

DECEMBER 2014

Newsletter



TEL AVIV UNIVERSITY

The Maurice and Gabriela
Goldschleger School of
Dental Medicine

Founded by the Alpha Omega
International Fraternity

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MESSAGE FROM THE OUT GOING HEAD OF SCHOOL



Dear Fraters and Friends,

In October this year, my 4 years term as Head of the School of Dental Medicine at TAU has ended. This has been a challenging time: planning, struggling, changing and building. My first task was to prepare a new, long term business and academic plan. A plan that would be accepted both by the University and by the Council of Higher Education in Israel. Once presented, approved and adopted, this plan now assures the long term existence and development of the School for many years to come.

After several years during which we were not allowed to admit new students, today, we are admitting 52 new dental students every year and the classes in the clinical years are constantly growing. We have performed significant changes in our curriculum that adapts better to the challenges of the 21st century. We have significantly increased the number of residents in the different fields of the dental profession (prosthodontics, periodontics, endodontics, orthodontics, pediatric dentistry, oral medicine and oral pathology) and the number of graduate students in basic sciences (MSc and PhD degrees) .

New collaborations were set, such as the one with the Tel Aviv Municipality to treat elderly patients and the ones with the Health Insurance Companies in Israel (Kupat Holim Leumit and Klallit Sherutei Briut) to treat pediatric patients and adult patients with complicated systemic conditions. We hope to develop these collaborations further in the near future.

New faculty members were recruited, including researches with a basic science background, who are already establishing new research groups and pushing the research forward.

Not less important are the new Rothstein-Williamowsky Postgraduate Clinics a beautiful, modern, state-of the -art facility, whose construction was enabled through the help so many fraters and friends from around the world. Thank you all! Once this part was completed we are now starting with the second part of this ambitious project - building a modern center for patients with special needs - the Special Care Clinic. Plans are being laid out these days and, thanks to your help, you will soon be able to see this plan become a reality as well.

But above all there is a complete change of atmosphere at the School. Not dwelling any more on the past, the School is bursting with positive energy and activity. With its existence finally assured, we are aiming high! We are aiming at providing the best treatment to our patients, at achieving excellence in teaching and research, at graduating the best dentists who will influence the future health of the Israeli community. With our outstanding faculty - the sky is the limit!

I wish the new Head of School, Prof. Ervin Weiss, and our beloved Dental School a lot of success and thank you all, dear fraters and friends, for your friendship, help and support in the past years.

Prof. Ilana Eli



THE MAURICE AND GABRIELA GOLDSHLEGER SCHOOL OF DENTAL MEDICINE AT TEL AVIV UNIVERSITY (TAUSDM) – FACING THE FUTURE

For nearly a decade, until 4 years ago, TAUSDM existence was uncertain. While its academic excellence was beyond doubt, financial problems caused by the fact we could not (and still can't) charge a realistic tuition concomitant with insufficient governmental subsidy, led to a period of uncertainty during which the existence of the School was threatened. Fortunately, the School survived and used the crisis as a trigger for reorganization, changes and new growth.

As a consequence, and for the first time in Israel, policy makers debated important oral health related issues: What is the desired dentist/population ratio? How many specialists are needed in each of the dental specialty fields to assure that the Israeli citizens get the treatment they need? How many Dental Schools and how many dental graduates are needed to meet the future needs of the Israeli population? What oral health services should be provided to the entire population and at what costs?

The Committee of Higher Education, the Ministry of Health, and the Israeli parliament (Knesset) addressed these issues several times in recent years. Surprisingly, only as late as 2010, the Israeli Government realized, for the first time, how expensive are the real costs of training and educating of a professional, high level, dentist.

Under the leadership of the outgoing Head of School, Prof. Ilana Eli, TAUSDM made a significant turnaround. We should all applaud her many achievements and her outstanding leadership in a very turbulent period.

As I am taking over the position of the Head of School I am committed to continue the TAUSDM strive for excellence. The undergraduate DMD program, the continuing education and the various internship programs will continue to be of the highest academic and clinical standards. Tel Aviv University takes pride in the high-quality teaching and research in the various fields of Life Sciences and Medicine, Exact Sciences and Engineering, Social Sciences, Law, Management, the Humanities, Education and Arts. The University's mandate is to prepare the next generation of scientists and humanists, physicians, attorneys, engineers, musicians and dentists. As stated by our University President, Prof. Klafner: "The quality education students receive at TAU, turns them into high-achieving and socially-conscious leaders of tomorrow."

MESSAGE FROM THE NEW HEAD OF THE SCHOOL

It is time for us, at the TAUSDM, to be part of this vision. It is also the time for the leaders of TAU to embrace the TAUSDM and help us build a brighter future for dental education and dentistry in Israel.

The Maurice and Gabriela Goldschleger School of Dental Medicine is committed to excellence. Excellence in advanced oral health care, excellence in research by which the frontiers of dentistry are advanced, excellence in teaching and education by which the future generations are assured of the highest quality of care and scholarship.

My immediate plans are to strengthen basic & clinical research in all the Schools' departments, promote programs that will enable acquisition of a joint specialization and PhD degrees, attract the best Doctors to become teachers at our School and change the organizational culture to one of research and collaboration.

Another aspect we need to develop at the School is the intramural practice. In order to prevent another potential crisis in the future, the School has to operate not only as an academic institution but also a business entity. Improving customer service, supplying superb dental services to both patients and dental professionals, increasing patient preservation are only some of my goals in this field.

It is not a revolution that I plan, but rather to perform a small change each and every day. Small changes that will accumulate step by step and lead us in the right direction. The direction of excellence.

I am optimistic and I have the deepest faith in our faculty. Together we will lead the School to become one of the top Dental Schools in the world. A School of perfection in teaching, innovation in research and comradery among faculty members.

Prof. Ervin Weiss

THE PROJECT AS SEEN BY THE STUDENTS

For the second year in a row, the “Dental Health” project is active in the Social Involvement Unit at the University, and I am happy to have had the opportunity to volunteer this year. I have been volunteering at Akim; a hostel in Tzahala; Tel Aviv, which houses people with intellectual disabilities. There are many challenges in helping the residents to take care of their dental health, and providing education and resources on the topic of proper care for teeth.

I enjoyed every moment. It was a pleasure to witness the residents’ excitement and interest in the presentations, activities and tasks, and their curiosity to know everything. In addition, it was the first time I was exposed to this population, and I have learned a lot from them. After the volunteering opportunity ended, I was

pleased with the changes that the residents made. Now, they are well-informed about the structure of their mouth and teeth, and are able to take care of their own dental health correctly and independently.

Finally, I would like to thank everyone who took part in this project and accompanied us through this journey: Ms. Miri Dotan, the founder of this project, and Dana Barshavsky of the Unit for Social Involvement. I would also like to extend thanks to Prof. Ilana Eli and Prof. Beny Peretz for their support and encouragement.

WASEEM KHALAILA, 1st student

I wrote a few things about the volunteering.

This experience was an opportunity to get to know the people from Akim, to see sides of them that I had not known previously, or that I even though existed.

Before the meeting with the residents I did not really know how the mentally handicapped cope with life. I had no idea about their daily life and what they feel. Now I believe I have a better idea of how their day passes. What they do and how to approach them.

I feel my volunteering work contributes tremendously to my personality. The first meeting made me feels that the resident is very warm and friendly. They express everything they feel, and that why I felt so comfortable there.

I feel I already established contact with the residents at our first meeting.

My opinion about these people changed. I

know the residents, the represent the greeter part of the mentally handicapped among the population.

I am very proud to be at Akim and to be part of this program that enables me to meet and talk to people. I would not meet without this opportunity.

Eyal Musa, 1st student



Mrs. Miri Dotan with the group of Akim

OPENING UP TO THE COMMUNITY

The “ Health Tooth” project started 18 months ago, and I took part in it right from the beginning.

I am a strong believer in contribution to society and in the importance of volunteering and assisting the less privileged, and this time I wanted to help in a way that I could share my knowhow with others.

Since the beginning of the project I carried out activities at Schools for girls of the underprivileged population, volunteered at a school in a poor socio-economic

neighborhood, and with elderly people with special needs at Akim.

I learned a lot about others from the project, the different strata of society, and I gained a lot of satisfaction, which gives me the power and strength to continue to help others.

Hadi Zalach,
student of Dental Medicine
Tel-Aviv University



A LETTER OF GRATITUDE

Dear Miri,

I wanted to write a few words to express my gratitude for the wonderful project you carried out with us .

Ir Shemesh cluster is a housing project for the mentally handicapped in Tel-Aviv. The cluster comprises a hostel and two apartments and has 23 residents. Most residents are aged fifty and over.

In the course of the project four students of Dental Medicine from the University of Tel-Aviv arrived at our project: Vasim, Yial, Hasan and Yosef. The students provided educational and informational activities to our residents. They sat with them in small groups, and explained about dental health hygiene. This subject is very relevant and important to our residents, who do not always take care of oral hygiene.

The students carried out the activity with a great deal of patience and sensitivity. They instructed the residents and worked with them closely.

Our residents profited a great deal from the activity: they studied, learned and enjoyed. The meeting with the students was of great benefit to them.

We want to thank the students and you for investing your time, thoughts and for your giving.

We will be most happy to continue the cooperation.

Your sincerely

Michal Korem-Witman
Treatment Coordinator- Ir Shemesh



A DAY OF ORAL HEALTH IN THE IDF

It is presumptuous to call the second time a tradition, but we do hope it will become one. It is the second time that the dental school in Tel-Aviv is joining forces with the Dental Branch in the Israeli Air Force General Surgeon Headquarters to celebrate a happening all about oral health.

After the huge success of last year, this year the students of the 5th and 6th year together with the dental hygienist course travelled to Palmachim Air Base, south of Tel-Aviv, to instruct all the officers and soldiers the fundamentals of oral hygiene.

It is the first encounter of the students and hygienists with community dentistry as the course specified for community dentistry is given at the third trimester of the 6th year.



We started the outreach to the community by Dr. Hagay Slutzky, specialist in community dentistry, lecturing briefly on the fundamental of community dentistry and the principles of outreach in the community. A second lecture on dentistry in the IDF was given by Major

Dr. Yehuda Zadik, an Oral Medicine specialist, the Chief Dental Surgeon for the Israeli Air Force. Major Dr. David Minovich, the Head of the Palmachim Dental Department, described the base and its importance for Israel security; we had a chance to view a brief video produced by the IDF spokesman office describing the base and its history and activities.

On the day itself, the students escorted by their instructors from the department of Oral Rehabilitation and the dental hygienist course. We started

with a bus ride, donated by Oral-B, to the base and we setup a happening in a great palace right next to the base mess. There was an impressive dental exhibition of Oral B, Colgate, and S.I.R.A.M/Paro dental products. Officers and soldiers from all over the base



OPENING UP TO THE COMMUNITY

bussed to the happening area. Of course, everybody coming in and out of the mess could not escape the students and the hygienists and had to go to a group teaching on oral hygiene. In addition to the TAU students, the young dental officers from the IDF School of Military Medicine joined the education efforts. An anti-smoking station by

Major Aviad Bar, Head of the Air Force Department of Preventive Medicine, took place in the happening area.

During all through the day Major Dr. David and his staff in the base dental clinic, had appointment free examinations to whoever wished to be examined at the day.

No doubt, this day was a success in creating awareness to oral health for the soldiers and giving the student a taste of community outreach.



DIFFUSION REFLECTION, A NOVEL NON-INVASIVE NANOPHOTONIC METHOD FOR EARLY DETECTION OF ORAL CANCER

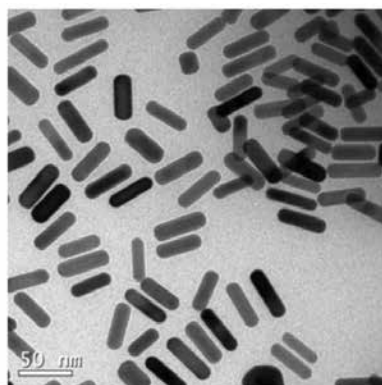
Prof. Avraham Hirshberg of the Department of Oral Pathology and Medicine, along with **Dr. Dror Fixler** from the Faculty of Engineering and the **Institute of Nanotechnology & Advanced Materials** at Bar Ilan University, have developed a novel method for early detection of oral premalignant and malignant lesions. In most cases, oral cancer is preceded by asymptomatic clinical lesions, collectively referred to as oral potentially malignant disorders (OPMDs). To date, only histologic assessment of dysplasia in biopsy material is applied as a predictive test for risk of the malignant transformation.

Based upon Dr. Fixler's early studies, Prof. Hirshberg and his colleagues (Dr. Rinat Ankri from the Faculty of Engineering at Bar Ilan University, and Dr. Ilana

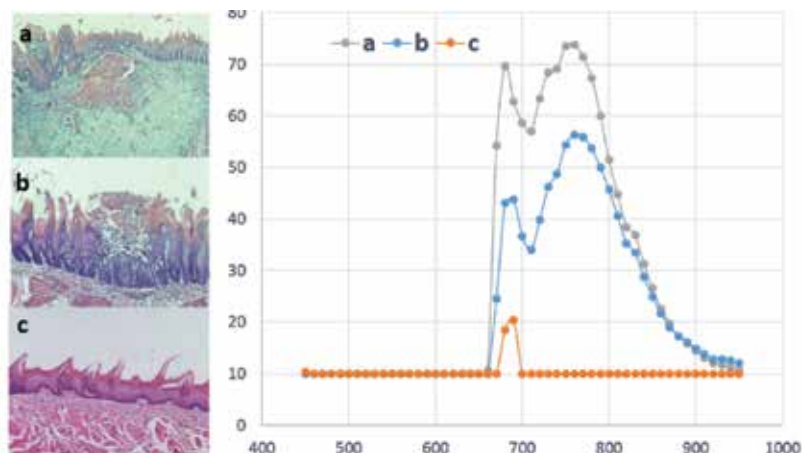
Kaplan from the Department of Oral Pathology and Medicine) introduced a new method for cancer detection based on a nanophotonic method of diffusion reflection (DR) measurement of gold nanorods (GNRs) bio-conjugated to monoclonal antibody against Epidermal Growth Factor Receptor (EGFR). The GNRs exclusively bind to oral cancer cells, which highly express EGFR. Once the bio-conjugated GNRs have been introduced and attached to oral cancer cells, they can be detected following excitation at specific wavelength. The optical set-up includes a near-infrared laser diode as an excitation source. Irradiation is carried out using a 125mm diameter optic fiber to achieve a pencil beam illumination. The system uses portable photodiodes as a photo detector.

In a recently published paper in the Journal of Dental Research the authors evaluated the detection sensitivity of DR measurements of bio conjugated GNRs to cancerous sites in a rat model of oral squamous cell carcinoma. The ability to specifically deliver and target a high concentration of GNRs exclusively to the tumor, significantly change the optical properties of the tumor which then enables early detection of carcinomatous changes.

The results of these studies demonstrate a great potential of the direct DR scanning as a novel non-invasive and simple tool for early detection of oral cancer in daily clinical setting.



Transmission electron microscopy image of the GNRs



Reflectance spectra (IU) and the corresponding histopathology of an experimental rat tongue at week 37. High reflectance at 780 nm was found in areas identified histologically as squamous cell carcinoma (area a) and moderate reflectance in areas of carcinoma *in-situ* (area b). The normal epithelium (area c) found to lack the reflectance spectrum at 780 nm.

MALOCCLUSION IN ANCIENT SKULL: A REFLECTION ON THE ETIOLOGY OF MODERN DENTAL MISALIGNMENT

Rachel Sarig DMD, PhD

Department of Orthodontics,
Maurice and Gabriela Goldschleger
School of Dental Medicine, Tel-Aviv
University, Israel.

Department of Anatomy and
Anthropology, Sackler Faculty of
Medicine, Tel-Aviv University, Israel.

In the field of evolutionary medicine we compare the physiologic condition in ancient populations and trace the changes throughout evolution, in order to understand its origin and causes. Malocclusion and crowding are common in modern populations and often referred to as the “modern human disease” however, it is very rare to find in prehistoric skull remains. It has been suggested that ancient populations had

less crowding and malocclusions due to genetics (e.g., better adjustment between teeth and jaw size) and environmental factors (e.g., attrition). Yet, as the study of occlusion requires an almost intact dentition in both the maxilla and mandible, searching for the ultimate cause of malocclusion is a challenge: relatively little ancient material is available for research on occlusal states.

The Qafzeh 9 skull which is an ‘anatomically modern human’ (AMH) (being the oldest known case, dated to ca. 100,000 years) is unique, as its preserved dentition allowed us to investigate the presence and manifestations of malocclusion.

The aim of this study thus was to examine the occlusal condition in the Qafzeh 9 specimen in light of modern knowledge regarding

the etiology of malocclusion. The research combined the orthodontic department and the anatomy and anthropology department.

We revealed a pathologic occlusion in the Qafzeh 9 skull that probably originated in the early developmental stage of the dentition, and was aggravated by forces applied by mastication. The findings of the current study suggest that malocclusion of developmental origin was already present in early anatomically modern humans and that jaw-teeth size discrepancy could be found in prehistoric populations and is not a recent phenomenon. The results were recently published in a prestige scientific journal (PLOS ONE- public library of science).



BLUE LIGHT ANTIBACTERIAL PHOTOTOXICITY – SHEDDING LIGHT ON A PROBLEM

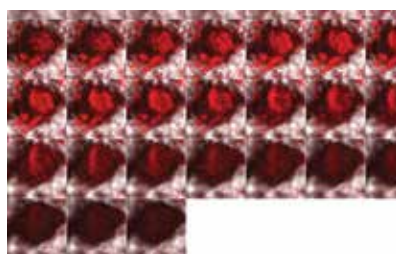
Dr. Nir Sterer

Prof. David Kohavi

Dpt. of Prosthodontics
Goldschleger School of Dental
Medicine
Tel Aviv University.

Most bacterial-induced ailments of the oral cavity (e.g. periodontitis, periimplantitis, caries, halitosis) are associated with anaerobic oral bacteria. These bacteria grow in the inner layers of the mature biofilm. This complex structure comprises bacterial cells and extra-cellular matrix provides both protection and growth conditions to the underlying bacteria.

The protective nature of this growth configuration, as well as the rising problem of antimicrobials resistant bacterial strains, has created the need for revised thinking and new modes of action. During the last decade, various studies have demonstrated the antibacterial phototoxic effect of visible light. It is postulated that



Confocal laser scanning microscopy image of experimental oral biofilm showing anaerobic VSC producing bacteria (in red) situated in the inner layers of the biofilm (Sterer et al. 2014).

the antibacterial effect is mediated by light induced reactive oxygen species (i.e. ROS) formation. One of the observations supporting this premise is that anaerobic oral bacteria were shown to be more susceptible to this mode of treatment.

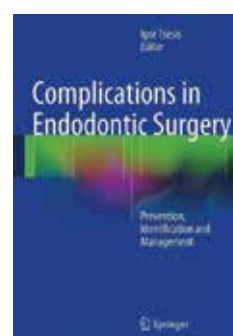
Since oxygen radicals are also potentially harmful to human cells, it is desirable to reduce light exposure to a minimum. This aim could be achieved by the use of photoactive materials such as photosensitizers and photoinducers. In a recent study done in our lab with Dr. Uziel Jeffet and Dr. Ronit Bar-Ness Greenstein has shown that the addition of zinc enhanced the phototoxic effect of blue light and enabled the reduction of light exposure time by 50%. Further studies looking into additional agents and mechanisms are currently on the way.

Dr. Nir Sterer graduated from the Tel Aviv University Goldschleger School of Dental Medicine in 1997. He was awarded PhD in microbiology from the department of Clinical Microbiology and Immunology, Sackler Faculty of Medicine in 2002. The research lab of the department of Prosthodontics houses various research activities carried out by pre- and post graduate students, MSc students and young faculty in the field of biofilm, titanium biofouling and antibacterial agents and phototoxicity.

COMPLICATIONS IN ENDODONTIC SURGERY: PREVENTION, IDENTIFICATION AND MANAGEMENT

Compiled and edited by a faculty member from the Department of Endodontology, **Dr. Igor Tsesis**

This book presents up-to-date recommendations for the prevention, diagnosis, and management of complications in endodontic surgical procedures, based on the best available scientific evidence. Common risks such as wound healing impairment, infection and bleeding are discussed and specific complications related to endodontic surgery, such as maxillary sinus involvement and damage to adjacent neurovascular structures, are reviewed. For each step of endodontic surgical procedures, surgical goals and possible outcomes are reviewed. Preoperative, intraoperative and postoperative risk factors for complications are identified and treatment options presented. Helpful decision-making algorithms, tables and flow charts complement the reader-friendly text.



HYPNOSIS COURSE

In the framework of broadening dentists' skills in the area of behavior sciences, the section of behavior sciences at the Department of Oral Rehabilitation, conducted an extracurricular, interdisciplinary Hypnosis course for dentists, physicians and psychologists. Additionally, dentists and physicians participated in an adjunct course in psychology and psychopathology.

The course was designed according to the curriculum of the Israeli Ministry of Health and constitutes a central prerequisite for receiving a license for implementation of hypnosis in clinical practice.

The course gave participants in deep knowledge of what is hypnosis and how to use it with patients.

The interdisciplinary instructors team included one clinical psychologist (Mr. Yosi Meirson), and two dentists (Dr. Nir Uziel and Dr. Evelyn Weshler) that are licensed by Ministry of Health to teach hypnosis as a scientific field.



Hypnosis course participants and their instructors. Sitting on the first row, from left to right are Prof. Ilana Eli, Dr. Yosi Meirson, Dr. Nir Uziel and Dr. Evelyn Weshler. Behind, standing, are the course participants.

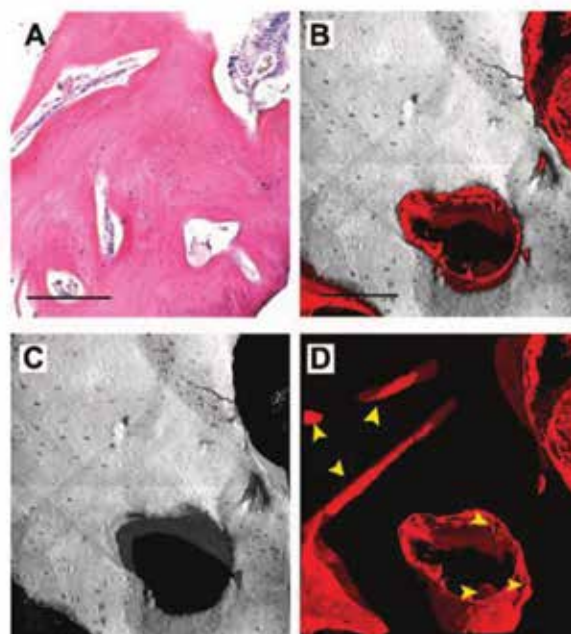
BIOMATERIALS, STEM CELLS AND REGENERATIVE MEDICINE – REPRESENTING ISRAEL IN THE EUROPEAN PROJECT- COST NAMABIO

Dr. Eitan Mijiritsky, a specialist in prosthodontics and a faculty member at the Department of Prosthodontics represented Israel and Tel Aviv University as a Management Committee member at the European Union Project named COST NAMABIO (NAno to MACroBIOMaterials).

COST is an intergovernmental framework for European Cooperation in Science and Technology, and a unique means for European researchers to jointly develop their own ideas and new initiatives across all scientific disciplines through trans-European networking of nationally funded research activities.

The networking action of COST is carried out by meetings, workshops and seminars, schools conferences and common publications.

On 26-29 April 2014, the 3rd Course of Training School COST



Three-dimensional images of human in vivo stem cell-treated mandible. (A): Histological section with hematoxylin-eosin staining, as a reference. (B–D): Subvolume of the three-dimensional (3D) synchrotron radiation-based holotomography reconstruction. To improve visualizations, in each 3D image all phases were deleted virtually, except for bone and vessels (B), bone (C), and vessels (D). Yellow arrowheads indicate portions of vessels to distinguish them from possible artifacts. Scale bars = 250 μm .

Action NAMABIO was took place at the University of Zagreb, Croatia.

The NAMABIO school- which focused on the interdisciplinary research related to biomaterials, stem cells and regenerative medicine of bones and teeth- addressed students, PhD, post-

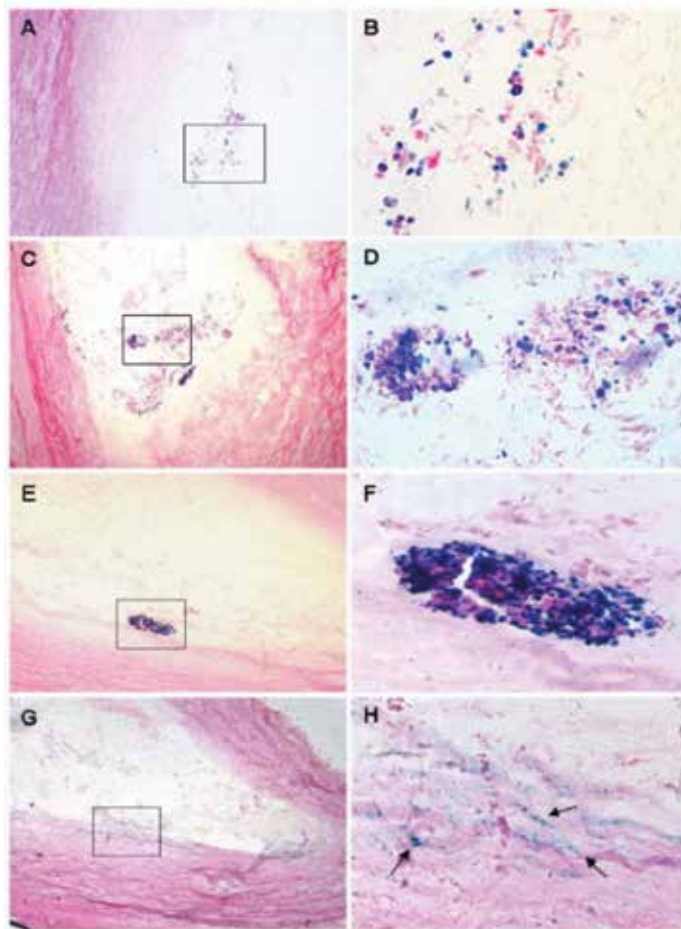
doctorates, young sts and senior scientists.

As a Management Committee member, Dr. Mijiritsky was offered a grant to participate in the meeting. He had decided not to use it for himself- but to offer this grant to one of his students – a 5th year dentistry student.

Luckily, this student was me, and I gained the opportunity- together with 37 other participants from different European countries- to represent Israel, Tel Aviv University and in particular the Maurice & Gabriela Goldschleger School of dental medicine in this trans-European networking

meeting.

The aim of NAMABIO is to coordinate research efforts (often loosely correlated) of several researchers belonging to different disciplines necessary in order to obtain a real breakthrough in areas of regenerative medicine.



In vivo Stem Cell Implantation-from above to bottom- after 3,6,12,24 weeks

Dr. Mijiritsky, as a member of COST, and I on his behalf in this meeting, represent the discipline of the clinicians, who know (unlike any other participants of the school) – what exactly are the practical needs of the dental medicine in this area of research.

For this reason, when on the

1st day of the convention every participant was asked to give a short lecture of his study/field, we decided to present one clinical case on which many characteristics relevant to the convention were applied.

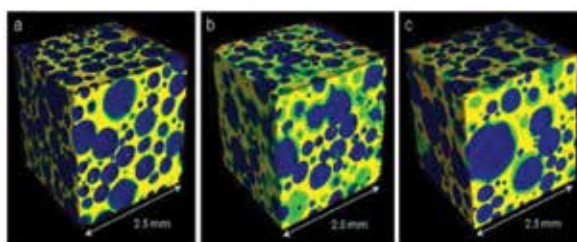
Therefore a case of implants placement on a 43 year old patient

was chosen. The case presented osteotomies, closed sinus lift in MIAMBE (Balloon) approach, the use of PRF (second generation platelet concentrate) and a final placement of bone substitute. All methods that may one day hopefully be replaced by new biomaterials and stem cells based regenerative medicine.

During the training sessions new and ongoing researches, were presented and many relevant and fascinating topics were discussed -Computer modelling and simulation in tissue engineering, Stem cell biology in bone and dental tissue regeneration (in orthopedic applications), and as the final highlight- a full day of lectures concerning stem cells of dental origin.

In conclusion, I received an amazing opportunity to represent our Institute, to learn and to be exposed to new materials, methods and future “scientific dreams”.

Regenerative medicine is a new discipline based on biomaterial development and increasing knowledge of cell science, and it was a mind-opening experience to explore new possibilities- for myself personally and for the profession of dentistry in general.



3D display of sub volume of scaffolds after the implant at 8 (a), 16 (b) and 24 (c) weeks. The images show the new bone (green) onto the inner surface of scaffold (yellow). The other phases (e.g. organic phase) is blue.



By Yael Lerman,
B.Med.Sc, 5th year
dentistry student,
The Maurice
& Gabriela

Goldschleger School of dental
medicine, Tel Aviv University.

AN INTERNATIONAL SYMPOSIUM ON DENTAL SLEEP MEDICINE

Dr. Ephraim Winocur, Coordinator of the Orofacial Pain & TMD Unit and the Department of Oral Rehabilitation, organized an International Symposium on Dental Sleep Medicine. Well-known dentists and physicians from Israel, Canada, France and the USA granted the audience an outstanding comprehensive experience. The scientific program focused on the interface between sleep disorders, bruxism and orofacial pain. The key lecturer was Dr. Alan A. Lowe, Chairperson of the Division of Orthodontics at the University of British Columbia, Vancouver. His lecture dealt with the pathophysiology, diagnosis and treatment options for obstructive sleep apnea syndrome (OSAS), including oral appliances (OA) and use of nasal continuous positive airway pressure (CPAP). Dr. Lowe stated that according to the American Academy of Sleep Medicine OAs are to be used in patients with snoring, mild to moderate OSA and in patients with severe OSA only if continuous positive airway pressure (CPAP) has failed. The second lecture was presented by Dr. Eyal Rosenzweig, an ENT specialist from the Tel Aviv Sourasky Medical Center in Tel Aviv, who presented surgical treatment of the OSA syndrome.

Dr. Rosenzweig claimed that the future of sleep surgery is in the field of neurostimulation. He noted that the surgical approach will continue to be part of a passel where conservative treatments play a major role in treatment of OSA patients. Dr. Bernard Fleury, a specialist in pneumology from Paris, presented the advances of OA as therapy for OSA. Dr. Fleury pointed out the incredible amount of published data which support OA efficacy. Dr. Yaron Haviv, of the Hadassah Hospital in Jerusalem, talked about the two way relationships between orofacial pain and sleep. He claimed that pain enhances arousal and disrupts sleep while sleep deprivation and sleep disruption increase pain sensitivity and vulnerability to pain. Treatment of the one may be beneficial for the other. Dr. Nicolas Bonnet from France talked about the cardiovascular effects of the OSA. Dr. Larry Z. Lockerman, from the Univ. of Massachusetts Medical School talked about occlusal changes caused by anterior repositioning OAs. The lecture referred to the balance of medical needs and management of occlusal changes. The final presentation was by Dr. Ephraim Winocur of the School of Dental Medicine in Tel-Aviv University, who

discussed sleep bruxism, especially regarding issues concerning etiology, diagnosis, dental wear, diet in modern society, attrition, psychological aspects, and treatment.



VISITORS



Prof. Ed Rosenberg visiting the new Rothstein Williamowsky Clinics



Drs. Boubil, Amiach and Cattat, who donated a dental treatment room, with Prof. Ilana Eli.



Prof. Ed Rosenberg & Prof. Ilana Eli



Dr. Andre Amiach with Prof. Ilana Eli



from left to right: Profs Ilana Eli, Keun Woo -Lee & Beni Peretz



The Titelboum family with Prof. Ilana Eli

NEWS FROM THE DEPARTMENT OF ORAL PATHOLOGY AND ORAL MEDICINE

The past year has been intensive in all aspects of the activities at the Department of Oral Pathology and Oral Medicine.

All teaching programs for the undergraduate students have been renewed and updated. New courses have been introduced (e.g., a course in practical pharmacology for the 5th year dental students and an advanced course in oral radiology for the 6th year students), aiming to train our graduates to become leading dental professionals in the community.

Dr. Lazar Katz, in charge of oral radiology studies, is thanked for his initiative to implement a digitalized phosphorus plate imaging system in our Oral Radiology Service. This served as a prototype for the extended digitalized system installed at the new clinics for our postgraduates.

During the May events of the Board of Governors of Tel Aviv University we were honored to host Prof. Ernest Baden, a prestigious pathologist, who has recently joined the Board. The dental students enjoyed a lecture on ulcerative lesions of the oral

cavity that was "spiced up" with historical anecdotes in the unique "Baden" style. Prof. Baden was one of the distinguished guests at the inauguration of the postgraduate clinics. He was also the guest of honor of Prof. Yosef Mekori, the Dean of the Faculty of Medicine, who expressed his gratitude for Prof. Baden's bequest for the advancement of medical research, especially in the field of head and neck cancer.

Prof. Marilena Vered hosted Prof. Baden in the oral pathology laboratory and described some of the recent research performed in the field of oral cancer. He told

the staff how impressed he was by what we were able to achieve with limited resources but maximum perseverance and an unquenchable appetite for science.

Prof. Songlin Wang, the Scientific Director of Beijing Institute of Dental Research and the Vice President of Capital Medical University in Beijing, also visited our department. This was his first visit to Israel. Prof. Wang expressed his interest to cooperate in future research studies and we are looking forward to exploring various possibilities.

Our department pays tribute to Prof. Sol Silverman, who passed



Prof. Baden near the plaque in honor for his support in medical research At Sackler Faculty of Medicine, Tel-Aviv University

WINDOW TO THE DEPARTMENTS

away last August. His scientific contribution has led the field of Oral Medicine and especially that of oral cancer, into the modern era and it will be bestowed to generations to come. He was a close friend of many of the Department's members and especially of Prof. Meir Gorsky, for whom Prof. Silverman was a mentor and a "professional" father. On October 2013, he travelled all the way from San Francisco, CA, USA, to attend an event organized to mark the retirement of the "founders' generation" of our department. Prof. Silverman will be deeply missed by the entire community of Oral Medicine.

Members and trainees of the Department have actively participated in national and international meetings, including those of The Israel Society of Oral Medicine (Bar Ilan University), The Israeli Society for Cancer Research (Haifa), The European Association for Cancer Research (Munich, Germany), The American Academy for Oral Medicine (Orlando, FL, USA), The American Academy of Oral & Maxillofacial Pathology (St. Augustine, FL, USA), The International Association of Oral Pathologists (Istanbul, Turkey), MASCC/ISOO (Miami, FL, USA) and Head and Neck Oncology (New York, NY, USA).

We hope that the coming year will provide even more opportunities to further extend and enrich the activities of the Department.



Prof. Baden (right) in discussion with Prof. Vered, Head of Dep. Of Oral Pathology & Oral Medicine (middle) and Mrs. Solel, Dep. Of External Relation and Resource Development (left)



Prof. Sol Silverman (4th on the right) with the members of the Department of Oral Medicine, October 2013



Prof. Sol Silverman (left), Prof. Joel Epstein (City of Hope, Duarte, CA, middle) and Dr. Noam Yarom (Tel-Aviv, Israel, left) at the American Academy for Oral Medicine (Orlando, FL, USA), April 2014

NEWS FROM THE DEPARTMENT OF ORTHODONTICS

The Department of Orthodontics at Tel Aviv University celebrated two events this year: the retirement of our chairman of 16 years, Prof. Vardimon, and the graduation of the 8th class of the "International Postgraduate Program".

To honor Professor Vardimon's retirement from the chairmanship and 20 years of service to the department, a scientific conference was held at The Peres Center for Peace in Jaffa on September 18, 2014. Professor Drescher of the University of Dusseldorf, Germany was the keynote speaker, giving a full-day seminar entitled: *"Breakthroughs in Orthodontics: Innovative Techniques in*

Skeletal Anchorage and their Clinical Applications". Professor Vardimon also presented a retrospective of many of the research projects he supervised during his tenure.

At sunset, a cocktail reception on the Jaffa beach to the sounds of jazz, provided by Professor Mel Rosenberg's ensemble, was

followed by a Gala dinner at which Prof. Vardimon was honored by speeches given by Prof. Ilana Eli - Head of the School of Dental Medicine, Dr. Nir Shpack - the new Chairman of the Department of Orthodontics, Prof. Miron Lieberman - Former Chairman of the Department of Orthodontics,

then nearly 100 Israeli and foreign students have graduated from the 3.5 year Erasmus program. Highly qualified students have come to our department from places such as Argentina, Australia, Belarus, Bulgaria, Cyprus, England, France, Germany, Greece, Holland, Italy, Luxemburg, Mexico, Portugal,

and Thailand. The Department of Orthodontics at TAU is one of the leading departments in orthodontic research worldwide, with ongoing research being an integral aspect of our curriculum. Lectures are conducted in English and upon completion of all requirements (theoretical studies, clinical practice,

and research) each student earns a "Diploma in Orthodontics", a "Master in Orthodontics", or a "PhD".

The commencement ceremony of the current class was held in the Lola Ebner Auditorium at the Sackler Faculty of Medicine. It was graced by the presence of diplomatic representatives



Dr. Nir Shpack greeting Prof. Alexander Vardimon for his retirement in The Peres Center for Peace in Jaffa

and past graduates from Post-Graduate classes (PG 1-8), many of whom came from abroad especially for this event.

The following day the Graduation Ceremony of the 8th class of the "International Postgraduate Program in Orthodontics" was held. The international program was inaugurated in 1993, and since

WINDOW TO THE DEPARTMENTS

from Bulgaria, Cyprus, Greece and Thailand, who awarded the diplomas to their citizens. Also in attendance were the families of the current graduates, alumni, together with Prof. Aron Shai - Rector of Tel Aviv University, Prof. Ehud Grossman - Dean of the Faculty of Medicine, Prof. Ilana Eli - Head of the School of Dental Medicine, Dr. Nir Shpack - Chairman of the Department of Orthodontics, Prof. Alexander Vardimon - Former Chairman, Department of Orthodontics. Dr. Anastasios Georgiadis spoke on behalf of the current class.

The program of this half-day event included a keynote address by Prof. Drescher from the University of Dusseldorf, Germany, on *"How Skeletal Anchorage has Changed Orthodontics"*. In addition, the new graduates showed off examples of unique cases they treated with a variety of orthodontic techniques they were exposed to during their clinical studies, as well as research projects they conducted.

Dr. Shpack addressed our newest alumni by wishing them success in their professional careers and emphasized their moral and ethical obligations as "Orthodontic Specialists" to themselves and to their communities. He stressed that they must continue to learn in order to stay up to date, and concluded by stating that their studies at Tel Aviv University have not only given them orthodontic skills, but a new circle of friends, as well as a unique perspective

on the State of Israel. They have now been elevated to the status of goodwill ambassadors of the Orthodontic Department, the Tel Aviv University, and the state of Israel.

The Graduation Ceremony was concluded by the traditional "cap tossing" ritual.

Dr. Nir Shpack

Head, Department of Orthodontics.



Dr. Nir Shpack & Prof. Alexander Vardimon with the new alumni in The Peres Center for Peace in Jaffa



The alumni students in the graduation ceremony



The new graduates dressed in the traditional robes and performing the “cap tossing” ritual



NEWS FROM THE DEPARTMENT OF PROSTHODONTICS

The joint clinic operation of the Prosthodontics Department and the municipality of Tel Aviv-Yafo has quietly begun this month.

The clinic was established to take care of the elderly and Holocaust survivors in need.

The reality is that many seniors in the city cannot get basic dental care, mainly due to a poor economic situation. In addition, the complex health condition of the elderly population makes it difficult for ordinary dental offices to offer comprehensive care.

The Department of Prosthodontics, headed by Prof. David Kohavi, joined forces with the Department of Oral Medicine, headed by Prof. Merilena Vered, and created a team of teachers who train doctors to take professional care of the elderly patients. The teaching program consists of practical, didactic and research parts. The treatment activity is held at a municipality facility, within the community where most of the elderly patients live. Beside the facility, Tel Aviv-Yafo municipality provides the auxiliary and administrative personnel.

A contribution received from Mrs. [אופיר מבררת את שם התורמת] San Diego, USA allows for the treatment of about 50 elderly people.

Prof. David Kohavi, who initiated the project, hopes that the clinic will develop and take care of many of these in-need patients, who deserve the best treatment at their age. Moreover, he aims at building a center of excellence that will be involved in developing standards of care for the Israeli elderly population.



Prof. David Kohavi, Head of the Department



Dr. Sima Ofir & Prof. David Kohavi



NEWS FROM THE DEPARTMENT OF PERIODONTOLOGY AND ORAL IMPLANTS

HAS BEEN REVIEWED BY THE ACCREDITATION COMMITTEE OF THE EUROPEAN FEDERATION OF PERIODONTOLOGY

The Department of Periodontology and Oral Implants has recently been reviewed by the accreditation committee of the European Federation of Periodontology (EFP). "This procedure is a final step in a long process towards receiving recognition of our specialty program by the European authorities" say Prof. Haim Tal, Head of the Department and Prof. Zvi Artzi, the Program Coordinator. "This procedure will lead to starting an international program leading to a certificate recognized by the European community."

All the faculty members at the Department are certified specialists, most of them graduated from famous Universities such as Tufts, Wits-Johannesburg, NYU, Emory and Toronto. We are proud however that not less than three professors in the Department are former graduates of our own post graduate program.

The Department is intensively involved in basic and clinical research, focusing on bone regeneration and periodontal wound healing in laboratory

animals and humans. Improving the qualities of regenerative collagen membranes was of special interest to us; these projects received world wide recognition; over the past 10 years representatives of our research team have been invited 3 times to participate in the annual research competition of the European Academy of Osseointegration (EAO). In 2013 Prof. Ofer Moses Dr. Meizi Eliezer, Prof. Haim Tal, Prof. Carlos Nemcovsky and Prof. Miron Weinreb won the EAO *first prize* for basic science research in Dublin, Ireland. Title "*Excessive Degradation of collagen membranes in diabetic rats is associated with increased infiltration of macrophages and capillaries*". Dr. Omer Cohen, Dr. Z. Ormianer, Prof. H. Tal, Prof. M. Weinreb, Prof. O. Moses competed at the 2014 research competition: project entitiled "*Differences in crestal bone to implant contact following under-drilling compared to over-drilling protocol. A study in the rabbit tibia*". In 2006, at the 15th annual meeting of the European

Association for Osseointegration, H. Tal, A. Kozlovsky, C. Nemcovsky, Z. Artzi, O. Moses presented their project "Biodurability of ribose cross-linked and non cross-linked collagen membranes in guided bone regeneration procedures.

It is with much pride that the book "**Bone Regeneration**" have recently scored a record number of electronic downloads with over **50,000** electronic copies sold worldwide. The book (ISBN 978-953-51-0487 ; 346 pages www.Intech.com) was edited by Prof. Haim Tal, and was co-authored by more than 30 contributors from more than 15 academic institutes , with not less than 9 authors from our school; 5 of whom from the Department. The book covers several modalities of bone regeneration including tissue engineering, guided bone regeneration, distraction ontogenesis, and bone grafting. This book concentrates on such procedures that may well be counted among the recent outstanding breakthroughs in bone regenerative therapy.

WINDOW TO THE DEPARTMENTS

The Department is associated with teaching, research and treatment of Periodontal diseases and Implant Dentistry at the undergraduate and postgraduate levels. Theoretic courses and clinical activities aim to provide the graduates with the knowledge and skills required for the diagnosis, treatment plan, and treatment of the periodontal patient as part of the comprehensive treatment required. In the final year all students are involved in integrative clinics in which they enjoy the opportunity to integrate periodontal therapy with the other clinical disciplines such as prosthetic dentistry and endodontics.

Awesome craftsmanship and renovation has recently been completed at the Department of Periodontology and Oral Implants,

this is by a special gift provided by Mr. Serge Goldstein, President of Dental Master LTD. Israel. The Dental Master Maestro collection donated to us, says Prof. Haim Tal, Head of the Department, and the Dental Master Analyzer 3D expert makes the only and most advanced systems that allow the dentist to create the patient centric current

situation and automatically provide most of the treatment options in a fully customized interactive 3D model.

Utilizing the Dental Master Collection will be helpful for both the students and the patients at our Department.



Mr. Serge Gold Presents the System to Prof. Tal and Prof Kozlovsky.

THE NEW ROTHSTEIN- WILLIAMOWSKY CLINICS BECOME A REALITY



Donated by Henry Schein inc., Midmark Corp. and Alpha Omega Foundation USA



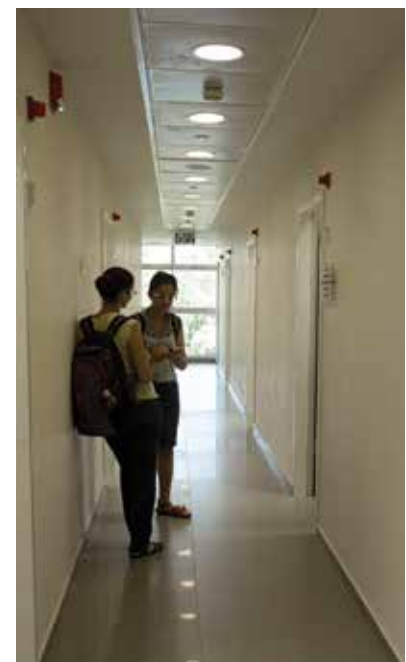
The assistants' stations in the clinic

In May 18th, 2014 we celebrated the inauguration of the first stage of the Rothstein-Williamowsky Clinics - the Advanced Adult Dental Care clinic. 16 modern dental treatment rooms, 3 assistants' stations, spacious patient and faculty lounges, a beautiful garden patio and a technical minilab comprise this outstanding facility. The clinic is occupied by residents in Prosthodontics, Periodontology and Endodontology and dedicated to the treatment of the most complicated cases, such that cannot be treated by

the general dentist. The modern treatment rooms are occupied by the best young dentists in Israel and supply high level treatment to needy patients from all around the country. In order to allow the best conditions to our dentists, all dental treatment rooms are equipped with state of the art equipment, generously donated by Henry-Schein Inc., and Midmark Corp. This outstanding contribution was enabled through the assistance and support of the AO Foundation USA.

The ceremony was very emotional. Prof. Raanan Rein, TAU Vice-President, congratulated the School on behalf of the University, Prof. Ilana Eli, Head of the School talked on behalf of the Dental School and Dr. Marc Rothman on behalf of the AO Foundation USA. Finally, Dr. Ben Williamowsky cut the ribbon and the clinics were officially open!

Having finalized the first phase, we are already working toward completing the Special Care Clinic on the first floor of the Rothstein-Williamowsky clinics. This is a most needed center, especially designated for children and patients with special needs. Work will be starting soon and we hope you will also be able to witness this part of the Clinics become a reality soon.



The faculty lounges in the clinic



Upper picture: One of the 16 modern dental rooms, lower picture: a spacious lounge for patients and the beautiful garden patio.

UPDATED ADMISSION PROCESS TO THE DENTAL SCHOOL



Faculty Staff together with candidate members at the bomb shelter during one of the missile attacks on Tel-Aviv interrupting them in the middle of their interview

In September 2014 the Admission Committee of Dental Studies, headed by Prof. Benny Peretz, convened and decided to update the admission process for candidates for dental medicine studies.. The idea was to select the best of candidates..

The participants in forum were:
Prof. Beny Peretz , Prof. Ilana Eli,
Prof. Rafi Pilo, Prof. Tami Brosh,
Prof. Carlos Nemkovsky, Prof. Israel

Levinstein, Dr. Anda Kfir, Dr. Efraim Winokur, Dr. Eran Dolev, Ms. Yael Keilin , (medicine) Mr Haim Naor and Ms. Nili Garmonov (Secretary Students and Teaching). The forum held weekly meetings to which experts were invited from inside and outside Tel Aviv University.

The most important changes in the project were: the admission process will take place at the School itself and be conducted

by staff members. The entire process was accompanied by the University and granted professional advice by the National Center of Examinations and Assessment (Dr. Orit Eisenberg). Dr. Eran Dolev was appointed project manager.

The main lines of the selection process were based on admission requirements based on graduation and psychometric grades. Following this initial step two stages followed:

In stage 2 the candidates were summoned to a test in chemistry and mathematics (with the gracious assistance of Prof. Michael Gozin of the School of Chemistry at T.A University).

In stage 3 the candidates who had successfully passed the test were invited to 3 independent interviews by the School faculty. 140 candidates who successfully passed the chemistry/mathematics test were summoned. The day of interviews was held at the end of June in the rooms of the post graduates' clinic. Each interviewee was invited to 3 interviews in a row, and indeed, in one day 420 interviews were held of all the candidates. The interviews were carried out by 30 interviewers of the School's staff who had passed a special workshop for this purpose.

Finally, 52 candidates, who received the highest grades at the interviews were admitted.

The entire process was supported by the entire administrative staff of the School. Response to the challenge of this day was most impressive and some of those who wanted to take part in the interviews had to be rejected. It was a festive event and was conducted in an exemplary manner, in spite of the fact that it took place at a time of emergency in the country and during alarms that went off during the day. The academic and administrative staff who took part in this day felt elated and proud and the general feeling

was, as the Head of the School, Prof. Ilana Eli said, that "the school had returned to the days of its glory after the difficult periods in the past."

I am convinced that the new selection process will change the image of teaching at the School and contribute to the training of excellent dentists for the future of dentistry in Israel

Dr. Eran Dolev



Dr. Eran Dolev giving final instruction before the day started.



Waiting with anticipation.



Second and third rounds of missile attacks on Tel Aviv during the interview day: candidates and faculty gathering at the Schools' shelters

PRIZE



Prof. Ilana Eli was awarded the Prize of Outstanding Researcher in the field of Hypnosis for the year 2014. The prize was awarded to Prof. Eli by the Israeli Society of Hypnosis, for her contribution to the promotion of the study and research of clinical and experimental hypnosis in Israel, and for educating generations of dentists, psychologists and physicians to practice hypnosis. The prize was awarded during the annual meeting of the Israeli Society of Hypnosis which took place in May 2014.

APPOINTMENT



Dr. Efraim Winocur was appointed as President of the European Academy of Craniomandibular Disorders (EACD)

ACADEMIC PROMOTION



Dr. Roni Kolerman was promoted to the rank of Lecturer in Periodontology



Prof. David Kohavi was promoted to the rank of Professor in Oral Rehabilitation



Prof. Ilana Kaplan was promoted to the rank of clinical associate professor in Pathology, and Oral Pathology

RETIREEES

FACULTY MEMBERS



Dr. Moshe Gordon



Prof. Zvi Metzger



Prof. Alexander Vardimon



Prof. Taicher Shlomo



Dr. Yakir Anavi

RETIREES

ADMINISTRATIVE STAFF



Dorit Doron

OUTSTANDING WORKERS

During Passover celebration, we distributed certificates to three workers for their admirable job.

For their admirable job. Selected employees for this year were:

Galit Friedman
dental assistant

Hilda Golroch
Dental assistant

Siham Elhen
dental assistant



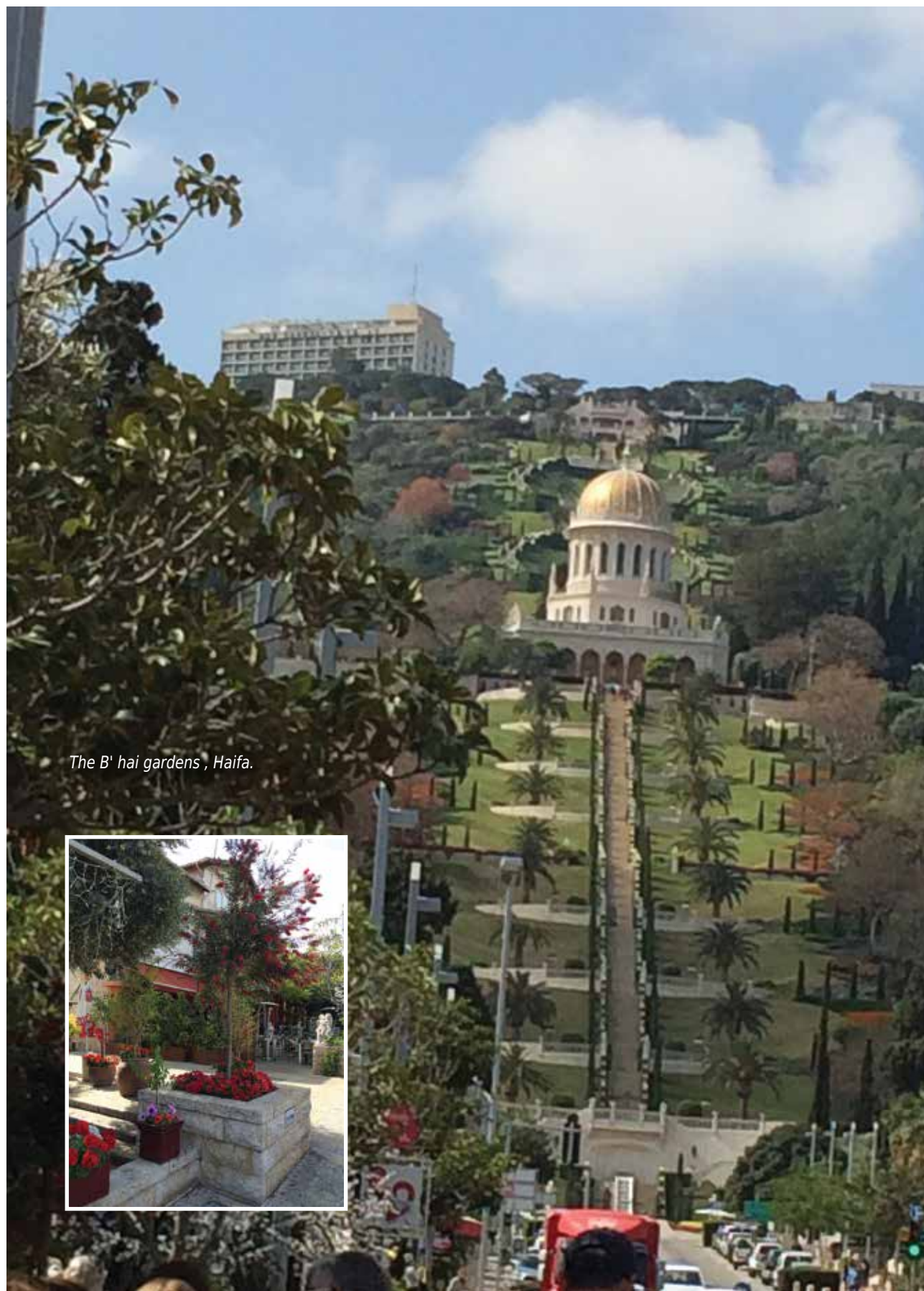
from left to right: Siham Elhen, Haim Naor, Hilda Golroch, Meri Borisovsky and Ilana Eli.

THE CITY OF HAIFA VISITED BY OUR ADMINISTRATIVE STAFF APRIL 2014

The German Colony , Haifa



The School's administrative staff during a tour in Haifa



The B' hai gardens , Haifa.

AO TEL-AVIV CHAPTER RAISES A TOAST FOR THE END OF SUMMER!

Members of the Tel-Aviv Chapter of AO gathered on August 28 for a social event at "Jem's Beer Factory" – a popular boutique brewery at the suburbs of Tel-Aviv. Some 75 fraters, spouses, students and guests attended, making it the largest social event organized by AO Tel-Aviv in years!

The evening included dinner and unlimited beer from the tap, making some of the guests very happy by evening's end. Tel-Aviv Chapter President, Vladi Dvoyris, introduced recent AO activities, plans for the future and the efforts to gather new members into the chapter. We congratulated Prof. Ervin Weiss, elected recently as the new Dean of the TAU Dental School; and greeted our long-time frater, Prof. Ilana Eli, at the end of a very successful term at the Dean's office. Among the speakers were AO President Elect, Prof. Adam Stabholz, and a guest from abroad – Dr. Aron Marcus, Chairman of Alpha-Omega UK.

The crown jewel of this truly fabulous event was the pledge of 15 new fraters – all of them young dentists graduated in the recent few years. Yossi Kassirer, AO Israel Regent, officiated the traditional pledge ceremony, and the newcomers were warmly greeted by all attendees.

All this wouldn't have been possible without the generous support of our key sponsor, Oral-B, and we had the honor of welcoming Maayan Galili, Oral-B brand manager at P&G-Israel, who has become an integral part of our AO family. The support of Oral-B has allowed us to start a range of new and exciting projects, and we hope this collaboration will continue.

Following the official part of the evening and a sumptuous dinner, a lecture about Arik Einstein a famous Israeli singer and his role as the founding father of Israeli rock music was given by Merav Meron-Dvoyris – a musicologist researching popular music, currently teaching at the Open University of Israel. The lecture has received high acclaim among the membership, and with the bar for future AO events significantly raised, we are expecting to celebrate Rosh-HaShanah with a festive meal and wine tasting on September 19th.

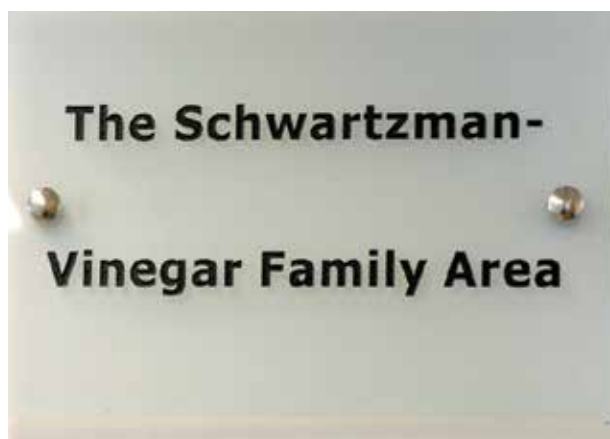
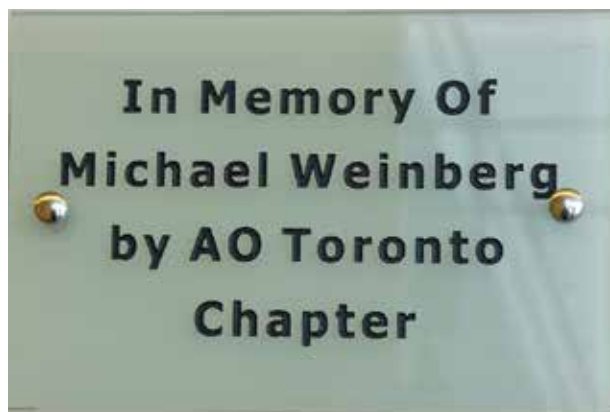


Vladi Dvoyris President Tel-Aviv Chapter and Prof. Ervin Weiss



THANKS

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WITHOUT YOU!



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beloved wife, mother, grandmother and sister.

Donated by Allen Finkelstein DDS, May, 2014

**The Stanley Scherr
Dental Assistant
Station**

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IN MEMORY OF DR. ROGER HODARA,
SPECIAL AWARD FROM THE LYON DENTAL SCHOOL, FRANCE
FROM HIS SPOUSE, HÉLÈNE, HIS SON, ARI,
AND HIS GRANDCHILDREN LEVANA AND ÉLIE





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