. Moreover, senior government officials in the UAE have embraced us as the academic bridge between cultures and peoples. We are partners in efforts aimed at improving regional harmony and interfaith relations.

To maintain the tremendous momentum generated in recent years, we ask you to join us as we redouble our energies. Over these past years, with your support and encouragement we have taken great strides toward realizing our international academic mission and have overcome obstacles. And now, we are poised to move forward and apply the most effective tools to fully realize the Multiversity vision. As we approach our 50th anniversary, investing in the future of University of Haifa is more vital than ever.

I see University of Haifa as a blueprint for building a more optimistic future for Israeli society – one that thrives on excellence, innovation, diversity, mutual tolerance and equal opportunity.

Prof. Ron Robin
President



President Robin meets with UAE Cabinet members during a visit to Abu Dhabi (May, 2021), including *Her Excellency*, Noura Al Kaabi, Minister of Culture and Knowledge Development.

HAIFA 2021

The new cable car system will be operational by end of 2021, and will connect the University with Haifa Bay and the Technion.



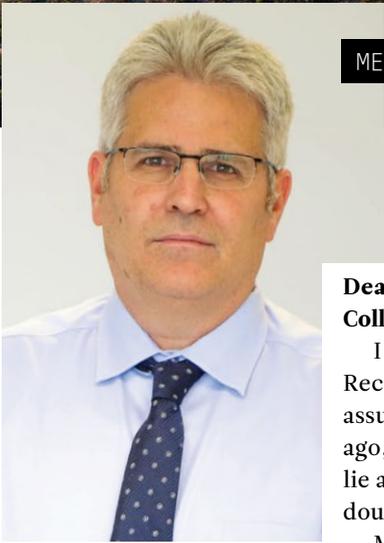
First face-to-face meeting for participants of the Jewish-Arab Community Leadership Program after the third lockdown lifts (March 2021).





Credit: Itai Bodei

MESSAGE FROM THE RECTOR



Dear Members of the Board of Governors, Colleagues and Friends,

I am deeply honored to have been elected Rector of the University of Haifa. Having assumed the position only a few short months ago, I am optimistic about the challenges that lie ahead and enthusiastic about the tremendous opportunities waiting to be explored.

My career at the University of Haifa began in 2003. I joined the University as a faculty member, established the Ruderman program for American Jewish Studies, was elected Dean of Humanities and now serve as Rector. Throughout my personal journey, I have learned that truly great things can be achieved when we work together as a community, committed to the greater good.

The University of Haifa embodies the inseparable link between environment and society. This year's Report, "Adapting to a Changing World," highlights our commitment to safeguarding our environment and addressing climate and social change. Environmental sustainability can only be realized by societies that value the many treasures around them – just as we, on Mt. Carmel, have learned to appreciate the extraordinary biosphere reserve here. Situated between mountains, city and sea, we are continuously exploring and discovering. This process leads to one basic truth: it is the duty of every society to care for its less fortunate members and future generations – not just of its own species, but of all those who share its ecosystem.

In the next decade, University of Haifa will focus on deepening our understanding of our connection to the environment. We

plan to establish an Interdisciplinary School for Sustainability within the next two years, and advance research that critically examines the profound complexities of inequality in Israel and worldwide. We will expand our leading research centers in brain and behavioral studies, and invest heavily in the field of gerontology to prepare for the implications of increasing longevity.

The University's mission of making higher education and equal opportunity more accessible to all citizens, and enabling their integration into Israel's 'creative class', is essential to the future of Israel. Our mandate is closely aligned with the United Nations' Sustainable Development Goals, which serve as a blueprint for a better and more sustainable future: eradicating poverty and hunger, health and well-being, quality education and gender equality, clean water and energy, economic growth, innovative infrastructure, sustainable cities and communities, confronting climate change, and caring for life on land and sea.

Together, the University of Haifa family, our dedicated community of researchers and staff and our loyal friends and supporters can make a real impact on our surroundings. I encourage us all to think globally and act locally. Doing so will bring us closer to our goals as we celebrate the University's 50th anniversary.

Gur Alroey

Prof. Gur Alroey
Rector

UNIVERSITY
OF HAIFA
ESTABLISHED
1972



3
CAMPUSES

Mt. Carmel, Haifa

Lorry I. Lokey
City Campus, Haifa

Joint Technologies
Institute (JTI),
Shanghai



10
Schools



6
Faculties



57
Inter-
disciplinary
Research
Centers



4
Marine
Sciences
Satellites



59
Academic
Departments
and Units



17,341
Students



1,000
International
Students
(from over 40
countries)



18
International
MA Programs

OPERATING BUDGET

(Thousands of NIS)

INCOME	2019/2020 ACTUAL		2020/2021 BUDGET		% CHANGE
	NIS M	%	NIS M	%	
Government Allocation	670.3	70%	687.7	70%	2.6%
Tuition Fees	202.9	21%	203.0	20%	0.0%
Other Income	82.4	9%	92.4	10%	12.1%
Total Income	955.6	100%	983.0	100%	2.9%
EXPENDITURE					
Salaries & Pension Payments	723.9	76%	762.3	78%	5.3%
Other Expenditures	231.7	24%	220.7	22%	-4.7%
Total Expenditures	955.6	100%	983.0	100%	2.9%

UNIVERSITY'S SHARE OF VATAT RESEARCH MODEL



*Estimated

UoFH WORLD RANKINGS*

#1

Education in Israel
76-100 Worldwide

#1

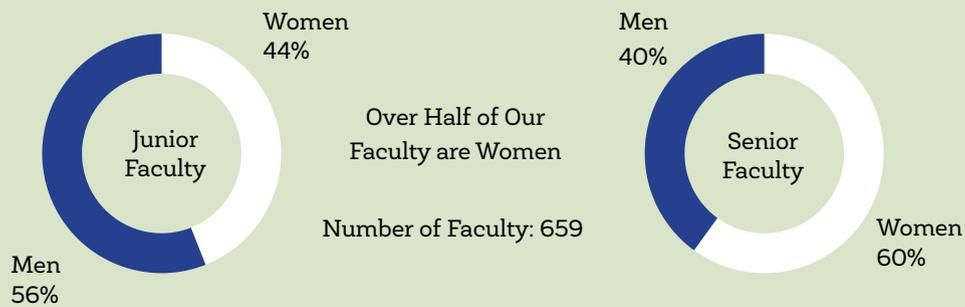
Marine Sciences in Israel
151-200 Worldwide

#2

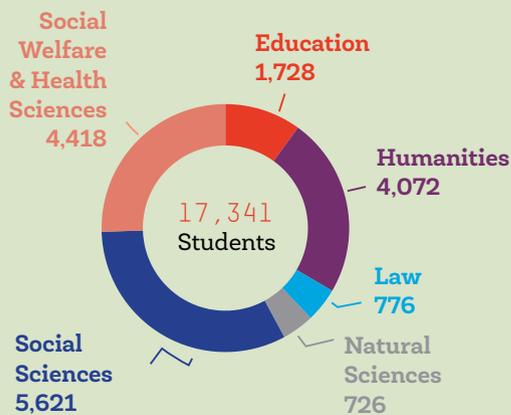
Communications in Israel
42 Worldwide

* Published in the Academic Ranking of World Universities 2020 (Shanghai Ranking)

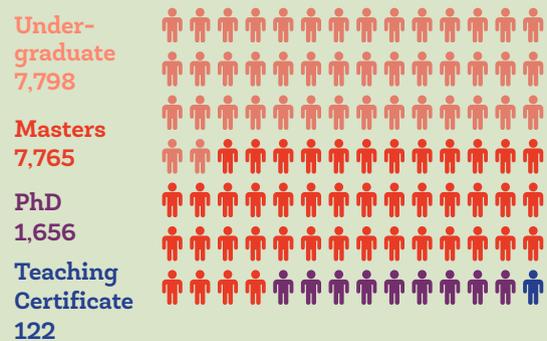
FACULTY



STUDENTS BY FACULTY



ENROLLMENT BY DEGREE



ADAPTING TO CHANGE: A YEAR OF COVID-19

+ NIS 1.5 M
in scholarships
and financial assistance
565 students provided with financial assistance through the Student Solidarity Fund, established to support individuals struggling with extreme economic hardship due to COVID-19

National Recognition for Digital Transformation
UofH received a 'Transformation Award' from The Israeli Chamber of Information Technology for its swift response to the pandemic, moving thousands of courses online through a hybrid system combining MOODLE and Zoom systems

Online library services accommodate accelerated demand*
Younes & Soraya Nazarian Library reports:
1.5 million website logins
73% increase in research consultation service
Interlibrary loan services increased a thousandfold

*February 2020-January 2021

A New Era *for* Wheat Discovery

RESEARCHERS AT THE
INSTITUTE OF EVOLUTION ARE
CONTRIBUTING
AN IMPORTANT PIECE TO THE
FOOD SECURITY PUZZLE



OBJECTIVE:

**50%
INCREASE**

IN FOOD PRODUCTION
OVER THE NEXT
15 YEARS

OBJECTIVE :

0 HUNGER



Prof. Assaf Distelfeld
Department of Evolutionary
and Environmental Biology
Director, Institute of Evolution

CLIMATE CHANGE

“The number of people affected by hunger globally has been slowly on the rise since 2014,” according to the UN Food and Agricultural Organization.” The Organization further warns that we will have to increase food production by 50% over the next 15 years to keep up with a growing global population. With the effects of climate change further diminishing our natural resources, feeding the world’s growing population is one of the most pressing challenges for the 21st century.

DID YOU KNOW?

UofH evolutionary biologists are cultivating fava beans as the next generation of superfoods. Fava beans provide superior nutritional value and are a healthier alternative to animal protein. The team is developing new genomic tools for optimal fava bean breeding.

GLOBAL HUNGER IS ON THE RISE. RESEARCHERS LOOK TO GENOMICS FOR THE SOLUTION.

Thanks to recent advances in wheat genomics and bioinformatics, a paradigm shift is taking place in wheat research with the potential to increase wheat yields and make a significant impact on global food security.

In a landmark scientific discovery, a team of international scientists has successfully sequenced the genomes of 15 wheat varieties. Prof. Assaf Distelfeld, head of the Institute of Evolution, was a member of the 10+ Genome Project, a team of 95 scientists whose recent achievement was published in *Nature*.

“Just a few years ago, the idea of sequencing the wheat genome was considered science fiction,” explains Prof. Distelfeld. “Wheat has one of the most complex genomes – five times bigger than human DNA. Our findings will help identify and manipulate specific genes for useful traits, such as tolerance to drought, resistance to crop diseases, or better grain quality. Knowing which wheat genomes ‘best perform’ will be critical in developing more productive, resource-efficient varieties of this crop.”

Prof. Distelfeld was recently recruited to head the Institute of Evolution, UofH’s prestigious center of excellence that studies biodiversity and evolution from an interdisciplinary perspective. The Institute’s Wild Cereal Gene Bank maintains collections of wild wheat cereals and wild barley from Israel and other regions in the Fertile Crescent. Israel and the Fertile Crescent are the center of origin and diversity of wild wheat and barley, which are the ancestors of cultivated wheat and barley. The Gene Bank aims to discover and isolate valuable genes that were “left behind” during 10,000 years of domestication.

The Wild Cereal Gene Bank Project utilizes advanced plant genome technologies to accelerate genome sequencing research. New greenhouse facilities are currently under construction thanks to the generous support of longstanding friends of the University of Haifa, Sir Mick Davis and Prof. Alfred Tauber, Chairman Emeritus of the Board of Governors.



THE WONDER OF WHALES

Deciphering the Secret Language of Earth's Largest Mammals

The Leon H. Charney School of Marine Sciences is embarking on a major scientific quest with partners from the world's finest universities, to listen, interpret and communicate with one of the earth's largest and longest-living creatures – the sperm whale. The mission of the Audacious Project CETI (Cetacean Translation Initiative) is to reshape humanity's understanding of its place on the planet and to inspire broader environmental awareness.

CLIMATE CHANGE

For the first time in history, advances in engineering, artificial intelligence, computational linguistics and Internet connectivity will enable leading scientists from around the world to deliver the first genuine interpretation of a non-human language.

“The Audacious Project will use advances in robotics, signal processing and underwater image analysis to engineer non-invasive tags capable of recording sounds and visual information at great ocean depths,” explains Prof. Dan Tchernov, COO of the project. “The whale sounds collected over time will be analyzed by the translation team for structure and syntax in order to produce synthesized whale calls that can be used to initiate a response from them.”

Researchers from the Department of Marine Biology and the Hatter Department of Marine Technologies will join a team of global experts from CUNY¹, MIT², Harvard³, UC Berkeley⁴, Aarhus⁵, Imperial⁶, the ISI Foundation, National Geographic and other leading research organizations. The University of Haifa team will be supporting the data collection efforts, including field biology, robotics and engineering. All of the project's tools, data and findings will be shared with the scientific community and the public via an Open Source data portal platform.

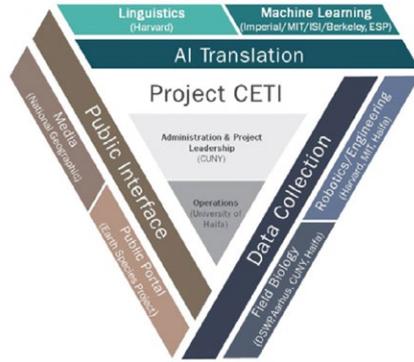
Employing advanced robotics, the team will address technical limitations such as the challenge of isolating an individual speaker from multiple speakers and filtering out background noise, including

‘signal carrier problems’ – the difficulty in tracking tone, tempo, rhythm, repetition, and structure.

The seven-year project aims to forge a connection between the human world and the natural world, and contribute to the conservation of whales and wildlife at large. According to Prof. Tchernov, “By harnessing the powers of science, technology and human ingenuity, we may be able to mitigate the most damaging effects of climate change and inspire our society to protect life forms above and below the surface of the sea.”

City University of New York (CUNY)¹; Massachusetts Institute of Technology (MIT)²; Harvard University (Harvard)³; University of California Berkeley (UC Berkeley)⁴; Aarhus University, Denmark (Aarhus)⁵; Imperial College London (Imperial)⁶

With a budget of over \$50 million, Project CETI brings together cross-disciplinary leaders under the shared goal of pushing the boundaries of science and making interspecies communication a reality



University of Haifa
with
Aarhus University, UC Berkeley
CUNY, Harvard
Imperial, MIT



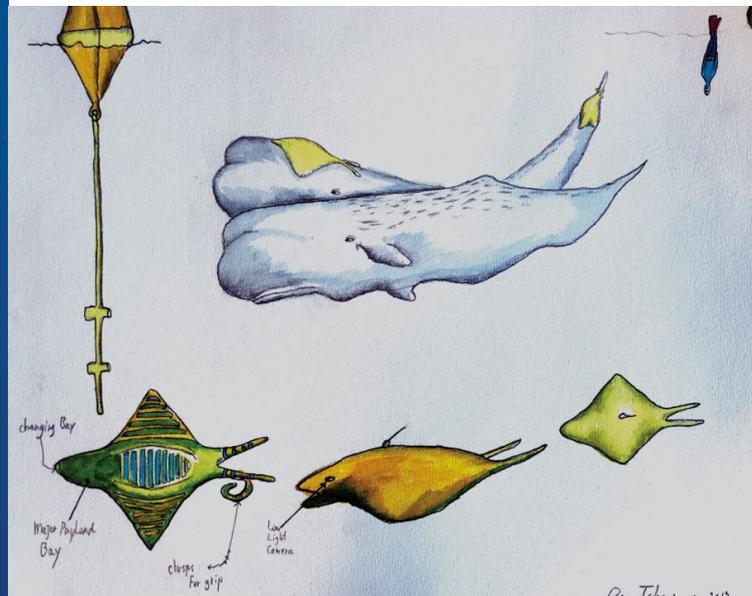
Prof. Dan Tchernov

Leon H. Charney School of Marine Sciences
Chief Operating Officer, Project CETI
(Cetacean Translation Initiative)
Head, Mediterranean Sea Research Center of Israel
Scientific Director, Morris Kahn
Marine Research Station



DID YOU KNOW?

Over 100 researchers at the University of Haifa are engaged in climate change research, including environmental biologists, evolutionists, natural resource managers, marine scientists and experts in sustainable development.



Envisioning the next generation of soft robotic sensors for monitoring marine animals without disturbing them.
Illustration by Prof. Dan Tchernov

Periodic temperature changes, drifting landmasses, fluctuations in sea levels and changes in atmospheric composition are some of the major geological developments that have threatened the existence of coral reefs over the course of millions of years. Fortunately, they developed resilience to survive these changes, providing not only exceptional beauty but also an underwater habitat to support 25% of all sea life as we know it today.

But today, anthropomorphic (human-induced) climate change is threatening coral reef survival more than ever before, with rising

sea temperatures and a drop in ocean acidification caused by increased CO₂ emissions that enter the atmosphere.

To understand how corals have developed their hardy abilities to survive, Dr. Tali Mass is leading breakthrough research at the University's Leon H. Charney School of Marine Sciences.

In a series of studies, Dr. Mass's teams compared the morphology of deep-sea and shallow-water corals. The former are deprived of light (that enables photosynthesis for the algae living symbiotically on the reefs and feeding the corals), and the latter are exposed to the rising levels of ocean

acidity to simulate the effects of climate change. "We look at the stage of development from larvae into mature corals, which is when they settle on an existing reef or other hard surface and are at their most vulnerable to environmental influences," Mass explains.

They found that in both stress environments, corals that survive – and many do not survive – have a particular genetic molecular mechanism in common that allows them to adapt the shape of their mature skeletons and spend energy differently. They are thus able to grow and thrive.



CORAL VS. CLIMATE CHANGE

A LESSON IN RESILIENCE

Dr. Tali Mass is uncovering the hidden mechanisms of coral resilience to climate change, but warns that today's environmental stressors may simply be too much for them to survive.



Dr. Tali Mass

Leon H. Charney School of Marine Sciences
Head, Coral Biomineralization and Physiology Laboratory

Taking this a step further, one of the studies is exploring coral environments off the shores of Eilat and the Caribbean, seeking to learn whether young corals can migrate from deep-sea environments (which are less impacted by anthropogenic stress), settle and survive in shallow waters that are affected by environmental change, and thereby provide resilience for threatened shallow-water corals. Examining whether migrating larvae in these cases adopt characteristics of their new environments or keep those of their parent will also shed light on the nature-nurture relationship and stamina of coral reefs.

So can we stop worrying about the influence of climate change on ocean acidity?

“Corals that have been able to survive over millennia identified a way to endure change and evolved genetically to pass on resilience to following generations,” explains Dr. Mass. “However, we are finding that the resilience mechanisms developed over a long period of time. The climate and sea changes that we are witnessing today are happening faster than ever. Who knows what new threats these changes will pose to coral survival. We fear that the coral’s long

generation time may not allow for acclimatization to such rapid climate fluctuations. Climate change – and the survival of the coral reef ecosystem – are in our hands, and we mustn’t let go.”

Dr. Mass’s research is partly funded by NSF-BSF and conducted with teams in Israel, Bermuda and the Cayman Islands. The German-Israeli Foundation for Scientific Research and Development also supports part of the research conducted in Germany, and the ERC funds research conducted in the Red Sea and the Mediterranean Sea. BSF also funds collaborative research in Israel and Hawaii.



STUDENT SPOTLIGHT ADVANCING CLIMATE CHANGE EDUCATION AND AWARENESS

Meet Hadar Elyashiv, a doctoral student studying submarine landslides at the Dr. Moses Strauss Department of Marine Geosciences. Her findings could help assess the potential risks and future dangers of tsunamis. After completing her MSc at the University of Haifa, she traveled to the University of Bremen, where she became a co-founder of the *Once Upon a Time Project* – a book of scientific fairy tales with a message for young and old.

The *Once Upon a Time Project* aims to communicate science through short stories that encourage dialogue between scientists and the general public especially children, our next

generation. It brings together young researchers, artists and writers from around the world to teach us about climate change, dangers of pollution and the importance of our oceans. The first set of stories have been translated into six languages and are available for free download. They are in the process of being translated into an additional six languages! The project,

awarded a 10,000 Euro prize by the German Ministry of Education, was established by early career researchers mainly from the MARUM Center for Marine Environmental Sciences at the University of Bremen.



Navigating CHANGING CURRENTS

Experts from Israel's maritime think tank weigh in on the strategic challenges and opportunities in the new geopolitics of the Eastern Mediterranean.



**Prof. Rear Admiral (Ret.)
Shaul Chorev**
Head, Maritime Policy &
Strategy Research Center
and The Ezri Center for Iran
& Persian Gulf Studies

During the last decade, the Middle East has experienced unprecedented social, political and military changes. With disruptive events continually reshaping the geopolitical map of the region, researchers at the Maritime Policy and Strategy Research Center (HMS) have been evaluating regional shifts, hosting international symposia and preparing position papers that seek to shape Israel's national policies vis-à-vis the Eastern Mediterranean, the Persian Gulf, climate change and the environment.

Founded in 2016, HMS set out to be a leading Israeli academic multidisciplinary research center, focusing on the Eastern Mediterranean and the Red Sea Regions. According to HMS Director Prof. Shaul Chorev, retired Israeli Navy Rear Admiral and former Head of the Israel Atomic Energy Commission, “The seas are playing an increasingly crucial role as a source of economic activity. A growing number of local and foreign powers – including China, Russia, Turkey and Iran – are intensifying efforts to expand their influence in this region and secure valuable maritime assets. The time has come for Israel – a country that depends on the sea for energy, trade, tourism and drinking water – to develop a proper maritime strategy and to increase parliamentary and public awareness of the maritime domain.”

Recently, HMS submitted a comprehensive annual report to the Government of Israel focusing on key issues facing Israel's sea activities and offering recommendations for maritime policy. The report provides an overview of global developments affecting maritime activity and geopolitics at sea. It addresses economic issues, navy and military developments, territorial conflicts, energy resources and infrastructure, climate and security. “As a policy-oriented document, we propose 10 actionable strategies that can contribute to Israel's geopolitical and economic growth. We also included an 11th recommendation to prioritize the maritime domain as key to our region's political, economic and environmental welfare.”

Currently, HMS is focusing on a number of regional challenges and opportunities that will shape Israel's future in the coming decade.

University of Haifa is extremely grateful to Capt. (ret.) Dov Shafir for his generous gift of \$1 million to HMS, which will help it attract young, talented academics and continue to strengthen its position as an internationally recognized maritime research center.

Leveraging the Abraham Accords: HMS – Abu Dhabi Maritime Research Collaboration

Research and Advisory. According to Prof. Chorev, “The joint issues which are behind the cooperation... make it a strategic collaboration of paramount importance to the two countries – not only academically, but also at the security and geopolitical levels.” President Robin, who lived in

Following the 2020 signing of the historic Abraham Accords, HMS and the Ezri Center for Iran and Persian Gulf Studies signed a memorandum of understanding with Abu Dhabi-based TRENDS



Photo courtesy: Rachel Gebro, student in the Jewish-Arab Community Leadership Program generously supported by the German Friends Association.

Abu Dhabi for eight years when he served as Provost of NYU, added, “This agreement reflects the importance that the State of Israel and Israeli academic institutions place on strengthening academic ties between the two countries.”

Haifa Port Finds Itself at the Center of American-Chinese Competition

would be operating close to where ships from the US Sixth Fleet dock and warn that the agreement would negatively impact American-Israeli relations. Given the importance of China’s investments

In 2019, Israel signed a contract with Chinese company Shanghai International Port Group to upgrade and operate Haifa’s new Bay Terminal for a 25-year period beginning this year. American authorities have expressed concerns that the Chinese company

in Haifa, HMS joined forces with the Washington-based Hudson Institute to analyze the situation and develop recommendations. The report argued that the Israeli government originally focused on the financial advantages of the Chinese bid without taking into account the larger strategic and security considerations. As a result of the report’s recommendations, the Israeli government established an intra-governmental mechanism to review, approve, and subsequently monitor all foreign investments in sensitive Israeli infrastructure and industries.

Konrad Adenauer Stiftung Collaborations and Symposiums

“Strategic Developments in the Eastern Mediterranean: How the ‘East Med’ Became a Crucible for the Region’s Problems.” One of

Another important 2020 collaboration was the MOU that HMS signed with Konrad Adenauer Stiftung (KAS) for research cooperation on issues integral to the Middle East and Europe. KAS became interested in HMS following the Center’s August symposium on

the keynote speakers explained that while the dangers stemming from American-Chinese tensions in the South China Sea may be garnering more media headlines, the complexities arising from the myriad of issues and the various regional and international actors in the Eastern Mediterranean could make this area even more dangerous. The collaboration with KAS will expand in 2021 with a focus on two themes: safeguarding the maritime environment and delineating Israel’s position vis-à-vis the United Nations Convention on the Law of the Sea (UNCLOS).

Finding Common Ground with Turkey

with the Research Center for Energy Strategies and Policies of Turkey (TESPAM). Following an introduction by Israel’s embassy in Ankara, the two Centers began exchanging ideas that may lead to possible solutions to the ongoing Israel-Lebanon maritime border dispute. Prof. Chorev points out that, “The dispute over

While Israel-Turkey government relations may be reaching a historic low, HMS’s expertise in the Eastern Mediterranean has been instrumental in developing a collaboration

the maritime border, while less well known than the conflicts over the land border, involves a much larger area – and valuable natural gas.” The HMS-TESPAM efforts are enabling Track II (parallel) discussions that are taking place in tandem with the American-led mediation talks between the governments of Israel and Lebanon. This type of process is very similar to the early contacts that took place between nongovernment Israelis and Palestinians regarding the two-state solution.



SOCIAL CHANGE

The Social Mobility Initiative: Transforming Education, Changing Lives

“The world is facing profound technological, economic, health and social challenges. For higher education to meet these challenges successfully it must reduce inequality, open up social mobility and strengthen the social fabric of society.”

- President Ron Robin

University of Haifa is the first Israeli institution of higher education to launch a campus-wide initiative dedicated to promoting social mobility for under-represented students from Israel’s geographical and social periphery. The flagship Social Mobility Project offers comprehensive financial, academic, and social support services to students from socio-economically disadvantaged backgrounds throughout their studies – including career counseling.

“We had an overwhelming response from students for this new program,” noted the Dean of Students Prof. Jenny Kurman. Members of the 30-student

pilot group represent the entire spectrum of Israeli society – Israeli-born Jews, new immigrants from Ethiopia, and Arab students from different religious groups. “These students are all first-generation university students from the geographical and social periphery in their first year of studies. It is also interesting to note that this diverse group of students are pursuing a wide range of degrees from computer science, law, education, social welfare and the health sciences.”

In the second year of the program, students are expected to volunteer in their communities in order to give back to society. The experiences and knowledge gained through volunteering will prepare participants with the skills needed for success in the job market after graduation.

According to Prof. Roni Strier, who leads the initiative, a key component of the project is the establishment of a Knesset lobby group that will advocate for these

types of programs at universities throughout the country. “Raising public awareness is critical to foster the political and budgetary changes needed to support this paradigm shift. We believe that our efforts at University of Haifa will be a model for similar programs throughout the country.” In the long term, the Social Mobility Program will have significant impact on shaping socio-economic policy to become more equitable and inclusive.

“We are extremely grateful to the Steinmetz family for sharing our vision for inclusive academic excellence and making it possible to launch the initial phase of the Social Mobility Program,” said President Robin. “It is a great privilege for us to work with the Steinmetz Foundation, whose philanthropic activities are supporting many inspiring programs that positively impact the lives of so many young people in Israel.”



Meet Two Scholarship Recipients:

Yael Bobek, 24
Physical Therapy

Yael’s family made Aliyah from Argentina to Hispin in northern Israel when she was a young girl. Recently, she moved to Haifa to enroll in the Department of Physical Therapy. Yael had been saving money for college, but soon realized that she would need additional assistance to make ends meet and fully focus on her studies. She was thrilled to be accepted to the Social Mobility Project. “From the very beginning, I was impressed with the program staff and how invested they are in making sure that we succeed. Our counselors take an active interest in our academic progress and ask what is hard for us and where we need extra help.”

Beyond the academic support, Yael is grateful to have a community on campus. “Even though we come from different parts of the country and different cultural backgrounds, the group really sticks together. During the COVID-19 pandemic, that bond was so important. Being in the program together gave us a good feeling – a sense that we had someone looking out for us.”

Salsabeel Laham, 19
Computer Science

“When I was 10 years old, I attended a robotics program for gifted children at University of Haifa. Right away, I decided that this was where I wanted to study when I grew up.”

Salsabeel comes from a large Arab family from nearby Baqa al-Gharbiyye. “I’m the youngest in the family – and the first girl in the family to attend university!” Her parents were unsure whether they had the financial wherewithal to support Salsabeel’s academic ambitions. “But now, this program has allowed me to realize my dream and that of my parents.”

Salsabeel speaks enthusiastically about the special workshops that focus on study techniques, time management and handling the demanding course load. “The workshops are offered on Fridays. It’s an extra investment in time, but it is well worth the investment. The program gives us the tools and strategies we need to stay focused and feel confident.”

“Now I wake up in the morning knowing that someone is waiting for me – and that puts me in a good mood all day long.”



UofH students participating in the Social Mobility flagship program.

“

SOCIAL CHANGE

YOU ARE NOT ALONE

UofH Legal Feminism Clinic steps up legal advocacy for women

”



Credit: Elnor Eldar

In Israel, as in many countries around the world, it is estimated that some 35 percent of women are sexually assaulted at some point in their lives. Yet many who have turned to the emergency room for medical care and for emotional support at a time when they needed it more than ever, have reported that they did not receive the care that they should have received.

This was revealed by a research team of law students from the University of Haifa's Legal Feminism Clinic, headed by Adv. Vardit Avidan. The team conducted a series of surveys at Israeli hospitals and found that many women had to wait a number of hours to be

seen in the ER, were examined by male doctors, and even treated judgmentally or disparagingly by social workers. The team also learned that hospitals lack enough post-rape examination rooms and that many forensic examination kits are often discarded soon after being used, which is a critical error given that in many cases women will only make a formal complaint months, or even years later.

“We were shocked to discover how much needs to be done to improve care for the thousands of sexually assaulted women who come to the ER each year,” says Avidan. So the team set out to lobby for a change in protocol in Israel and to

Adv. Vardit Avidan

Faculty of Law

Head, Legal Feminism Clinic



get more rape care rooms set up. “We spent seven years of intensive petitioning to reach that goal, presenting position papers and holding ongoing discussions with health organizations, government leaders and committees.”

In December 2020, all that work finally paid off when the government allocated a significant budget to Israel’s healthcare system to improve rape victim care in ERs. “This has been an incredible achievement for the Legal Feminism Clinic,” she says. “It will allow for more women forensic doctors in hospitals, provide more dedicated rooms, extend rape kit storage, train healthcare and social workers – and most importantly, enable better healthcare with more dignity and compassion.”

The Clinic’s work protecting women’s rights does not stop there.

Ongoing projects include advocacy and litigation in family, labor and criminal law, legislation reform, mediation, policy papers and raising awareness. The Clinic aims to differentiate itself from the other women’s rights organizations by taking on complicated legal issues that have not been dealt with adequately by other organizations.

It also aims to make a difference in the lives of students. “This is an important aspect of our work. In group discussions, we review the complexity of interaction with clients and the court, and we ensure that students feel safe if they decide to share personal stories of sexual assault and violence. Ultimately, these projects impact the way our young students view their own personal experiences at home, at work, and in social settings.”

7

Clinics

Law, Technology and Cyber Clinic

Women’s Rights Clinic

Law and Education Policy Clinic

Public Defender Legal Clinic

Human Rights Clinic

Civil Litigation Clinic

Leon Charney Dispute Resolution Clinic

500

Cases and Projects Annually

30

Multidistrict Litigation Cases Per Year

Multiple Workshops and Community Outreach Activities

UofH community participated in “You Are Not Alone” - an online event commemorating International Day for the Elimination of Violence Against Women (November, 2020).



Photo courtesy Rambam Health Care Campus

COPING WITH COVID-19

ADAPTING *to* LONG-TERM IMPLICATIONS *of* COVID-19

CCOVID-19 has touched our lives in so many ways. From social distancing and flattening the curve to essential businesses and herd immunity, the Coronavirus will leave a lasting imprint on our families, communities and societies.

Since the onset of the pandemic, our dedicated researchers at the School of Public Health have been tracking the spread of the virus, advising key decision makers in governments and industries and evaluating

the impact of different health policy responses on the economy and education.

“The likely assumption is that the coronavirus causing COVID-19 will be with us for years,” explains Prof. Manfred Green of the University’s Department of Epidemiology. “But now that we have effective vaccines, I am optimistic that we will be able to control the global pandemic.”



Prof. Manfred Green

of the School of Public Health, is a medical doctor, epidemiologist, member of the Ministry of Health’s Vaccination Advisory Committee and a member of the Ministry of Health’s Pandemic Response Team.

Israel is at the forefront of the world’s most ambitious vaccination campaign. The country’s progress is being tracked by Israel’s Ministry of Health in cooperation with advisory committees of experts in vaccines and the health services, and the results look very promising. “The Ministry of Health recommended that the government take options on purchasing vaccines that were under development from the very beginning of the pandemic. It was a risky strategy because we did not know when the vaccines would be available and whether they would be effective. Right now, that approach has proven itself as the number of new cases, as well as hospitalizations and deaths, are dropping quickly among the vaccinated.”

Despite the impressive success of the vaccine rollout, it will take some time until the country achieves herd immunity. “At the outset of the vaccination campaign, we conducted a study and found that a significant percentage of the population was very hesitant about being vaccinated, especially in the Haredi and Israeli-Arab communities. While we have made tremendous progress,

significant portions of the population will probably continue to remain unvaccinated. It will be extremely difficult to achieve herd immunity until that group agrees to get vaccinated.”

Together with their expert advisors, the Ministry of Health is monitoring the efficacy of the vaccines, as well as evaluating the impact of the widespread lockdowns on the public. “While the lockdown restrictions dramatically reduced the spread of the virus, they took a heavy toll on society. This may be an unpopular thing to say, but we may look back and say that we should have been less restrictive – that the price was too high. But

then, looking back is always much easier than looking forward.”

The lockdowns also created a “watershed moment” for the workplace. “Work will never be the same,” asserts Dr. Yonah Amster, Head of the Department of Environmental and Occupational Health at the School of Public Health. “The pandemic has taught us that the traditional structure of work is not sustainable at best and wasteful at worse. The pandemic has brought about a paradigm shift in all fields, with the workplace being no exception.”

Dr. Amster has been advising the World Health Organization on occupational health issues related to COVID-19. His work at the WHO focuses on producing policy and technical briefs on how to prevent and mitigate the spread of COVID-19 in the workplace, and how to stay healthy during workplace closures and while teleworking. “We have learned that while remote work has benefits in terms of efficiency, it also poses public health risks (e.g. decreased physical activity, limited social interaction, and poor ergonomics) which need to be addressed through education and policy.”

Dr. Amster believes that the changes we have seen in the workplace are not merely a fleeting response to the pandemic, but are trends that will reshape the economy, education, healthcare and society’s environmental footprint. “The pandemic challenges us to create a safer, fairer and healthier world.”

...the changes we have seen in the workplace are not merely a fleeting response to the pandemic, but are trends that will reshape the economy, education, healthcare and society’s environmental footprint.



Dr. Yonah Amster

is a medical doctor, epidemiologist, specialist in occupational and environmental medicine and a consultant with the WHO headquarters.

In the Aftermath of the COVID Pandemic

CARING FOR OUR CARERS

Stress and PTSD symptoms among
frontline healthcare workers

“...rates of distress were high among doctors and nurses, as well as among other health and social care roles, including allied health professionals, ambulance workers, hospital aides, pharmacists, and care home staff...”



The COVID-19 pandemic laid bare many long-standing problems with healthcare systems around the world. Overstretched healthcare workers in hard-hit countries struggled with long working hours, fatigue, and extreme psychological stress.

COPING WITH COVID-19

A new study conducted by University of Haifa and UK researchers documents the especially high toll that COVID-19 took on healthcare staff in the United Kingdom. The study, led by Dr. Talya Greene, head of the Department of Community Mental Health, revealed that healthcare workers were exposed to unprecedented pressure and trauma as they cared for COVID-19 patients and those fighting to stay healthy and safe.

According to the study, more than half of health and social care staff surveyed experienced mental health disorders – including anxiety and depression – following the first wave of COVID-19. One in five of health and care workers experienced post-traumatic stress disorder (PTSD) after the pandemic stuck last year.

“We found that rates of distress were high among doctors and nurses, as well as among other health and social care roles, including allied health professionals, ambulance workers, hospital aides, pharmacists, and care home staff,” explains Dr. Greene.

The study, published in the *European Journal of Psychotraumatology*, examined data on 1,194 health and social care workers from hospitals, nursing or care homes and other community settings across the UK. Concerns raised by staff included fears about infecting others with COVID, being unable to talk with their managers about how they were coping, feeling stigmatized about their role, and concern over not having had reliable access to personal protective equipment.

Despite the public’s outward show of appreciation for health care frontline workers and the heartwarming applause from balconies, Dr. Greene warns that a mental health crisis is brewing across the health and social care sectors. “We need to ensure that specialist help is offered and accessible across all the different roles and settings,” urges Greene. “It is important that this support is planned for the long-term. Our findings highlight the urgent need for immediate long-term funding for specialist mental health services for health and social care workers.”

Post-COVID Progress

The post-COVID healthcare landscape is already showing signs of change. Hospitals have learned how to best handle the crisis – clinically and administratively. Today, many medical care facilities allow family members to visit hospitals safely, having put in place protocols for wearing personal protective equipment. “These protocols made a huge difference in buffering distress of the patients, families and the staff as well,” adds Dr. Greene.

“The post-COVID world also poses new challenges,” Dr. Greene emphasizes. “Emerging research is clearly indicating that survivors of serious COVID illness suffer from high rates of mental health disorders. COVID survivors urgently need our support.”

For more information about supporting research on the psychological impact of COVID-19, please contact the Office of the President.



Dr. Talya Greene
Head, Department of
Community Mental
Health

International MPH Program at the University of Haifa

Awarding Master of Public Health (MPH) degree with a specialization in the field of Health Systems Administration and Global Health Leadership since 2002

One year program
(without thesis)

150 hours of field study

Accredited in Israel and Europe.

A CEPH Accredited Program

(1 of 5 accredited programs outside of North America by the US Council on Education for Public Health)



COPING WITH COVID-19

UNIVERSITY OF HAIFA AND UC SAN DIEGO MARINE PARTNERSHIP GOES HIGH TECH TO SAVE UNDERWATER EXCAVATION PROJECT

MARITIME ARCHAEOLOGY

Neolithic underwater excavation site at Habonim Beach. *Courtesy: Amir Yurnam*



In recognition of their work to reshape archaeological studies, UofH and UC San Diego research teams were awarded the 2021 CENIC Innovations in Networking Award for Research Applications (Corporation for Education Network Initiatives in California).

“When the pandemic hit, we were forced to cancel a number of joint archaeological expeditions,” explained Prof. Assaf Yasur-Landau. The situation was looking bleak, with no clarity over when regular air travel would resume. “We understood that we had to find the best way to collaborate – something that would allow us to make lemonade out of lemons.”

Marine archaeologists use cutting-edge technologies to beat COVID-induced disruptions

In the face of travel restrictions imposed to stem the spread of the Coronavirus, scientists from University of Haifa and University California, San Diego (UC San Diego) quickly adapted to the changing environment.



(l-r) Prof. Assaf Yasur-Landau, Head, Laboratory for Coastal Archaeology and Underwater Survey at the University of Haifa and Prof. Tom Levy, Norma Kershaw Chair in the Archaeology of Ancient Israel and Neighboring Lands at UC San Diego, at excavation site off the Carmel coast in 2018.

The partnership, headed by Prof. Assaf Yasur-Landau (Leon Recanati Institute for Maritime Studies) and Prof. Tom Levy (Scripps Center for Marine Archaeology), was created to investigate the impact of long-term climate change and rising sea levels on the cultures of the eastern Mediterranean – especially those along the coast of Israel.

Teams from both institutions were working on an excavation of a Neolithic underwater settlement off the coast of Haifa.

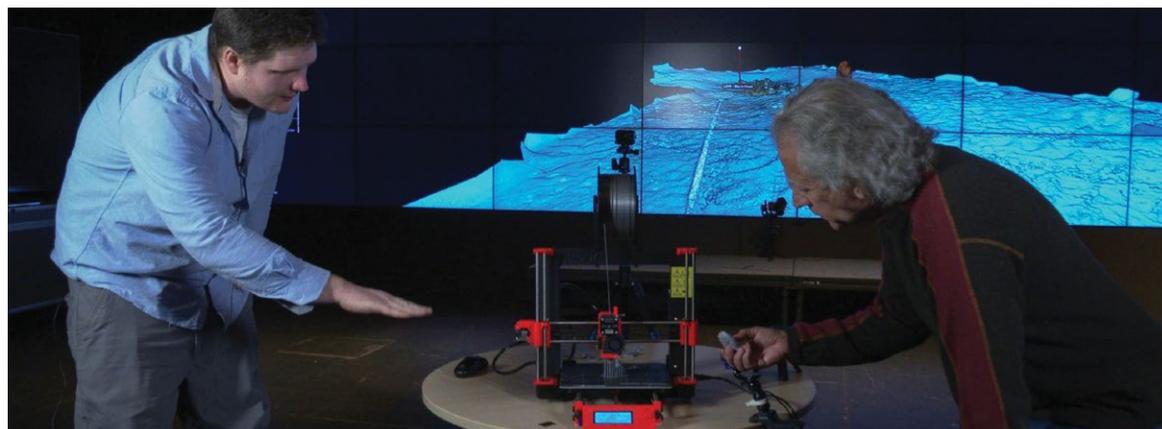
“We had planned to join Assaf and his team in the field in October 2020, however COVID-19 travel restrictions made it impossible,” said Levy. “The challenge was to find a way for our UC San Diego team, stuck in southern California, to collaborate with our Israeli colleagues in a meaningful and productive way.”

The UC San Diego team started using cutting-edge visualization tools developed at Qualcomm Institute, 3D printers, a supercomputer,

their analysis with their Israeli colleagues by the following morning.

The project has discovered the remains of 8,000 year old settlement walls, as well as flint implements and fragments of early pottery, and built a detailed 3D map of the site. Comparing the new information with other submerged settlements along Israel’s coast-line will help us to better understand how rising sea levels and environmental changes affected ancient societies. “Along the coast of Israel, submerged settlements, ancient harbors and sunken ships present a unique story of 11,000 years of human resilience and adaptation,” notes Prof. Yasur-Landau. “Given the current climate change challenges, we would be wise to learn more about how earlier humans along the coast adapted to their changing world.”

The joint research project is being funded by the San Francisco-based Koret Foundation. The Foundation encourages groundbreaking research initiatives that strengthen the bonds between the US and Israel and respond to pressing environmental issues. The fit between the two institutions could not have been better. “UC San Diego is new to marine archaeology, having only started in 2016, so we really



Pictured above: Online live meeting between the excavations site and San Diego, and the creation of 3D objects.

and GoPro underwater cameras to “join” their Israeli collaborators on a three-week excavation of the site from the safety of home. Because of the 10-hour time difference between California and Israel, the researchers were able to work around the clock. Californians slept while the Israeli divers were collecting artifacts under the sea. By evening, Israel time, archaeological finds were scanned and emailed together with video recordings of the excavations to California. The American team would then process large image files to create accurate 3D models, review the video footage and share

wanted to acquire the tools of underwater excavation,” explained Prof. Levy. “University of Haifa is one of the world’s pioneers in the field, with many years of experience. We thought they would make an ideal partner for us.”

The researchers are preparing articles documenting their findings and the hi-tech tools and methods they used during the excavations. The teams intend to renew their face-to-face meetings as soon as possible and use the latest technologies to expand and deepen their collaborative efforts.

Responding from the Heart

Students take action to help the elderly in Haifa



Israel's population is aging rapidly and in the next several years it will face the challenge of finding skilled human resources for health and welfare services. In response to the need for greater care, the University of Haifa's Department of Gerontology has become a pioneer in interdisciplinary research and innovative programs to safeguard Israel's aging population.

Like many countries around the world, the COVID-19 crisis took a heavy toll on Israel's elderly population. Strict lockdowns, significantly higher risks of illness, and the inability to access social support services severely affected their physical and emotional wellbeing.

At the first signs of the COVID-19 outbreak,

University of Haifa students, in partnership with the Dean of Students, responded immediately by rolling out a special program called "Keeping in Touch". The project aimed to improve the quality of life of underserved elderly citizens by connecting them with the outside world and helping them feel less isolated. The community outreach program quickly became a large-scale operation involving several hundred volunteers, providing much needed relief to Haifa's overworked social workers.

"Coronavirus restrictions essentially 'stripped' the elderly of their independence," explains Tamar

Nagler, a nursing student and one of the founders of the initiative. “In the face of a lockdown, we know how seriously and rapidly a person can deteriorate,” added Liat Epstein, an occupational therapy student who helped to mobilize a group of student volunteers.

In collaboration with the Haifa Municipality, UoFH students expanded the scope of the project to include a new scholarship program under the auspices of the Social Involvement Unit of the Dean of Students. The program ensures that vulnerable seniors in Haifa will continue to benefit from the “Keeping in Touch” initiative.

Over the past year, scholarship recipients worked closely with the Haifa Municipality’s Social Services

to mobilize a group 70 volunteers who are keeping in contact with 100 elderly citizens. “The program is reaching scores of senior citizens who have little to no support from relatives. Students also gain hands-on learning experience in social services management and leadership skills.”

“We aim to double the number of student coordinators by next year to reach a greater number of seniors,” explains Nagler. “We are very grateful to the Office of the Dean of Students and the Raveh Ravid Leadership Program for supporting the pilot project.”

For more information please contact the Office of the President.



Student coordinators from the “Keeping in Touch” program meet outdoors to share experiences and strategies.

The “Keeping in Touch” Program made me more aware of the factors that compound the vulnerability and risks faced by seniors without social support. Our volunteers also taught me that ‘listening ears’ are a valuable part of health and social services. - “Keeping in Touch” student coordinator



(l-r) Liat Epstein and Tamar Nagler’s vision and dedication helped launch the “Keeping in Touch” volunteer initiative.

DID YOU KNOW?

According to the Central Bureau of Statistics, Israel’s senior population is expected to increase exponentially between 2015 and 2035 – 2.2 times faster than that of the general population during this period.



CARMEL-HAIFA UNIVERSITY ECONOMIC CORPORATION



Elka Nir
CEO of Carmel-Haifa
and Carmel Innovations
Funds

LAB TO MARKET

Carmel-Haifa Economic Corporation Ltd. (Carmel-Haifa) is the technology commercialization and business arm of the University of Haifa. The company was founded to protect intellectual property and commercialize innovative technologies and services at UofH by forging strategic agreements with global partners, investors and businesses. Carmel-Haifa launches, supports and accelerates technologies and early-stage startups from the lab to the marketplace. The company's activities also include the promotion of entrepreneurship and innovation across the University's campuses.

Carmel-Haifa is playing a significant role in advancing collaborations with various healthcare institutions and partners in the ecosystem.

NIS 12.5 M

Carmel-Haifa reported a strong year in funds raised in 2020 including its portfolio companies, reaching more than NIS 12.5 M, despite the challenges of COVID-19. The company reached a peak in research funds raised for University researchers from industrial partners, as well as in investments from external funding in its portfolio companies.

+ NIS 2 M

Carmel increased funds raised to more than NIS 2 M in 2020 from the Israel Innovation Authority at the Office of the Chief Scientist, and recorded an increase in the number of applicants to calls for proposals.

NIS 90 M RAISED

Carmel-Haifa raised in the last 7 year a total of NIS ~90 M through its partnerships with global industrial partners, research institutions as well as for Carmel Innovations Funds I and II and its subsidiaries. The company established over 10 subsidiaries and is accelerating startups in fields of biotech, digital health, AI and marine technologies. In addition to seed funding, Carmel-Haifa provides access to laboratory facilities and offers financial, business development and legal support services. Carmel-Haifa's expertise in entrepreneurship and its strategic network to industry partners and sources of funding, play a key role in its success as an accelerator and technology incubator.

SELECTED PORTFOLIO COMPANIES (partial list)



SeaErra Vision provides cutting-edge technology in underwater imaging developed by Dr. Tali Treibitz and team.



ProteKt Therapeutics improving memory functioning in Alzheimer's patients developed by Prof. Kobi Rosenblum and team.



Pine Biotech offering a powerful multi-omics analysis platform (T-BioInfo) to simplify bioinformatics data in drug discovery, developed by Prof. Leonid Brodsky and team.



CanCuRx anti-tumor potential of mushroom-based treatments for cancer developed by Prof. Fuad Fares, Dr. Lital Sharvit and Prof. Solomon Wasser.



MemoBoost cognitive enhancement drugs developed by Prof. Edi Barkai and team.



ARTSaVIT cancer treatment activating a controlled cell-killing mechanism developed by Prof. Sarit Larisch and team.

STUDENT-LED SOCIAL INNOVATION PROGRAM IS TACKLING SOCIAL AND ENVIRONMENTAL CHALLENGES

HIL Academic
innovation and entrepreneurship courses and workshops.

Innovation Nursery
innovative ventures of student teams tackling social or environmental challenges.

HIL Fund
early-stage student-led ventures with access to funding and entrepreneurship mentorship by industry experts.

HIL Sparks
organizing events with an entrepreneurial spirit in partnership with community and industry partners.

Launched just months before the outbreak of the pandemic, Haifa Innovation Labs (HIL) overcame many challenges, especially the limits on face-to-face meetings between students and mentors. Today, the program is thriving and has even been able to accommodate a surge in new initiatives.

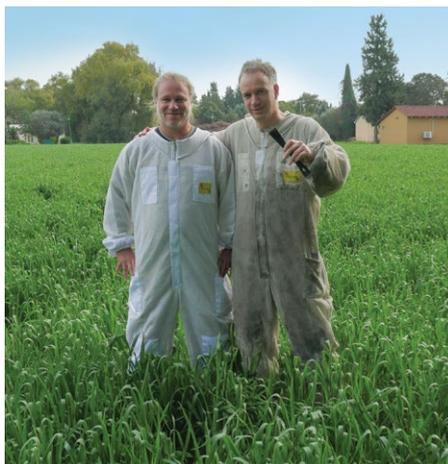
“COVID-19 has pushed both large and small businesses to their limit and underscored the importance of innovation and agility in today’s rapidly changing workplace,” explains Prof. Ofer Arazy, Head of HIL. “Our multidisciplinary approach prepares students for leadership roles in the development of comprehensive solutions to critical social and environmental challenges.”

Students from diverse academic backgrounds have teamed up on a number of tech-savvy business

ideas with a social twist, ranging from “green” apps monitoring air pollution in Haifa neighborhoods, to the installation of aquaponics systems in uncultivated communal spaces of socially diverse neighborhoods as a way to bring people together. Other projects include a virtual reality in Holocaust education program, and a psychodrama-based digital platform for mental health first response.

“Due to the growing interest in the program, we aim to enroll 300 students within the next two years,” notes Prof. Arazy. “We also hope to expand the scope to include training programs for businesses and government organizations in the region.”

For more information about how you can support this project please contact the Office of the President.



Save the Bees founders
Avi (l) and Yaniv Finkelshtein

USING AI TO SAVE THE BEES

Declining bee populations have caused widespread alarm around the globe. Many beekeepers believe that the Varroa mite – a parasite that feeds on bees – is one of the main culprits. Untreated bee colonies usually die within one to two years of Varroa mite infestation.

University law student and software developer Yaniv Finkelshtein has teamed up with Avi, his beekeeper brother, to launch “Save the Bees” – an innovative startup employing AI technology to fight the spread of the Varroa mite. The system employs advanced

STUDENT SPOTLIGHT

image processing technology housed within a sterilized box to assist beekeepers with identifying infected hives. The innovative detection method allows beekeepers to treat bees without the use of harmful pesticides, which can leave chemical residue in honey and beeswax.

The initiative is considered so promising that it won first place in the HIL Fund’s Fall 2020 Entrepreneurship Competition. The company is now in the process of raising seed funding.



PRIZES & AWARDS

ISRAEL PRIZE FOR SOCIAL WORK AND CRIMINOLOGY (2020-21)

**Prof. (Emerita) Ariela
Lowenstein**

Department of Gerontology
*Faculty of Social Welfare
and Health Sciences*

ISRAEL PRIZE IN THE STUDY OF HEBREW LITERATURE (2020-21)

Prof. (Emerita) Nitza Ben-Dov

Department of Hebrew and
Comparative Literature
Faculty of Humanities

EMET PRIZE FOR ART, SCIENCE AND CULTURE (2020)

Prof. (Emeritus) Devorah Dimant

Department of Jewish History
Faculty of Humanities

NAMED HONORARY PRESIDENT OF THE ASIA ASSOCIATION OF PLANT SCIENTISTS (2020)

Prof. (Emeritus) Eviatar Nevo

Institute of Evolution
Faculty of Natural Sciences

INDUCTED INTO THE AMERICAN ACADEMY OF ARTS AND SCIENCES (2020)

Prof. Wendy Sandler

Department of English Language
& Literature
Faculty of Humanities

PRIME MINISTER'S AWARD FOR PROMOTING THE STUDY OF JEWISH COMMUNITIES IN IRAN AND ARAB COUNTRIES (2019)

Prof. (Emeritus) Yosef Chetrit

Department of Hebrew Language
Faculty of Humanities

MIFAL HAPAIS LANDAU PRIZES FOR ARTS AND SCIENCES IN SOCIAL WORK (2020)

Prof. Arie Rimmerman

School of Social Work
*Faculty of Social Welfare
and Health Sciences*

MINISTRY OF CULTURE AND SPORT LIFETIME ACHIEVEMENT AWARD (2019)

Prof. Philip Rantzer

Department of Fine Arts
Faculty of Humanities

GLOBAL DISTINGUISHED HUMANITIES FELLOWSHIP (GDHF 2020)

from the University of Connecticut

Prof. Maoz Azaryahu

Hertzl Institute of Zionism
*Herta and Paul Amir Faculty
of Social Sciences*

UNITED STATES-ISRAEL BINATIONAL AGRICULTURAL RESEARCH AND DEVELOPMENT FUND (BARD) DESIGNATION FOR OUTSTANDING SCIENTIFIC ACHIEVEMENT (2020)

Prof. Tzion Fahima

Institute of Evolution
Faculty of Natural Sciences

MICHAEL HUBERMAN AWARD FROM THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION LIVES OF TEACHERS SPECIAL INTEREST GROUPS (2021)

Prof. Lily Orland-Barak

(Dean of Graduate Studies Authority)
Faculty of Education

ZUCKERMAN STEM LEADERSHIP PROGRAM FACULTY SCHOLARS (2020-21)

Dr. Shani Stern

Sagol Department of Neurobiology
Faculty of Natural Sciences

ZUCKERMAN STEM LEADERSHIP PROGRAM POSTDOCTORAL SCHOLARS (2020-21)

Dr. Ben Strauber

Department of Psychology
*Herta and Paul Amir Faculty
of Social Sciences*

Dr. Silas Dean

Department of Marine Geosciences
Leon H. Charney School of
Marine Sciences

The Israeli Chamber of Information Technology TRANSFORMATION AWARD FOR

MANAGEMENT OF COVID-19

Awarded to the

University of Haifa

MAJOR RESEARCH GRANTS

HELMHOLTZ INTERNATIONAL LABORATORY

Leon H. Charney School of Marine Sciences

jointly with GEOMAR Helmholtz Center for Ocean Research Kiel

Exploring the E. Mediterranean Sea as an early warning model system for our future oceans

> NIS 23.8 M (6 M Euros)

ERC ADVANCED GRANT

Prof. Simone Shamay-Tsoory

Department of Psychology

Exploring interbrain plasticity in interaction-based learning

> NIS 9.8 M (2.5 M Euros)

ERC STARTING GRANT

Dr. Ruthie Abeliovich

Department of Theater

Research exploring Yiddish popular theater at the turn of the 20th century

> NIS 6 M (1.5 M Euros)

EU HORIZONS 2020

Dr. Tali Triebitz

Leon H. Charney School of Marine Sciences

Using AI to improve functionality of underwater robotics

> NIS 2.36 M (600,000 Euros)

EU HORIZONS 2020

Prof. Sara Rosenblum

Department of Occupational Therapy

Health promotion research grant to lead an international consortium

> NIS 1.6 M (400,000 Euros)

NSF-BSF JOINT FUNDING RESEARCH GRANTS

Dr. Tali Mass

Department of Marine Biology and research partner at the Central Caribbean Marine Institute (Dr. Gretchen Goodbody-Gringely)

Research grant towards coral reef research

> NIS 2.6 M (\$820,000)



European Research Council
Established by the European Commission

NOTABLE EVENTS AND ACKNOWLEDGEMENTS



UofH sends largest collection of Israel's indigenous wild wheat and barley seed samples to Svalbard Global Seed Vault - the world's largest collection of agricultural biodiversity



UofH receives FIDF (Friends of the IDF) Impact! Program Merit Badge for consideration of students serving in the IDF Reserve Force





PAYING it FORWARD

for *Vino Tarafó* it's more than a motto
it's a way of life

Vino Tarafó graduated from the University of Haifa with a BA in Human Services (2016) and an MPA in Public Administration and Policy (2018).

As a young child, Vino immigrated to northern Israel with his parents and two younger siblings from Ethiopia. He grew up in an underserved neighborhood in Neshar, where he was no stranger to violence, crime and substance abuse.

“I witnessed people paying a high price for their poor choices. Some ended up in prison while others tragically were killed. I promised myself that if I ever made it out, I would do everything in my power to make a difference.”

ALUMNUS SPOTLIGHT

Vino credits his army service with setting him on his path to success.

“I knew nothing about the outside world until I joined the army. The supportive environment there – one that encourages personal growth and responsibility – changed me. During that time I was also blessed to meet my future wife. She has always encouraged and supported me in achieving my career goals.”



University of Haifa ISEF scholars who served as mentors in the project headed by Vino Tarafa (top row, third from left) in 2015.

After Vino completed his military service, he decided to pursue an academic degree. “The next major turning point in my life was when I was accepted to the University of Haifa and received an ISEF scholarship” he says. In his sophomore year, he created and coordinated a two-year youth mentoring project within the ISEF program that paired UofH students from disadvantaged backgrounds with high school students from low income neighborhoods in Nesher. “I felt great satisfaction and joy knowing that I was helping teenagers from similar backgrounds set meaningful life goals.” Two cohorts of students have graduated from high school with a 97% success rate. “Every year, more and more high school students want to enroll in the program. Word began to spread about what we were doing in Nesher and the program was quickly adopted by other Israeli universities.”

Vino currently directs the Pardes Hanna-Karkur Community Center, where he manages dozens of community and youth outreach programs. He admits that COVID-19 has made the past year extremely challenging, but he has worked tirelessly to bring the community together through online activities, events and food drives.

“An MPA from the University of Haifa provided me with the managerial and leadership skills I needed to improve community life and develop a sense of cohesion,” adds Vino.

“As a public servant, I am deeply committed to increasing social mobility by providing diverse social platforms that encourage children and teens to get involved in local service projects geared towards eliminating social barriers.”

Hundreds of children, youth and adults from disadvantaged backgrounds have benefited from his community-based initiatives and programs. The youth and teen programs still bring Vino a special sense of satisfaction despite being responsible for programs for all ages. He believes that they are the true change agents. “By empowering youth to take charge of their lives and change their circumstances, we hope they will in turn ‘pay it forward’ to the next generation in their communities,” says Vino.



A group of high school students currently participating in the ISEF mentoring program that Vino launched six years ago.

Meet the University of Haifa's 2021 Honorary Doctorate Conferees

who have distinguished themselves by making significant contributions to the advancement of knowledge and learning, have contributed to the welfare of humankind, or whose activities have been of notable benefit to the State of Israel, or the Jewish people.



Prof. Bertil Andersson
SWEDEN

Excerpts from Citation

“In tribute to his pioneering research of the ‘artificial leaf’;... for his inspiring leadership of Nanyang Technological University and Linköping

University... and for his efforts in promoting research collaborations between the University of Haifa and other universities in Singapore and Sweden.”

Prof. Bertil Andersson is a plant biochemist of international reputation and an expert in photosynthesis research. Over the course of his career, he served as Dean of the Faculty of Chemical Sciences at Stockholm University (1996-1999), President of Linköping University (1999-2003), Chief Executive of the European Science Foundation in Strasbourg (2004-2007), Provost of Nanyang Technological University (2007-2011), and as President of Nanyang Technological University (2011-2017). Prof. Andersson also served on the boards of several Swedish and international foundations, including the Royal Swedish Academy of Sciences, the Australian Academy of Science, Austrian Academy of Sciences, and the European Molecular Biology Organization. He was a research advisor to the Government of Sweden and served as the VP of the European Research Advisory Board. Prof. Andersson has a longstanding association with the Nobel Foundation in Stockholm, as a former member of the Nobel Committee for Chemistry, Nobel Foundation, and the Nobel Foundation's Board of Trustees. For his exceptional contributions to science, he received the Wilhelm Exner Medal in Austria and honorary degrees from the University of Edinburgh, Australian National University and the Hebrew University of Jerusalem.

Lawrence S. Bacow is the 29th President of Harvard University. One of higher education's most widely experienced leaders, President Bacow is committed to supporting scholarship and research, encouraging civic engagement, and expanding opportunity for all. From 2001-2011, he was president of Tufts University, where he fostered collaboration and advanced the university's commitment to excellence in teaching, research, and public service. Prior to Tufts, he spent 24 years on the faculty of the Massachusetts Institute of Technology, where he held the Lee and Geraldine Martin Professorship of Environmental Studies and served as Chair of the Faculty (1995-97) and as Chancellor (1998-2001). An expert on non-adjudicatory approaches to the resolution of environmental disputes, President Bacow received an S.B. in economics from MIT, a J.D. from Harvard Law School, an M.P.P. from the Harvard Kennedy School of Government, and a Ph.D. in public policy from the Graduate School of Arts and Sciences. Prior to his election to the Harvard presidency in February 2018, he served as a member of the Harvard Corporation (2011-18), a Hauser Leader-in-Residence at the Harvard Kennedy School of Government (2014-18), and a President-in-Residence at the Harvard Graduate School of Education (2011-14).



Prof. Lawrence S. Bacow
USA

Excerpts from Citation

“In recognition of his distinguished academic career and extraordinary leadership

in the world of higher education; for setting the highest standards for civil discourse and mutual respect based on the traditions of

Emet and Veritas.”

Isaac M. Dabah
USA

Excerpts from Citation

“In tribute to his extraordinary talents and unique business acumen...for fostering moral values, pluralism and an organizational culture promoting a spirit of integrity [within his organization]; ...and for his partnership with the University of Haifa in advancing disadvantaged populations.”



Isaac Dabah is the Chief Executive Officer at GMM Capital LLC, which invests predominantly in apparel companies. A staunch friend of the State of Israel and an active philanthropist, he began investing in Israel, first in Polgat Jeans of Kiryat Gat that he managed to save from closure, and later by acquiring a majority stake in Delta Galil. As the company's CEO, Delta Galil achieved top-line growth, reaching approximately \$1.5 billion in sales, and became one of the world's leading textile companies. At the University of Haifa, Delta Galil established the Delta Program for Academic Leadership in the Ethiopian Student Community. Now in its eighth year, the program provides a full range of academic support and personal mentorship that empowers and encourages leadership among Ethiopian students. Mr. Dabah was recognized as *Businessman of the Year* in 2014 by Israel's leading business newspaper *Calcalist*, and serves on the Board of Governors of Shenkar College of Engineering, Design and Art, and the Peres Center for Peace & Innovation.



Prof. Richard Charles Horton
UK

Excerpts from Citation

“In tribute to his ongoing and vital contribution to the promotion of public health and

wellbeing on a global level ...; for his firm stance on the dangers of global warming [to] human health;... and for his actions in promoting the visibility and status of the Israeli health system...”

Prof. Richard Horton is Editor-in-Chief of *The Lancet*. He qualified in physiology and medicine with honors from the University of Birmingham in 1986. He joined *The Lancet* in 1990, moving to New York as North American Editor in 1993. In 2016, he chaired the Expert Group for the High Level Commission on Health Employment and Economic Growth, convened by Presidents Hollande of France and Zuma of South Africa. From 2011 to 2015, he was co-chair of the UN’s independent Expert Review Group on Information and Accountability for Women’s and Children’s Health. In 2011, he was elected a Foreign Associate of the US Institute of Medicine, and in 2015, he received the Friendship Award from the Government of China. In 2019, he was awarded the WHO Director-General’s Health Leaders Award for outstanding leadership in global health and the Roux Prize in recognition of innovation in the application of global health evidence. He wrote *Health Wars* (2003) about the need to place human dignity at the heart of health care ethics. He has a strong interest in global health and medicine’s contribution to our wider culture. He now works to develop the idea of planetary health – the health of human civilizations and the ecosystems on which they depend.

Prof. Alice Shalvi is an internationally renowned pioneer of the Israeli feminist movement and revered professor of English. Prof. Shalvi founded the English Department at Ben-Gurion University (1969), and served as head of the Institute of Languages and Literatures at the Hebrew University (1973–1975), head of the Pelech High School for religious girls (1975–1990) in a voluntary capacity, and as Rector and later as acting President and Chairwoman of the Executive Board of the Schechter Institute of Jewish Studies (1997–2001). She also served as the founding Chairwoman of the Israel Women’s Network (1984–2000), Israel’s major feminist advocacy organization. Over the course of her career, Prof. Shalvi has received a variety of awards and accolades for her outstanding public service including the President’s Award for Volunteerism for her devoted work in improving quality of life in Israel, and serving as one of 12 inspiring torchbearers at Israel’s 30th Independence Day Ceremony on Mount Herzl. In 2007, she received the Israel Prize for her contributions to education, women’s rights and civil rights. She holds honorary degrees from the University of Judaism, Gratz College, Jewish Theological Seminary of America, Weizmann Institute of Science and Brown University.



Prof. Alice Shalvi
ISRAEL

Excerpts from Citation

“In tribute to her vast and devoted work in the fields of human rights and equality for women in Israel; ... for her profound achievements as founder of the *Israel Women’s Network* ... and for her tireless efforts in the promotion of dialogue between Arabs and Jews.”



Ora Etrog Stibbe
ISRAEL

Excerpts from Citation

“In tribute to her activities as a social entrepreneur in promoting equality, social justice and human rights on a global level, especially among vulnerable populations in developing

countries; ... for her steadfast friendship with the University of Haifa and ...generous support of the International MA in Child Development Program.”

Ora Etrog Stibbe is a psychotherapist, certified instructor in art therapy psychodrama, and a social entrepreneur who supports and volunteers tirelessly to promote and advance social justice and human rights, particularly within disadvantaged populations and developing countries. For over twenty years, Mrs. Stibbe has worked as a therapist specializing in anxiety and depression. Ora and her husband Eytan founded Anatta Ltd., a social benefit company that founded the ‘Adam Campus’ academic and treatment center, serving the population of the mixed Jewish-Arab city of Lod, with treatments of psychotherapy, psychoanalysis, diagnosis and program development for the local educational institutes and communities. The couple also supports a wide range of social interventions, including programs for at-risk-youth (Nirim), day care and after school programs for children of refugees with no Israeli status (Unitaf), and academic programs at a number of Israeli universities. At the University of Haifa, they have generously contributed to the University’s flagship International MA Program in Child Development, which has attracted dozens of professionals from over 30 developing countries. Ora Stibbe is passionate about and has been personally involved with the MA Program for over a decade, making a significant impact on human development while promoting the international standing of the University of Haifa and the State of Israel.

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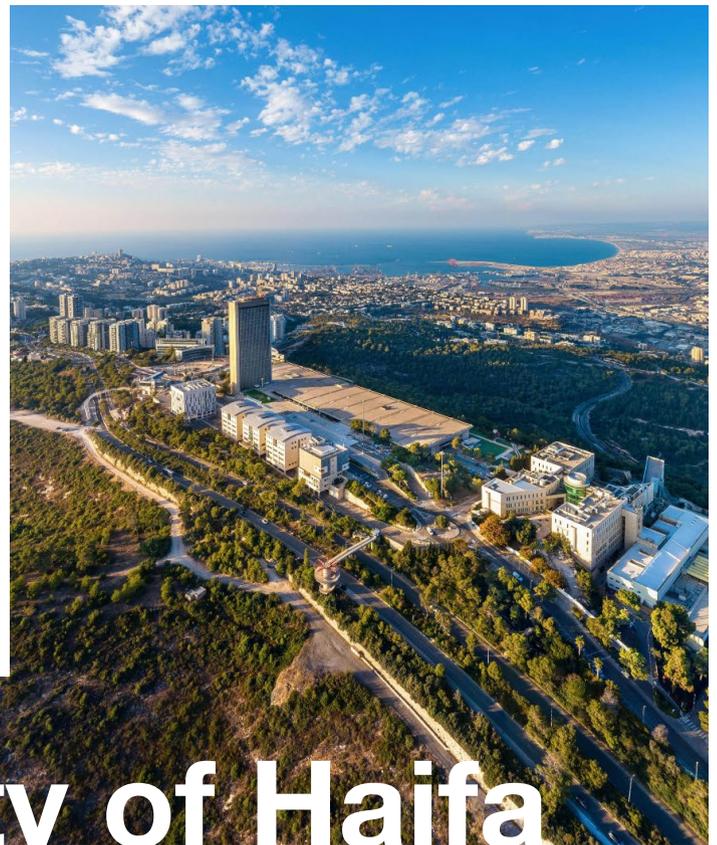
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