IT'S A DIFFERENT WAY OF THINKING, THAT WE ARE HERE TO LEARN FROM EACH OTHER

DR. MIGUEL A. ORTIZ
PROSTHODONTIST, DENTAL TECHNICIAN AND DENTAL PHOTOGRAPHER
Dear IADS Magazine Readers,

I would like to present you this special IADS Magazine number. It is special for a few reasons: firstly, it is a printed issue, participants who are coming to Annual Congress in Tunisia will have an opportunity to get it! Secondly, we have prepared a super interesting interview with Instagram famous dentist, dental technician and photographer Dr. Miguel A. Ortiz in both English and Spanish! Thirdly and most importantly, this is my very last magazine issue as the Editor-in-Chief. I really hope that all this year we have brought to you interesting topics that were also useful in your dental profession. I would like to say a big thanks to my dear Editorial Board members who were with me all this year and survived all my critical comments, bad moods and perfectionism that I always try to seek. You all were definitely the best team I could have, I just hope that whoever is going to be after me, you will stay in the team and help next Editor to achieve what I did not manage.

Sky is the limit, they say, and I believe that even though I will be gone from Editor’s post, next year is going to be even better!

Once again, from the bottom of my heart, thanks to my team and to you, dear readers, that you were with us all this time!

Warm wishes,
Greta Kersyte

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Dear readers,

It is my honour to write the last magazine editorial of my term as President. This really has been an amazing year and I do hope that these IADS magazines have given you a good taste of our team's hard work. In this number you will find a lot of interesting to read about. There is a bit on external events, global health, dental education. But also input from a vast range of our committees such as training, prophylaxis and voluntary work. The glass is never empty when it comes to youth activities. The more we as dental students contribute to our communities, the better the health outcomes will be globally.

As stated in the Lancet Oral Health series, "Oral health can no longer be left behind and requires urgent and decisive action." I urge you all to be the change-makers of a new generation of dentists.

With love,
Ave
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COMMUNITY
During the 21st - 23rd of June Ministers responsible for youth and youth delegates from all over the world with partner organizations such as UNESCO, UNICEF, UN and others have gathered in this historic event organized after 21 years in the capital of Portugal, Lisbon. IADS was invited by the partner organisation International Coordination Meeting of Youth Organisations (ICMYO) to join the meeting and to participate in Youth Forum.

The event was opened with the speeches of Minister of Education of Portugal Mr. Tiago Brandão, President of the Portuguese National Youth Council Mr. Hugo Carvalho, United Nations Secretary - General’s Envoy on Youth Ms. Jayathma Wickramanayake, President of the United Nations General Assembly Ms. María Fernanda Espinosa Garcés and the President of the Portuguese Republic Mr. Marcelo Rebelo de Sousa.
Later the meeting was followed by 3 parallel sessions: Discussion Session, World Conference and Youth Forum. IADS representative, Editor Greta Kersyte had a chance to participate in the 3rd session. The first part of Youth Forum was about Innovation and Digital Transformation with the speakers Ms. Tanya Accone, Senior Adviser - Innovation from UNICEF and Ms. Regina Honu, CEO of Soronko Solutions. As social media platforms are used everyday, they can make a big impact on our way of thinking and could be used as a good tool to spread information to different parts of the world. It is especially relevant to IADS which unites dental students and keeps them connected all the time by using social media channels. Another topic that was discussed in Youth Forum was Sustainable Development by speakers Ms. Rocío Cervera, Deputy Executive Director from North - South Centre of the Council of Europe and Ms. Mourana Monteiro, Climate Change Student Activist from Portugal. In this topic speakers discussed how to incorporate young people and youth-led organisations into the development and creation of national and regional policy as well as 2030 Agenda.

Later after the Youth Forum, the meeting continued with Interactive Session on Youth Policies and Programmes in the framework of the 2030 Agenda. Ministers responsible for youth and youth delegates exchanged views on how each country could improve sustainable development goals. Participation of young people was encouraged in decision making, access to their rights, supporting youth organisations, advancement of international cooperation and involvement of youth in international forums. Last but not least, during the last day of the congress Lisboa+21 declaration was proclaimed. By this document governments and youth delegates promised to commit themselves to actively participating in collaboration and contributing to the further implementation of the integrated, human rights-based, human-centered and transformative global development agendas.

To conclude, Lisboa+21 is a great example of how youth and youth-led organisations could be incorporated into global agendas and policy framework. Young people represent the future, so their participation and collaboration in the implementation of 2030 Agenda is necessary. Thanks again to Richard Francis and organisers of Lisboa+21 for great organisation and inviting IADS be part of a worldwide conference which aims to work together on a better future!

Greta Kersyte
IADS Editor 2018/2019
Zhermack is one of the main producers and distributors of dental materials in the world. This year, they collaborated with the IADS once again. From 9th to 12th of June 2019, they invited dental students to their headquarters in Badia Polesine in beautiful Italy.

Dr. Nicholas Charles greeted us, 10 dental students from 7 different countries, on Sunday evening, June 9th, in Piazza San Marco, the main square of picturesque Venice. We got to know each other better at dinner in the restaurant Rossopomodoro, followed by departure to our accommodation, Hotel Villa Bartolomea.

The next morning, we visited Zhermack headquarters in nearby Badia Polesine. After the mandatory morning espresso, Dr. Nicholas gave us a lecture called “Master Impression: Which? When? How?” We learned everything about alginate, condensation and addition silicones, as well as other factors that are crucial when taking impression, such as retraction, choosing the right tray, undercuts and escape channels. After lunch it was time for hands on - we mastered our master impression skills. Dr. Francesco Grande concluded the first part of the day with a lecture on impressions in implant dentistry. We spent our afternoon in Verona, the city where Romeo and Juliet’s legendary love story took place. After a guided tour and some free time, we spoiled our tasting buds with delicious Italian food and wine in restaurant Maffei.
Besides impression materials, Zhermack also makes hygiene products. The next morning, Dr. Elena Tonini, presented everything about disinfection, sterilization and hygiene in dental clinics. We tested how well we wash our hands and it was interesting to see a before and after under a UV lamp. Afterwards, we had a guided tour of the factory where we saw all the steps of productions – from making the materials from scratch, packing, quality control and product development. We spent our free afternoon relaxing by the pool. For our last dinner we went to Bernardo’s and had some Italian pizza, of course. The next morning, it was time to part our ways. Some took the shuttle back to Venice while some decided to continue exploring Italy on their own.

I would like to thank Zhermack and IADS for this wonderful experience. We got more familiar with dental materials on the market and learned how to make a good impression while enjoying renowned Italian hospitality. Alla prossima!

Written by: Ziva Antolin
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The International Association of Dental Students (IADS) is honored to attend the 97th International Association for Dental Research (IADR) representing the interests of dental students globally. Held in Vancouver, Canada from June 19th, 2019 to 22th, the IADR this year is co-organized with the 48th Annual Meeting of AADR and the 43rd Annual Meeting of CADR with aims to advance research and increase knowledge for the improvement of oral health worldwide. As Dr. Maria Ryan mentioned during her speech at the opening ceremony: “the role of dentist has been constantly evolving with oral health and research advances.” So as an individual who cherish wisdom above anything, we students must be motivated to stay up to date with the advances beyond our school curriculum.

Wun-Ting Lin; the International Scientific Officer of the IADS was a delegate to participate in this year’s IADR. She was given a chance to represent IADS to witness high-quality research presentations and attend professional oral health speeches during the summit. By doing so, she urges IADS; as the leading dental student governed organization to dedicate more in promoting and carrying out relative strategies in oral health.

SCADA (Student Competition for Advancing Dental Research) is a student research competition sponsored by Dentsply Sirona. Thousands of students spent a tremendous effort on their research projects in hopes to win the opportunity to represent their countries. The national champions of dental students research competition from all over the world have gathered together at the IADR in Vancouver, where IADS was given the rare opportunity to present our organization in front of them. Hundreds of companies and well-known universities were present the IADR exhibitions, and IADS is looking forward for more collaboration with them in the future.

CADR, the local hosting, handled IADR 2019 beautifully and successfully. We would also like to take this opportunity to acknowledge the invaluable support from the esteemed FDI World Dental Federation, Dr. Christopher Fox, Dr. Benoit Varenne and Dr. Enzo Bondioni. IADS would not have been able to come along on this amazing journey without their kind support. IADS would also like to send our utmost appreciation to IADR, AADR and CADR for having us, and we look forward to being inspired at the future events!
The importance of the panel discussion was to create a link between the experienced doctors in the field of dentistry outside Iraq and the dental students to find the best solutions for the problems of dentistry education. Also develop the syllabus of the dental education system to become in level with the global education. The vice president of the Iraqi dental association, Dr. Abo Baker, said “He was happy to participate in this symposium and that the (IDA) will spend all efforts to develop the education of dentistry. This symposium is just the beginning! There will be more researches and more symposiums about the dental education system in Iraq until the Iraqi Dental Students Association (IDSA) reaches what all students aspire to have and what makes the dentistry in Iraq at the top level.

The outcome of this symposium was:
1- Try to create workshops on specific subjects like (Infection control & Evidence-based dentistry).
2- Try to find a way to convey the message of dental students in Iraq and the experienced dentists to the ministry of higher education and scientific research to put the starting point for the development of the dental education system.
3- Try to solve the problems of dental education in the Iraqi dental schools and create surveys to know the specific problems that need to be solved.
Building the momentum for oral health

The 72nd World Health Assembly is a high-level global health event held annually in Geneva, Switzerland. This year, the health ministers, youth and professional health organizations gathered under the main theme of “Health for All”.

One of the World Health Organization’s top priorities is aimed towards supporting national health authorities in strengthening health systems to achieve Universal Health Coverage (UHC). This includes covering areas such as health workforce, service delivery and health information systems. This September, the United Nations High-Level Meeting is dedicated to UHC. This event gathering decision-makers and leaders in health aims to ensure a global commitment from countries towards ensuring that “all individuals and communities receive the health services they need without suffering financial hardship” (def. of UHC by WHO).

But how can Oral Health fit into this health policy?

To ensure that oral health is not left behind anymore, we need to involve a large variety of partners and look outside of dentistry and even outside of healthcare. Long-time partners of IADS, the International Federation of Medical Students’ Associations (IFMSA), know the importance of interprofessional teams. Each year, they provide seats from their delegation also to dental, veterinary and chiropractic students. This year, the IADS General Secretary, Abanob Yosry, joined the IFMSA delegation. The IADS President, Ave Põld, was attending the WHA as part of the FDI delegation. The experience IFMSA gives to youth interested in health policy is both educating and motivating but most important is the potential for future engagement it involves. “meaningful youth engagement” towards the Sustainable Development Goals is a focus area for the UN and WHO. Incorporating young people to shaping national policies serves an important role for the future. Building capacity among dental students to work on a national level with other health professions for better oral health is the target area for IADS.
This year’s WHA targeted health workforce and the projected global shortfall of 18 million health workers by 2030. The unequal distribution of oral health professionals contributes to this number together with a lack of appropriate health facilities in most countries. In 2017, the WHO Global Health Workforce Network Youth Hub was established joining together various youth healthcare organizations to prevent the 18 million shortfall from taking place. IADS is one of the founding organizations of the YH and sits on the Steering Committee. During this year’s WHA, the Youth Hub was involved in several side events on HRH matters and also hosted a big event joining together youth representatives present at the assembly. The key discussion areas involved meaningful youth involvement in shaping national policies on health workforce. The YH also encourages interprofessional youth-led research and cooperation on HRH matters, presents data on issues young health professionals face that influence workforce retention and providing health services. As future oral health professionals, it is essential that we get involved in initiatives such as the Youth Hub that allow us to connect with youth from other sectors to contribute to solving workforce issues and take an active role in preventing a severe shortfall of health workers.

Interprofessional teams in healthcare is the key towards patient-centered care and the core element of primary health care. Currently, essential oral care is not included to PHC in most countries, therefore, contributing negatively to the already severely unequal distribution and lack of access to oral care. Based on the definition of UHC, all communities worldwide should receive the health services they need without facing financial hardship. In most lower-middle income countries, vast population groups have no oral care service providers or they lack access to them. In most middle and high-income countries, patients face a financial barrier in access to dental care. These are issues that influence all future dentists, all members of IADS. All countries have problems in context to providing dental care. To achieve optimal oral care to all population groups worldwide, dentists need to work interprofessionally in teams with other healthcare providers. Platforms of engagement that IADS provides such as the World Health Students Alliance and the WHO Youth Hub and others give dental students the opportunity to engage with medical, nursing, veterinary, pharmacy, etc students on local levels to shape the future of health and make the lives of their communities better. It is important for us as dental students to understand that the dentistry of tomorrow stands for global health and collaborates with various sectors involved in healthcare. In order to be knowledgeable about the future, a new generation of dentists will be needed to pave the road. This includes new educational and training models, integration of oral care to primary health care and lowering the burden of noncommunicable diseases (NCDs) through a common risk factor approach.

WHO has declared 2020 to be the year for Nursing and Midwifery. Let’s gather together and invite our global partners to make 2021 the year for Oral Health!
Shaping the Future of Dental Education III: Oral Health from a Global Perspective

Under the thematic approach of ‘Shaping the Future of Dental Education’, the third ADEE/ADEA joint meeting took place this April in Brescia, northern Italy. The congress brought together dental educators worldwide to discuss the current state of dental education, share best practices and look into the future of shaping competent dentists globally.

The EDSA President Alyette GREIVELDINGER and General Secretary Tin CRNIC and the IADS President Ave POLD and General Secretary Abanob YOSRY were present representing the leading youth organizations in dentistry.
The American Dental Education Association (ADEA) and the Association for Dental Education in Europe (ADEE) are two of the biggest associations working on dental education and professional competency. As IADS is aligning an extensive part of its work also to dental education and especially public health oriented competencies, a strong collaboration with both the American and European educators is relevant for us. This term, IADS organized the first panel discussion on Dental Education in the history of our organization with well-known specialists in dental public health participating. The President of the ADEE was also participating as a panelist in our session. A second landmark this year was the survey on “Global Oral Health” in dental undergraduate curricula that was conducted among IADS members. It evaluated the current knowledge and motivation of dental students worldwide regarding global health during their undergraduate studies. This survey received 500 replies from 61 countries and will be used to shape future policy areas relevant to the members of IADS, also involves and introduces the needed reforms in dental education to students and motivates them to conduct research on competencies of graduating dentists relevant on both national and global levels.

**Sessions from “Shaping the Future of Dental Education”**

An introductory keynote lecture was delivered by the WHO Chief Dental Officer, Dr. Benoit VARENNE on the WHO Global Oral Health Programme and dentistry in context with the global health agenda and key policy areas such as Universal Health Coverage and Sustainable Development Goals. This presentation targeted the key advocacy areas IADS is also working on and further confirmed the need for providing dental students with global health competencies already during their undergraduate training.

**The congress featured workshops on 4 main pillars identified essential for shaping dental education:**

1- Assessment in Competency-based Education

2- Engaging with Global Networking to enable global oral health

3- Interprofessional education

4- The impact of scientific technologies and new discoveries on oral health globally

The workshops gave an insight to how dental educators are practically teaching the before mentioned 4 key elements, what are the challenges and potential best methods for building competencies in future dentists. The areas most aligning with the work of IADS were “Global Networking” and “Interprofessional education”. The long-time partnership IADS has with other student healthcare organizations such as IFMSA and IPSF contributes to interprofessional collaboration and aims to encourage IPE on local and national level. Various workshops addressed the issue of a great need for dental professionals to start working in teams with others in healthcare to achieve patient-centered care. The workshop on “Global networking” targeted creating strong networks of collaboration to advance dental education worldwide. Participants shared best practices of global networking and commented on future areas of collaboration. IADS emphasized to the educators present on the need to start collaborating more with youth organizations, also sharing information about projects such as voluntary work programmes, that would contribute to building global competencies of dental students worldwide.

The annual congress of ADEE will take place in August in Berlin together with the yearly meeting of EDSA. IADS will be sending representatives to both events to continue collaboration for shaping a future of competent and progressive dentists worldwide.
IADS Panel Discussion: Developing and Training the New Generation of Dentists

In linkage with our larger educational agenda, IADS hosted its very first educational panel during the Mid-Year Meeting held in Strasbourg, France in March 2019. The panel discussion was focused on dental education and training in context with what is expected from the dental occupation in the future. This expert panel was built up as a conversation between the speakers and students attending. Hereby, I present to you the discussion outcomes of the panel:

I Future of dentistry

The first part of the panel targeted the question, “Where are we now in dentistry and what does the future bring?” Panelists were asked to comment on the core competencies needed for a graduating dentist in the future. Dr. Stephanie Jeannin-Tubert commented from the viewpoint of the ADEE that issued a publication “The Graduating European Dentist: A New Undergraduate Curriculum Framework”. This comprehensive document targets key areas relevant in the training of oral health professionals and could also be used to a larger extent when talking about the education of the global dental workforce. Together with Dr Raman Bedi and Dr Paula Vassallo the main skills needed for a dentist to contribute to patient-centered care are: 1) Management 2) Team-building/Communication 3) Health advocacy skills 4) Adequate technical training.

It is essential as educators to focus on the integration of oral health to general health and this can be achieved through a more public-health-oriented curriculum. Dentists should include patients as team members, not just passive elements as it is happening currently. Dr Bedi also brought out the global responsibilities we, as future health professionals, have; keeping up with developments in digital health and artificial intelligence. Understanding health globally, dentists should be global citizens acting locally for their community.

The panel was asked to comment on the challenges and possibilities of standardizing dental education worldwide. Dr Jeannin-Tubert commented from the side of ADEE that also works on accreditation of dental education in Europe that it is hard to standardize dental education internationally but on the European level ADEE is working on it, quite good guidelines have been established that can be used as an example for other countries and regions in the world when developing accreditation mechanisms. The students from Jordan and Libya brought out that to their knowledge in their countries there is not even a national accreditation mechanism for dental education and due to political issues it is complicated to develop such standardization.

II Promoting health vs treating disease

Dr Vassallo (EADPH) explained how the curriculum of dentistry in Malta is organized so that public health is the core element that guides and accompanies students throughout their 5 years of studies. In this way, the graduating dentists are thinking in a community-oriented way where they truly understand the social determinants, general health in linkage to oral health, know how to provide health consultations to their patients and target the care they provide. At this point, the panelists also turned towards the students with a very simple question, “What was your motivation to become a dentist - was it to provide better health for your patient?”
Just a few hands raised to show that they chose their occupation solely to help people. Other incentives were brought out as a relatively good salary and social status, technical and comfortable career choice. Students also commented that it is difficult for them to see how a prevention-oriented model of care and payment system in dentistry could ever function as students are technically trained to do procedures, not prevention.

A very interesting comment was also made by one student from Italy, where he explained how during their studies and after graduation dental companies are becoming very often the main educators with their materials and courses. The question of who to believe—university or industry is what students very often ask. This is a common mindset of dentists when the industry “wins” customers to their side and in cases where the dental education is very technical and lacks general knowledge on public health and general health education, graduating dentists become technicians who do procedures instead of doctors that see their patients more broadly provide targeted care to them.

In several cases health students’ organizations have taken the role of building capacity among their constituencies on health advocacy and patient-oriented education. This is the case with the partners of IADS such as the international federations joining together medical and pharmacy students. Our youth representative from the International Federation of Medical Students’ Associations, Dr Marian Sedlak, gave an insight to the work their organization has done to target patient-oriented care in healthcare with a focus on multi professionalism and teamwork. IFMSA has been working on social accountability and the transformative education agenda to bridge professions inside healthcare together to provide health for all and support Primary Health Care and Universal Health Coverage. Together with IADS and other healthcare student associations we form the World Health Students’ Alliance where we conduct mutual health promotion campaigns, join our members together on a local level to promote working together for improving health on a community level. Health workforce issues are also central with the WHO GHWN Youth Hub aligning all youth organizations to do targeted work on solving the great global lack of healthcare workers, advocate for decent working conditions and better training to students and young professionals globally.

**III Future workforce**

Based on global prognosis, by 2030 there will be a global shortfall by 18 million health workers and a growing lack of oral health professionals. In this part, we talked about restructuring the dental workforce, also workforce movement and the difficulties we face in creating a sustainable workforce in low-middle income countries.
There are countries where too many dentists are being trained and there are countries where there are almost no healthcare workers to provide oral care to vast communities in need. To solve situations where either too many dentists are being trained or where there is no capacity to train any dentist, alternatives must be found. Dr Bedi gave an interesting example about the University of Liverpool where hygienists, dental therapists and dental surgeons are being trained in a team-based manner working together already during their undergraduate studies. This sort of a system produces hierarchy in the oral care system and prepares students with working on these various levels as professionals. A student from Libya explained how recently there are grave issues with graduating dentists finding jobs due to a growing number of private universities that push the national production of qualified dentists to exceed the country’s need by 9 times. Similar issues with private schools are also happening in other Middle Eastern countries such as Iraq and also several countries in Europe. In India, the overproduction has created a situation where lots of dentists go to study public health but in most countries this is not the case unfortunately. Strengthening health systems is the key when we talk about optimal and functional health workforce. Community-needs, quality of education and accreditation of educational programs all contribute to this. By creating more hierarchy in dentistry so that nurses and dental therapists focus on prevention and basic therapy, a smaller number of highly qualified dentists need to be trained and population needs would be better served as well, especially in low-income settings.

As Dr Sedlak from IFMSA explained- interprofessional education, working in teams, looking also outside of our healthcare sector are all relevant to achieving better health outcomes globally.

The students received valuable information they can take back to their countries on matters discussed, also they will understand and be more knowledgeable in joining the IADS work on dental education, workforce, global health matters, etc. Parts of this report will also be used in our strategic planning for the future work IADS targets on dental education.

We would like to thank the Borrow Foundation for their support in our event.

Written by: Ave Põld, IADS president (Estonia)
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For the third consecutive year, the Lebanese Association of Dental Students hosted an international conference with the engagement of more than four countries (mainly: Syria, Jordan, KSA, Kuwait) in addition to the local participants. Lebanese Association of Dental Students Summer Camp which was held in Beirut Arab University in Beirut from the 16th until the 23rd of June, was as successful as the previous ones.

None the less, 2019 made us -the Lebanese Association of Dental Students- grow our family wider. By family, we do not mean our registered members, nor the people supervising this event; we target the 20 people, who crossed thousands of miles, all filled with ambition to share this once in a lifetime experience.

Lebanon, a 10452 km² country, and Beirut as its capital, is small yet full of life and things to look at. You will never get over its nature regardless the season you’re willing to visit it in. Four festive seasons eclipse around Lebanon all over the year so you can enjoy the bitterness of snow and the breeze of the sun during winter and summer. Lebanon is an Asian country limited by the cost of the Mediterranean Sea on one side and the mountains on the other side. Along the lapsing of seasons there come the feasts that belong to all four religions living on this land celebrating together all year long.

Lebanese Association of Dental Students Summer Camp was a seven-day long compilation of intensive lectures and hands-on workshops but an experience worth forever in several dental disciplines as oral laser, rotary endodontics, dental photography, digital smile design, veneers, orthodontics and finally a live transmission of a crown lengthening surgery. Not to mention that all the scientific program was transmitted and supervised by a group of the best professors and tutors in Lebanon. International Association of Dental Students is always cooperating with the Lebanese Association of Dental Students for activities, so it had a part of the presentations where the participants had a wide idea of the organization, its functionality, missions, visions, future plans and activities.

After the hectic workshop mornings, Lebanese strolls are a must. That’s why, a social program was organized to accommodate the most touristic places in Lebanon. Ain El Mraisseh, Ashrafieh and Gemmayzeh proved that Beirut is the city of endless nights. Next, dropping by Harissa printed a memory of astonishing views and unforgettable sunsets. Also, what made participants even more attached to Lebanon, is the ancient Baalbeck and Jbeil known for their historical heritage. Jeita, which for many years was one of the seven world miracles, was another stop as well.

Farewell time was, as always, our least favorite. As the Summer Camp was coming to an end, we knew that our hard work had paid off and each of the participants, aside from the soft and dental skills, would also pack glimpses of memories and friends which they would forever engrave in their heads. The closing ceremony was bittersweet. After all the fun and shared feelings, certificates were presented to each of the participants and the professors that took part in the scientific program.

Finally, we would like to thank Beirut Arab University, especially our Dean Prof. Dr. Essam Osman for his constant support and everyone who made it all tangible; starting by organizers, sponsors, and most importantly the professors that took roles in presenting or supervising during the scientific program, Dr Rola Abyad, Dr. Mohamad Rayan, Dr. Ahmed Abyad, Dr. Ahmed Tarabaih, Dr. Ehab Feghaly, Dr. Nayer Abo El Saad, Dr. Aly Osman, Dr. Nizar Hazimeh, Dr. Mohammed Rifa'i, Dr. Mohammad Saad, Dr. Mohammed Shokry.

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Day 1

During the conference we were able to participate in the great lectures and also take part in the practical workshops. On the first day we had a chance to enlarge our knowledge in digital workflow in modern dentistry, by comparing the past, present and future possibilities. „The Art and Science of Dental Macro Photography” was a great summary and a guide all-what-you-need to start and improve your photography journey. Those two lectures were presented by very charismatic and passionate dentist from London - dr Simon Chart. After a small break lectures were continued by another great lecturer, straight from China - dr Yan Huang who was talking about „Peri-implant bone quality analyses by using 3D radiographic medical imaging”

Stem cells

„Stem cells are unspecialized cells of the human body. They are able to differentiate into any cell of an organism and have the ability of self-renewal. Stem cells exist both in embryos and adult cells. There are several steps of specialization” [1]

Developmental potency vary and is reduced with each step, which means that for example pluripotent have much higher differentiation ability than unipotent cells. We can distinguish pluripotent, oligopotent, totipotent, multipotent and unipotent stem cells.
Stem cells - invaluable health insurance for the future

Initator of the conference was CEO of Cellivia (Stem Cell Bank Company) - Zuzanna Stern. The founder of the company is mainly focused on building the long-term storage (freezing) of cells in the stem cell bank in Poznań, Poland.

„Stem cells from the oral cavity have a different potential than blood cells. Potential application of Dental Mesenchymal Stem Cells is aimed at the therapy of neurodegenerative diseases, nerve injuries, type I diabetes. They also play an important role in the regeneration of bones and soft tissues - they can be used for personalized bone reconstruction, cartilage and tendon therapies. Long-term stem cells isolated from human dental pulp constitute our invaluable health insurance for the future” - Cellivia

Dr Agustas Pivoriunas from Lithuania, raised the subject which showed us how extracellular vesicles can be a potent modulators of inflammatory response in PDL stem cells. The most controversial and surprising was definitively the lecture „Sinus lift elevation is modern dentistry’s dead science”, by prof. Ioannis P.Georgakopoulos from Italy, who presented us new and ground-breaking method of performing this procedure; which might be revolutionary solution. At the end we had a chance to listen dr Philippe De Moyer, who talked about the „Innovative Surgical Guides” In the afternoon we could relax and integrate with the rest of the participants during the after party at the breathtaking & prestigious venue, where the whole conference took place.

Day II

On the second day, the stage was mostly taken by a great speaker and specialist-dr Kevin Kwiecien from USA, who was charring his broad knowledge about an interdisciplinary approach in airway in the restorative practice. He taught us also about how to plan and organize the occlusion before prepping via very well-documented cases. His last lecture was about how to build the team of your dream and how important is team-centration and integrative systems approach. Dr Bartosz Kempisty from Poland presented a fascinating lecture on „Dental stem cells- from lab bench to bedside” In his presentation, the newest findings from fields of bioengineering and molecular biology based on the results of stem cells isolated from a range of human organs and tissues and also animal model studies, were presented. During his practical workshop we gained more knowledge about human oral cavity stem cells.

Conclusions

The conference was just overwhelmingly impressive, with lots of new informations, solutions and possibilities. Nowadays dental stem cells have many benefits in dentistry, such a pulp revitalization, bone augmentation, PDL treatment or root apexification. Stem cells definitely hold a promise for the future! Lectures provided by leading practitioners were on the worldwide level and gave us a glimpse of the present and possible upcoming findings. The historic venue created a unique atmosphere for the event and the organization of the conference was work out to the finest detail. Me and also few more students, who was representing the International Association of the Dental Students, were honored to participate in this unforgettable conference. Cellivia - thank you for having us!

1. „Stem cells: past, present, and future” Wojciech Zakrzewski, Maciej Dobrzyński, Maria Szymonowicz & Zbigniew Rybak [1]
Germany! Beer, Bretzeln, Kartoffelsalat and Oktoberfest? In my opinion the and of poets and philosophers has much more to offer than just beer festivals and delicious food (by the way, Bretzeln (pretzels), Kartoffelsalat (potato salad) and Oktoberfest are more likely to apply to Bavaria, just one of the 16 federal states of Germany).

Federal Republic of Germany is located in the heart of Europe. The Germany you know today came to existence in October 1990, from the German reunification of BRD (West Germany) and DDR (East Germany). Before that they were separated by the wall. Germany with its 83 million inhabitants extends from the sea on the north to the Alps on the south and therefore has a variety of attractions for each kind of traveler. For example, in summer you can go swimming in the sea (Baltic or North Sea) or enjoy beautiful nature while hiking in the mountains. On the other hand coming for a ski trip in winter might be a thing for you. If you are not all about that, and maybe you are more interested in the culture, architecture and art just spend some great time in the colorful and lively city of Berlin one of the many splendid cities that Germany has to offer. Although, Germany is not considered the most popular holiday destination in Europe, there are some other things Germany is well known for: „German quality“, fast cars and the „German Autobahn“, where you can drive as fast as your car allows you, are just some of the things I would like to mention. Come and try, but don't drink and drive. We are also the country of the strange and long words: Grundstücksverkehrsgenehmigungsverordnung (Land transaction approval transferring responsibilities Regulation) yes, it is one word. Nevertheless „Deutschland“ is the place to be, with the „hard language“ and the angry, but polite people.
Guten Tag!
Wie geht es dir?
Ich hätte gerne zwei Bier.
Lasst uns zum Strand gehen.
Ich freue mich dich bald wieder zu sehen.
Prost!

Hello
How are you?
I would like to have two beers.
Let’s go to the beach.
I am looking forward to seeing you again soon.
Cheers!

**Studying in Germany**

If you meet specific requirements everybody is allowed to study in Germany and there are also a large number of students coming from abroad. To be admitted to dentistry you need to have a very good high school grades. If you meet these requirements, you still have to choose one of the 30 state universities and go through a central selection process. The costs of the study depend on the state and the respective university.

Normally you need to pay a small fee for tuition each semester and you are required to buy materials that you will need for the studies. The study usually lasts 10 semesters (5 years) following 2 years of working as dentist under a supervision of a more experienced colleague, after which you are allowed to work as dentist on your own.

In Germany we have 2 student associations, the ZAD (Zahnmedizinischer Austauschdienst) and the BDZM (Bundesverband der Zahnmedizinstudierenden in Deutschland).

The ZAD is an organization founded by the students for the students and the organization supports German dental students to gain practical experience during clerkship in countries all over the world (from south America, Asia, Africa and India, just to name some of them), but mostly in the countries where the people don’t have access to oral healthcare. If students are interested in improving their practical skills in another country and also want to get to know a new and interesting culture, a program at ZAD is a great way to expand their horizons.

The ZAD does more than organizing clerkships; they also represent the interests of German dental students abroad. As a member of the IADS, ZAD regularly takes part at the international congresses of the IADS.

Beside the ZAD there is another important German organization, the BDZM. BDZM is responsible for the political interests of German dental students. They represent the students on the German political scene and at universities in order to maintain the excellent education level and to seek improvement.
Join the largest educational network in dentistry!
Dr. Miguel A. Ortiz

Dr. Miguel Ortiz is a very talented and renowned dentist worldwide, but did you know that his first steps in dental industry were taken as dental technician? Nowadays he is sharing his passion and knowledge of dental photography and prosthodontics with other dentists through his own courses, conferences and social media. Dr. Miguel Ortiz is also the founder of “Let’s Talk Prosth” which is dedicated to highlighting best practices where the art and science of dentistry intersect.

Dr Miguel Ortiz es un dentista muy prestigioso y conocido en todo el mundo, ¿sabías que sus primeros pasos en la industria de la odontología fueron como técnico dental?
Estos comienzos le han dado una perspectiva diferente de la odontología, la cual plasma en sus fotografías. Otra de sus pasiones junto a la prostodoncia que comparte con otros dentistas en sus cursos, congresos y redes sociales.

Dr Miguel A. Ortiz es también el creador de “Let’s Talk Prosth” (Hablemos de Prost), donde se usa la literatura dental (DentLit) para discutir de forma abierta las mejores prácticas las mejores prácticas odontológicas, el arte y la ciencia.
Firstly we would like to begin with getting to know young Miguel. What were your hopes and dreams? How did you get into dentistry and are you now where you always wanted to be?

As a child, dentistry wasn’t even on my radar. I was fascinated by science and dreamed of becoming an astrophysicist. I come from very humble beginnings in Argentina. The drop out rate in my neighborhood was extremely high; my own parents dropped out in middle school to work and provide for their families. But I always knew I wanted to get a higher education and a great career. I wanted a chance to go all the way to the top of my field, to have a family that I could support and the best life possible.

I attended Universidad National de la Plata in my hometown and started studying biochemistry. After that first year in university the economic infrastructure of Argentina collapsed. Both my brother Carlos, who is a dental technician, and I were forced to leave the country to find work so we could provide for our family. I had to put my dreams on hold.

I moved the U.S. by myself at age 19. I didn’t speak English and wasn’t sure I’d be able to achieve my goals. In a way it was by chance that my first apartment was across the street from Los Angeles Community College. I looked through the open doors and recognized the machines from my time with my brother, so I joined their dental technician program.

I worked in a dental laboratory while attending LACC, then California State University. I was recruited by Harvard Dental School, then the University of Chicago and now here I am, a surgically trained Prosthodontist with the meaningful career I always wanted.

Since I was very young, I believed that hard work and education would take me where I wanted to go. Whenever it felt too hard, that it was taking too long, I would hold on to that belief. It doesn’t hurt that I am very stubborn and nothing stops me.
tener una familia a la cual pueda apoyar y conseguir llevar una buena vida. Así, empecé asistiendo a la Universidad Nacional de la Plata en mi ciudad natal y comencé a estudiar bioquímica. Después de ese primer año en la universidad, la infraestructura económica de Argentina colapsó. Ambos, mi hermano Carlos que es el técnico dental y yo, fuimos obligados abandonar el país para encontrar un trabajo que pudiera ayudar a nuestra familia, especialmente a nuestros padres. Mis sueños tenían que esperar. Me mudé a Estados Unidos cuando tenía diecinueve años, no hablaba inglés y no tenía claro si algún día podría alcanzar mis metas. Por esas casualidades de la vida, mi primer apartamento estaba en la calle de enfrente a Los Angeles Community College. Una Universidad en la cual se pueden cursar clases que son transferidas a Universidades más grandes además de impartir clases de carreras más pequeñas. Un día caminando por los pasillos de la Universidad miré hacia un cuarto y reconocí las máquinas que estaban allí, estas eran las mismas maquinas que mi hermano utilizaba como técnico dental. Era una escuela para técnicos dentales… Me inscribí e Ingresé al programa de técnicos dentales. Dos años cursando todas las noches de 5 a 10 PM. Mientras asistía a este programa, trabajaba durante el día en un laboratorio dental. Ya graduado, completé mi licenciatura en Bioquímica en California State University. Trabajaba de día en el laboratorio dental y, entre caso y caso, me iba a las clases para la licenciatura. Toda una locura. Poco tiempo después, fui admitido en la universidad de Harvard School of Dental Medicine para la carrera de odontología. Posteriormente, por si no fuera poco, decidí hacer un postgrado de tres años en prostodoncia en la Universidad de Chicago. Y llegamos a día de hoy, prostodoncista entrenado en cirugía con esa carrera prestigiosa que siempre había querido tener. Así es la vida, sinuosa, pero a veces te lleva a donde querías, aunque en un principio no lo tuvieses tan claro. Desde que era muy joven, supo que el trabajo duro y la educación me llevarían a buen puerto. Cuando el camino se complicaba, o se alargaba, aguantaba y confiaba en esa creencia. El ser terco a veces ayuda a saber que nada puede detenerme.

2- If you could go back to the past, is there anything you would do differently?

If I could have a DeLorean and go back in time I would. And not only because Back to the Future is the greatest movie series of all time (and it is). There are two big changes I would make in my past life: 1) Wear my retainers after my orthodontic treatment. 2) Pick my battles. I don’t want to change who I am. I will always be someone who fights for their convictions, who isn’t afraid to ruffle feathers, but looking back, I see that some of the conflicts I engaged in weren’t worth it. I would save my energy for the fights that actually matter.
2- Si pudieras volver a tu pasado, hay algo que harías diferente?

Si pudiera tener un DeLorean y volver a pasado, lo haría. Y no solo por que "Volver al Futuro" es la mejor película de todos los tiempos (lo es), pero si pudiera volver cambiaria dos cosas:
1) Usaría los retenedores después mi tratamiento de ortodoncia.
2) Escogería mejor mis batallas. No quiero cambiar quién soy. Siempre seré alguien que pelea por sus convicciones. Alguien que no le tiene miedo a levantar polvo, pero en retrospectiva, veo que algunos de mis conflictos no valieron la pena. Ahorraría mi energía por las batallas que realmente tienen significado, el problema es saber cuáles son.

3- Being a Harvard graduate what are the advantages and disadvantages? How was the experience back then?

There are enormous advantages to my Harvard education. You might think I’m referring to the prestige of the name or the doors it can open, but actually, for me, it was the education itself. It’s a small school, with a class of only 35 and highly qualified, one-on-one instruction from the top educators in the world.

It’s an amazing education, with the same expense of other schools in the beautiful city of Boston which I love. There’s really no downside. Other than the cold winter perhaps.

3- ¿Cuáles son las ventajas y desventajas de haberse graduado en Harvard? ¿Cómo fue la experiencia en aquel entonces?

Hay enormes ventajas que salen de mi educación en Harvard. Puede ser que pienses que me refiero al prestigioso nombre o las puertas que abre; pero en realidad para mí la gran ventaja fue la educación por sí misma.

Es una escuela pequeña, con una clase de solo 35 personas por año. Los profesores son de la más alta calidad, y el trabajo diario con ellos es incomparable.

Es una enseñanza increíble, con los mismos costes que otras escuelas, en una bonita ciudad como Boston la cual yo amo.

Desventajas no hay ninguna, quizás el frío del invier-

4- Did you always want to work in prosthodontics? Why did you choose this specialty?

Going from dental technician to prosthodontist is a natural progression. I actually narrowed it down by ruling out other specialties. I didn’t want to do the same things all the time, so not endodontics. I didn’t want to learn a whole new career after I was done school, so not orthodontics. I care about margins on the crowns, so not pedo. I wanted to treat patients, so not perio. I don’t want to work in a hospital, so not oral pathology. I wanted to have a life during my training, so although I really considered it, not surgery. Prostho-
dontics was everything I wanted at a higher level and none of the things I didn’t. It was a good fit for me.

4- ¿Siempre quisiste ser prostodoncista? ¿Por que escogiste esta especialidad?

Pasar de técnico dental a prostodoncista es una progresión natural. En realidad lo fui perfilando así al eliminar otras especialidades.

No quería hacer lo mismo todos los días, entonces no hice Endodoncia.

No quería aprender una nueva carrera completamente después de graduarme, entonces no hice ortodoncia.

Me importan los márgenes en las coronas, entonces no hice pediatría.

Quería tratar a los pacientes de forma completa y no limitada, entonces no hice periodoncia.

No quería trabajar en un hospital, entonces no hice patología oral.

Quería tener vida durante mi residencia, entonces aunque lo consideré mucho, no hice cirugía. Prostodoncia fue todo lo que quise en un alto nivel y no tenía ninguna de las cosas que no quería hacer, por eso fue fácil elegirla.

5- How do you find motivation to continue working and searching? What drives you?

I am driven by the fact that I know, deeply inside, that the people who came before me did not have the chances I have.

My great-grandparents who worked tirelessly, my grandmother who was a single mother, my own parents who sacrificed their own education, dreams and aspirations time and time again - all to lift up me and my generation. I would not be here if it weren’t for them. If I don’t reach my full potential, I’m disrespecting them and everything they’ve done.

So many people would die to be where I am. It’s a privilege, and I can’t just sit on the couch. Now that I have my own kids, I owe them the same kind of support I was given. I want to show them what is possible.

5- ¿Cómo encuentras la motivación para seguir trabajando y siempre buscando más?:Qué es lo que te impulsa?

Me impulsa el hecho de que mis antepasados no han tenido las oportunidades que tengo yo.

Mis bisabuelos trabajaban incansablemente, mi abuela fue madre soltera, mis propios padres sacrificaron sus educaciones, sueños y aspiraciones una y otra vez, todo para apostar por mi generación y por mí
mismo para que pudiéramos llegar más alto. No estaría aquí si ellos no hubieran hecho todo esto. Si no alcanzo mi potencial completo, sentiría que les fallo a ellos y a todo lo que han hecho por nosotros. Hay muchas personas las cuales les gustaría llegar a donde estoy yo. Es un privilegio y no puedo quedarme sentado en una sofá. Ahora que tengo hijos, les debo el mismo apoyo que recibí yo. Quiero enseñarles que todo es posible.

6- How did you come up with the idea of sharing content on Instagram? Where do you take such interesting and various topics from? How do dentists react to this?

Initially Instagram was a way for me to share my work with others, a confluence of two of my passions – photography and dentistry. Along the way, I realized this had the potential to be more than just pretty pictures, it could be something meaningful. Myself, along with a group of other Instagram pioneers tried to steer the platform away from the aggressive and adversarial tone we saw on Facebook. We wanted to raise the bar for Instagram, making it a community of support; now we share knowledge and allow discussion to flourish in a fun way. I’m proud of all the work we’ve done and continue to do. Negativity is not allowed, haters are not welcome. We don’t always agree, but we do work to protect and help each other.

As for finding topics, that’s the easy part. I’m a practicing dentist, so every day I encounter something new to learn or improve on. I have questions myself and want to do better for my patients. So, I ask questions, I research the literature and I open it up to discussion with my colleagues online. That’s the way I learn. I can’t describe in words the amount of support I’ve been shown. It’s a different way of thinking, that we are here to learn from each other. I’m not here to show off, but to share my journey, acknowledging that I’m not infallible. If you can prove me wrong in a positive way, then I will celebrate that. The response to my approach has been very positive.

6- ¿Cómo decidiste compartir contenido en Instagram? ¿Dónde consigues tantos temas interesantes? ¿Cómo reaccionan los dentistas a esto?

En principio, Instagram para mí fue una manera de compartir mi trabajo con los demás, una confluencia de mis dos pasiones, la fotografía y la odontología. En el camino, entendí que tenía el potencial para ser algo más que solamente un lugar de fotografías bonitas, podía ser algo significativo, con impacto. Junto con un grupo de otros “pioneros” de la odontología en Instagram intentamos llevar la plataforma fuera del agresivo y adversario tono que hemos visto en Facebook, queríamos levantar la barra de Instagram, creando una comunidad de ayuda. Una comunidad en la cual se puedan compartir conocimientos y al mismo tiempo nos podamos divertir. Estoy orgulloso de todo el trabajo que hemos hecho y seguiremos haciendo. La negatividad no está permitida, los haters (las personas que transmiten odio) no son bienvenidos. No siempre estamos de acuerdo en todo, pero trabajamos para protegernos y ayudarnos el uno al otro. Encontrar las temas, esa es la parte fácil. Soy un dentista, en mi trabajo todos los días encuentro algo
nuevo para aprender y mejorar. Me hago las preguntas a mí mismo al querer hacer siempre lo mejor para mis pacientes. Entonces busco mi respuesta en la DentLit, la evaluó de forma crítica y la resumo para una discusión abierta con mis colegas en las redes. Es una manera de aprender muy válida.

No puedo describir con palabras la cantidad de apoyo que he recibido. Es una manera diferente de pensar que estamos aquí para aprender el uno del otro. Mi propósito no es alardear, sino compartir mi viaje sabiendo que soy humano y me puedo equivocar. Si tú puedes mostrarme otra manera de hacerlo, me gustaría saberla. La respuesta de mis colegas ha sido muy positiva, sin dudas.

7- What are your latest achievements? Could you tell us more about your book LIT?

I don’t want to call it achievements, maybe opportunities... of which I have an embarrassment of riches lately. I’ve been working very hard lately to provide my dental photography knowledge to those who aren’t able to attend my courses. With a ton of work from many people, especially my supportive wife, I was able to create the most visually beautiful dental photography book ever made – Lit: The Simple Protocol for Dental Photography in the Age of Social Media. It wasn’t just me so I can’t honestly brag about it. It’s geared toward the visual learner and covers all the fundamentals of photography, portrait taking, a simple 10-minute protocol for intraoral photography, as well as artistic tricks, communication with the laboratory, even lab photography and marketing tips for dental practices.

I’ve also launched a website DentLit.com, which was a huge undertaking. Not only does this have a list of my courses and the products I use myself, but it hosts a free bi-weekly “Let’s talk Prosth” event – subscribers are provided curated lists of scholarly research on the topic I’m discussing online at the time. DentLit will also be launching an online version of my dental photography course in both English and Spanish soon after this article is published. Meanwhile, I’ve started working on my second book already – stay tuned to my social media (@Dr_Miguel_Oritz) for the topic.

Finally, I’m a private practitioner. Working with patients will always be nearest and dearest to my heart. My personal practice is expanding as well right now, so this is a very exciting and busy time for me.

7- ¿Cuáles son tus últimos logros? ¿Nos podrías contar más sobre tu libro LIT?

No quiero llamarlos logros, prefiero llamarlo oportunidades... las cuales han sido muchas en este tiempo. He trabajado muy duro últimamente para proveer mi conocimiento de fotografía dental a la gente que no puede venir a mis cursos.

Con la gran ayuda de mucha gente que me ama, especialmente mi esposa Colleen, pude crear el libro más bonito de fotografía dental que se haya escrito. Se llama Lit: El simple protocolo de fotografía dental en la era de las redes sociales. No lo hice solo, entonces no puedo realmente otorgarme todo el mérito de este. Está orientado al estudio visual y cubre todos los fundamentos de fotografía, los retratos, un protocolo sencillo de 10 minutos de las fotografías intra- orales. También contiene trucos artísticos, comunicación con el laboratorio, fotografía del laboratorio y consejos de marketing para las clínicas dentales. Además he lanzado el sitio web DentLit.com que es un proyecto increíble. No solo se puede encontrar allí una lista de todos mis cursos y los productos que uso, sino que también hay un evento bisemanal gratis que se llama “Let’s talk Prosth” - a los suscriptores les damos una lista de la DentLit más importante sobre el tema que estoy discutiendo online al mismo tiempo. Por otra parte, DentLit también lanzará una versión online de mis cursos de fotografía dental en inglés y español muy pronto.

Mientras tanto, ya he empezado trabajar en mi segundo libro - podréis seguir todas las novedades en mi red social (@Dr_Miguel_Oritz) para saber más sobre el tema. Por último, trabajo en una clínica privada. Trabajar con mis pacientes siempre será lo más cercano y querido de mi corazón. Mi práctica privada también está expandiéndose ahora. Como pueden ver, son tiempos agitados, pero bonitos.

8- Could you share with us the secret for such perfect impressions? What do you think about digital impressions? Which ones do you prefer: regular or digital ones?

This is an easy one to answer. I’ve recently uploaded a free webinar on DentLit.com on Impression Techniques. The key is to understand when to use each one. Both analogue and digital impressions have their place. Digital is the future because of the ease of workflow. It is a vital part of the reconstructive process, but it’s not always accurate enough or might not be indicated. We are a transition generation and need to know both techniques well.

8- ¿Podrías compartir con nosotros tu secreto para esas impresiones tan perfectas? ¿Qué piensas sobre las impresiones digitales? ¿Cuál prefieres más: análogos o digitales?

Eso es sencillo de responder. He subido un webinar gratis a DentLit.com sobre las técnicas de impresiones. La clave es entender cuándo usar cada una. Ambas impresiones, análogas y digitales, tienen sus sitios. Digital es el futuro porque el flujo de trabajo es muy fácil y puede ser repetido con éxito a través del tiempo. Es una parte vital del proceso reconstructivo, pero no siempre es lo suficientemente preciso o indicado. Somos una generación de transición y necesitamos saber bien las dos técnicas.
9- How do you think dentistry will look like in 10-20 years?

I see two areas of huge change on the horizon. The first is dentistry itself. With the dawn digital technology, bonding protocols and conservative dentistry, the future is looking beautiful. I feel very optimistic about that.

The second area is the business aspect of dentistry and that isn’t such a pretty picture. The expense of dental education and outrageous debt load causes desperation in the job search stage. This, and the private practice being changed into a franchise model, often owned by large corporations, may lead to a focus on increasing profit and lowering margins, with dentists as disempowered employees. Obviously, this is something we should be trying to avoid.

10- How to find balance in life and keep with everything?

I don’t think I will know if I have balance until I’m 60 or 70 and my kids tell me they had a good childhood. In the meantime, I ask the people around me to keep me in check. I seek the advice of wiser people who are on a similar path: What works? What they would do differently? Mostly, I try to be very aware of my need for balance.

I’m naturally a busy, high-energy guy. The trick is to direct that toward the things that matter most to me.

9- Cual en tu opinion sobre cómo la odontología va a ser en 10-20 años?

Veo dos áreas de cambio grande en un futuro. En primer lugar, el área de la odontología en sí misma. Con la tecnología digital, protocolos de adhesión y odontología conservadora, el futuro se ve bien. Me siento muy optimista con respecto a eso.

En segundo lugar, es el área de la empresa con respecto a la odontología, la clínica es una empresa, y en cuanto a eso el futuro no se ve tan bonito. Los gastos de educación dental y la deuda con la que uno se ve aquí en USA al acabar la carrera, causa desesperación en el momento de buscar trabajo.

Eso, y las prácticas privadas que son cambiadas a un modelo de franquicia, muchas veces propiedad de corporaciones grandes, puede llevar a un enfoque de aumento de las ganancias y la reducción de costos, con dentistas como empleados sin poder hacer o practicar el tipo de odontología que ellos desean. Obviamente es algo que se debería cambiar o evitar.

10- ¿Cómo encuentras un equilibrio en la vida para poder hacerlo todo?

No creo que sepa si tengo un equilibrio hasta que tenga 60-70 años y mis hijos me digan que han tenido una infancia buena. Mientras tanto, le pido a la gente de mi alrededor que me mantenga sobre la tierra.

Busco el consejo de personas de mayor edad que hayan estado en un camino parecido: ¿Qué funciona? ¿Qué es lo que harían diferente? Siempre intento ser consciente de mi necesidad de equilibrio constante.

Naturalmente estoy ocupado, soy un hombre con mucha energía. El truco es dirigir esta energía a las cosas que tienen mayor valor para mí, mi familia. Pero a veces no es fácil.
11- What are your plans for the future?

I plan to keep practicing, no matter what, so I can keep my skills and knowledge up to date. My relationship with patients keeps me grounded. I never stop learning. Dogma is a temptation to all of us. If I become set in my ways, dogmatic, then I will stop learning.

11- ¿Cuáles son tus planes para el futuro?

Mi plan es seguir practicando, pase lo que pase, así podré mantener mis habilidades y conocimientos al día. Mis relaciones con mis pacientes me mantienen motivado. Nunca paro de aprender. El Dogma es una tentación para todos nosotros. Si me cierro en banda y solo me centro en mis convicciones y me dogmatizo, entonces voy a parar de aprender. Ahí es cuando uno muere académicamente.

12- What advice would you give to young dental students?

Don’t ever give up. Things are going to be hard. It takes work, so much work. Keep going and you will get through it. If you fail a test or mess up, it’s just a small stone on a very long road.

And don’t stop living in the meantime. Go to parties, travel, take the weekend off now and then. You need balance. Life is now

12- ¿Qué consejo podrías darle a los jóvenes estudiantes de odontología?


We would like to thank Dr. Miguel for this interview that resonates so well with both the struggle in real life and the beauty of dreaming and achieving those dreams. We thank him for showing us that there is a way to the top, not only by bedazzling us with shiny trophies, but by walking us through the journey, letting us know we can pave the way to our own top, together.

All that is left, is that we take his advice to heart, his stories to our brain and start climbing.

Queremos agradecer a Dr Miguel A. Ortiz por esta entrevista que refleja tan bien la realidad y el esfuerzo, la belleza de soñar y cumplir sus sueños. Le agradecemos por mostrarnos el camino hacia la cima no solo deslumbrándonos con brillantes éxitos, sino también diciéndonos que podemos lograrlos. Gracias por guiarnos durante este viaje, haciéndonos saber que tenemos que allanar el camino hacia nuestra propia “cima”. Lo que nos queda hacer ahora es tomar en serio sus consejos y con sus historias en la cabeza, empezar a caminar hacia arriba. Sigan adelante!!!
Clinical Case
Greta Kersyte, 4th year dental student
Lithuanian University of Health Sciences, Department of Prosthodontics

61 years old male came to the department of prosthodontics claiming that his old dentures were falling off. Last time he had made any changes to it was 5 years ago. Since then he did not have any dental appointment. Maxilla is edentulous, in mandibular 33 and 43 are present. Tooth 33 has caries lesion. Gingival tissues are healthy. No systemic diseases or allergies were present. Patient is smoking regularly. Old dentures are dirty and do not fit. It was decided to adjust old dentures while patient will be waiting for completely new upper and lower jaw dentures to be made.

Treatment plan:

- Caries treatment of 33 and professional oral hygiene.

- Impression with old dentures to add missing 13, 34, 44 teeth and move clasp from 34 and 44 place to 33 and 43. Both upper and lower jaw dentures relinings were made.

- Impressions with alginate were taken for diagnostic models and to make individual trays.

- Impressions were taken with individual trays using alginate. Before that individual tray excess material was trimmed and borders adjusted with silicone base material.
- Wax rims were placed into the mouth to adjust occlusion, size and shape of dentures using Fox Plane Guide and the patient's interpupillary line and Camper's plane. Bite was registered with bite registration material and sent to the lab. Shade of teeth A3.

- Trial dentures (with wax base) were made to examine prosthesis from a functional and esthetic perspectives. After evaluation dentures were sent to the lab for final processing.

- Final prosthesis was inserted. Patient did not have any complaints. Hygiene of dentures was explained to a patient and asked to come back after a week.

- After 7 days of wearing adjustments to new dentures with carbide cone burr were made. Patient is asked to come back after 6 months or earlier if there are any problems.
Andrea Foros - Victor Babes University of Medicine and Pharmacy - Timisoara, Romania

Greta Kersyte - Lithuanian University of Health Sciences - Lithuania

Aya Khraig - Alazhar University - Palestine
Zeynep Serra Urağ - Hacettepe University, Turkey

Baraa Zargah - Alazhar University Palestine

Designed by: Ibrahim Atya (Iraq)
Fracture Resistance Of The Permanent Restorations For Endodontically Treated Premolars

Galvin Sim, currently a final year undergraduate dental student studying at School of Dental Science, Universiti Sains Malaysia.

Research has been published in European Journal of General dentistry. Volume 7, Issue 3. (Lin GS, Ghani NR, Noorani TY, Ismail NH. Fracture resistance of the permanent restorations for endodontically treated premolars. Eur J Gen Dent 2018;7:56-60)

Abstract
Aim: This study aims to compare the fracture strength, fracture pattern, types of fracture involved, and areas of fractured restoration among endodontically treated permanent lower premolars restored with different restorative materials. Materials and Methods:

Sixty-nine mature human permanent lower premolars recently extracted for orthodontic, periodontal, or other reasons were selected and divided into three groups (n = 23).

Groups 1 and 2 were endodontically treated. Standardized mesio-occlusal distal cavities were then prepared in both Groups 1 and 2. Groups 1 and 2 were restored with amalgam using Nayyar’s core technique and glass fiber post with composite resin core, respectively. Group 3 consisted of intact teeth which acted as control group. All teeth were tested under constant occlusal load until fracture occurred using a Universal Testing Machine. Data analysis was carried out using Kruskal–Wallis test complemented by Mann–Whitney test. Results: The mean values of fracture strength were 388.05 N (±158.09) for Group 1, 588.90 N (±151.33) for Group 2, and 803.05 N (±182.23) for Group 3. Kruskal–Wallis test showed significant differences among all three groups in terms of fracture strength. The mean load required to fracture intact teeth in Group 3 was significantly highest, followed by Group 2 (P < 0.01) and finally Group 1 (P < 0.01).

Most fractures occurred within the coronal structure and were considered favorable pattern. Besides, majority of the fractures occurred on restorations and particularly at the distal side. Conclusions: Teeth restored with fiber post and composite core resulted in higher fracture resistance than teeth restored with Nayyar’s core amalgam restoration.

Keywords: Fracture pattern, fracture resistance, glass fiber post, Nayyar’s core, post and core technique

Introduction
Endodontic treatment is an attempt to preserve teeth with damaged and infected pulp that would otherwise be lost or removed. Endodontically treated teeth are generally weaker and prone to fracture, especially when one of the marginal ridges is lost by extensive caries, trauma, and restorative procedures. [1],[2] The prognosis of endodontically treated teeth is expected to increase if the material used to restore the tooth can enhance its structural integrity. In addition, to ensure a successful outcome afterendodontic treatment, adequate coronal seal plays a very crucial role.

[3] For posterior teeth, amalgam is still considered one of the first choices of restorative material due to its strength and ability to withstand high masticatory load. A technique called Nayyar’s coronoradicular stabilization using amalgam in endodontic treatment has been introduced in 1980 which was proven to increase the fracture strength of root canal-treated teeth. [4] However, this is contradictory with several studies which revealed that endodontically treated teeth filled with amalgam as final restoration experienced a higher fracture rate, which eventually reduced the long-term survival rate of endodontically treated teeth. [5],[6],[7]

Nowadays, fiber-reinforced polymer posts have been introduced and are used to restore root-filled teeth as an alternative to custom-fabricated cast alloy posts and core or prefabricated alloy posts. [8] The main advantage of these posts is their similar modulus of elasticity to that of root dentine. Thus, the occlusal forces are evenly distributed providing higher fracture strength to weakened tooth, especially in an extensive mesio-occlusal distal (MOD) cavity. [9],[10],[11] Besides, the placement of post also significantly influences the fracture strength and reduces the failure risk of an endodontically treated tooth when minimal cavity walls are left. [12],[13] Many unresolved controversies regarding the best dental material to restore a root-filled tooth to increase the fracture strength still exist. Some researchers debated that the use of resin composite showed better fracture strength in root canal-treated teeth compared to conventional amalgam restoration, [7],[14] whereas some denied and mentioned that there was no significant difference in terms of fracture strength among teeth restored with amalgam and composite resin. [15] Therefore, the purpose of this in vitro study was to determine the most adequate permanent restoration by comparing the fracture strength, fracture pattern, types of fracture involved, and areas of fractured restoration among endodontically treated permanent lower premolars restored with different restorative materials.
Results

Table 1: Fracture strength (n) analysis with comparison among groups using Kruskal-Wallis and Mann-Whitney test

<table>
<thead>
<tr>
<th>Group</th>
<th>#</th>
<th>Mean</th>
<th>SE</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Kruskal-Wallis (P)</th>
<th>Mann-Whitney test results (P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22</td>
<td>108.96</td>
<td>91.25</td>
<td>72.76</td>
<td>133.12</td>
<td>864.86</td>
<td>0.000**</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>384.90</td>
<td>117.25</td>
<td>153.12</td>
<td>584.75</td>
<td>864.86</td>
<td>0.000**</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>652.95</td>
<td>182.25</td>
<td>373.25</td>
<td>973.17</td>
<td>1249.09</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

**Kruskal-Wallis test:** Group 1—Nayyar’s core amalgam, Group 2—Fiber core composite, Group 3—Structural core composite; SD—Standard deviation.

Figure 1: Bar chart showing fracture pattern among three groups

Figure 2: Bar chart showing areas of restoration fracture in Groups 1 and 2

Figure 3: Bar chart showing types of fracture involved in Groups 1 and 2

Discussion

Lower premolars are less functional compared to molars and not that significant in terms of esthetic compared to incisors and canines. According to a study, lower premolars experienced less frequency of cuspal fracture compared to upper premolars.[16] However, it is still important to retain the lower premolars in the dental arch as they aid in mastication and prevents supraperuption of maxillary unopposed teeth; however, to a certain extent, it is somehow useful in forensic odontology as the accuracy of using lower premolars in age estimation is relatively high.[17] In this in vitro study, an MOD cavity preparation was done which also shows comparable situation with other laboratory studies.[18],[19] Surprisingly, the results of the present study indicated that endodontically treated lower premolars with Nayyar’s core technique amalgam restoration showed significantly lower fracture strength than the other two groups. One of the reasons could be the lack of bonding of the dental material with the tooth structure.[5],[6],[14],[20] Amalgam itself does not adhere to the natural tooth structure; therefore, a proper cavity preparation with specific dimensions is required to add in the retention and resistance of this restoration. On the other hand, with the use of acid etching and dentin-bonding agent, composite resin forms micromechanical bonding with the dentinal wall of the tooth which makes the tooth structure stronger and less prone to fracture by creating a better marginal seal.[5],[6] Many studies revealed that strength and rigidity of a tooth structure are not improved by amalgam restoration.[6],[20] Besides, in a cavity with MOD preparation, most of the tooth structures were removed which increased the risk of marginal fracture and amalgam will act as wedge between the buccal and lingual cusps of the premolars.[21],[22],[23] For these reasons, teeth restored with fiber post and composite in Group 2 experienced a higher fracture strength than those in Group 1. Group 3 showed the highest fracture resistance in our study which proves that structural integrity due to higher amount of remaining tooth structure plays an important role in terms of fracture strength.

Inevitably, a root canal-treated tooth is weakened mainly due to loss of tooth structure by extensive caries, trauma, and restorative procedures,[1],[2],[14] and in this study, glass fiber posts followed by composite core were used to replace the lost tooth structure in one of the experimental groups. Glass fiber posts were used in this study because they have modulus of elasticity similar to that of root dentine,[24] which allows it to dissipate major loading force on the restoration while leaving minimal force on the dentinal wall. Besides, several studies mentioned that the placement of post in endodontically treated tooth with minimal cavity walls left can significantly influence the fracture strength and decrease the failure risk of endodontic treatment.[12],[13] However, based on some studies, the placement of post will not enhance the strength of an endodontically treated tooth to the same level as an intact tooth.[25],[26]
This is in agreement with our study as most of the tooth structure was removed due to extensive MOD cavity preparation which makes teeth in Group 2 to demonstrate a lower fracture resistance than the intact teeth in Group 3. Therefore, the decision on post placement in a root canal-treated tooth should be based on the amount of remaining tooth structure. There was no significant difference in terms of fracture pattern among the three groups in our study. Most of the teeth experienced favorable fracture which is fracture within the coronal structure. This can be due to the angle of loading force we used in this study which was parallel to the long axis of the tooth. However, if the angle of load application to the long axis of tooth is reduced, higher rate of unfavorable fracture pattern might be expected which was reported in several studies.[27],[28],[29]

The current results revealed that premolars which were endodontically treated with Nayyar’s core amalgam in Group 1 experienced higher fracture rate on the restoration than the tooth structure itself. Amalgam which does not bond to enamel and dentine may have less area of microcontact with the tooth surfaces and causes high occlusal load to be distributed on the restoration.[6],[14],[20] When a constant force is applied occlusally to the amalgam, it will distribute equally to all surfaces which are in contact. Therefore, under a constant force, the smaller the area of contact between amalgam and tooth structure, the greater the pressure exerted on the restoration, which eventually leads to fracture of the restoration itself. On the other hand, composite resin which forms micromechanical bonding with tooth structure allows force to be equally distributed between the restoration and the tooth itself. This explains the reason that group restored with post and core composite demonstrated higher fracture strength and probably caused a different failure pattern than those restored with Nayyar’s core amalgam.

Furthermore, majority of the fractured restorations occurred at the distal side in the current study and showed no significant difference between both Group 1 and Group 2. This could be attributed to the crown morphology of the lower premolars. Lower premolars have a distal fovea which is more lingually displaced than at the distal area.[30],[31]

Since there was no simulated periodontal ligament in this study, the results cannot be directly extrapolated to clinical situation. Therefore, more in vivo studies and clinical trials are needed to obtain more clinically relevant and valid results.

**Conclusions**

Within the limitation of this study, it can be concluded that the best result was demonstrated by teeth restored with glass fiber post and composite core. Although amalgam was the strongest material used in this study, teeth restored with Nayyar’s core amalgam had significantly lower fracture strength as compared to natural teeth and teeth restored with glass fiber post and composite core. All groups show favorable fracture pattern which is fracture within the coronal structure.

**References**

Introduction

Laminate Veneer is simply defined as a thin labial plate of cosmetic material retained by cement through etching and bonding. It is considered a conservative alternative to full coverage restorations, in order to increase esthetics and preserve as much intact tooth structure as possible. It is of high importance to mention that the tooth should have at least 60% of sound etchable enamel to allow proper bonding to tooth structure.

Types of laminate veneers:

We have **direct veneers** and **indirect veneers**. Direct veneers are those added directly to prepared facial surface of the teeth using resin composite materials. Being done in a single visit, lower cost as compared to indirect ones and them being repairable are the main advantages for direct veneers, however, they have drawbacks like being time consuming, the need for a skilful dentist, low wear resistance and low color stability.

The other type, which is Indirect veneers, are laboratory fabrication ones. They maybe Acrylic, resin Composite or Ceramics.

For the ceramic indirect laminate veneers, there are different types according to their composition ex. Feldspathic Porcelain, Lucite-Based glass ceramic, Lithium Disilicate glass ceramic, Zr-reinforced Lithium Silicate (ZLS) and Dicor ceramic. The use of indirect ceramic types provides us with excellent esthetics, high color stability, soft tissue biocompatibility, inherent porcelain strength and long-term durability, while the difficulty in color matching, high cost and lack of reparable are still the main drawbacks for those types.
Construction Techniques:

<table>
<thead>
<tr>
<th>Type</th>
<th>Processing Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feldspathic Porcelain</td>
<td>Layering (Firing) &amp; Milling</td>
</tr>
<tr>
<td>Lucite-Based glass ceramic</td>
<td>Heat Pressing (IPS Empress I) &amp; Milling</td>
</tr>
<tr>
<td>Lithium Disilicate glass ceramic</td>
<td>Heat Pressing (IPS Empress II) &amp; Milling</td>
</tr>
<tr>
<td>Zr-reinforced Lithium Silicate (ZLS)</td>
<td>Milling</td>
</tr>
<tr>
<td>Dicor ceramic</td>
<td>Castable ceramics</td>
</tr>
</tbody>
</table>

Preparation for the veneer:
First of all, the preparation should be maintained within enamel whenever possible. Proper finishing of the preparation allowing it to be smooth, free from any sharp internal line angles, will subsequently decrease the probability for stress concentration and failure. It is important to provide enough thickness for porcelain for sufficient fracture resistance and at the same time, not to over contour the final restoration.

Different Design for Laminate Veneers Preparation:
Type I (Without Incisal Overlap-Feather Edge)
Type II (with Overlay incisal edge-Butt Joint)
Type III (with Incisal Overlap)

Clinical Notes:
- With the introduction of new materials on top of a pioneer as feldspathic porcelain, the preparation design is influenced in terms of technician’s ability to create very thin restorations. (6) Other types of porcelain (ex. Pressable ceramics) require a minimum of 0.75mm – 1.5mm reduction as opposed to the 0.5mm required for the initial feldspathic veneers.
- Centric-relations mounted study models are a must for recreating a proper envelope of function. For example, if a tooth is lengthened, regardless of whether minimal preparations were used, the length may interfere with the envelope of function.[6]
- Other factors be taken in consideration during planning are: incisal edge position, amount of remaining tooth structure (especially enamel), proper isolation conditions, whether the underlying color will be masked or not, lip fullness and prospective changes and midline position.678

- When taking an impression, it is important to discard the surrounding gingiva. The double-cord technique is a suitable one; where you use a No. 00 and a No. 01 braided retraction cord, one on top of the other. Using this technique, with the removal of the top cord, sufficient space is opened up for the flow of the light body impression paste into the intracrevicular space around the tooth; thus allowing for a more accurate preparation without prospective over-contouring.

- Coming to the try-in and cementation, it is a common mistake to expect a passive fit during cementation because of the passive fit at try-in. A more practice procedure would be placing 2 teeth at a time, starting with the maxillary central incisors; this way in case there is a need for minor adjustments on the proximal edges post-cementation, it will be easier to manage.

References
1. The Science and Art of Porcelain Laminate Veneers By Gülş, Galip.
The barriers facing the youth of the world are many. And while the population of young people (aged 15 to 24 years) is expected to grow by 1.3 billion by the year 2030, in many regions this growth will only exacerbate challenges such as: high unemployment, a difficult transition from school to work as well as greater inequalities for the various groups of these young people. Given the rapid pace of this demographic’s expansion, these problems will require new and innovative solutions as well as a determined leader to ensure they are put into practice. This leader is Jean Paul Laurent.

To meet Jean Paul Laurent is to experience a duality of sorts. His tall, broad and athletic features belie his calm and measured tone, a holdover from his youth spent entirely on the island nation. And though his upbringing was fairly provincial, his entire adult life has been lived on the global stage, much of which has been through his NGO, The Unspoken Smiles Foundation, which is dedicated to promoting oral health awareness in children and female empowerment throughout the developing world.

A gifted student at Port-au-Prince’s most prestigious private school, Jean Paul nevertheless succumbed to the ennui of adolescent life, which manifested itself in acts of vandalism and, later, bullying. His merits as a student however shielded him from serious disciplinary action until one day, his luck ran out. Releasing insects inside of a packed classroom landed him in the principal’s office and earned him an immediate expulsion from the institution. Further, his myriad infractions prevented him from gaining admission to any of the other private, secular schools in Port-au-Prince. But his father, a man of some means, was able to secure his place in a prestigious private school. Jean Paul considers this to be a fortuitous event, as, in that moment, he vowed to turn his life around. The timing of this coincided with his brother opening a small studio that taught ballroom dancing, which quickly became an all-consuming hobby for the teen. Channeling his destructive impulses into dance, Jean Paul quickly began to attract attention on the island and was soon dancing professionally.

By all appearances, life for Jean Paul was turning around when fortune smiled yet again: his uncle, who is based in New Jersey, was able to secure a Green Card for Jean Paul and his family. However, the family’s initial attempt to leave in February of 2004 was thwarted by military forces loyal to President Aristid who, in the midst of the coup that would oust him, opened fire on the airport in an effort to prevent Haitians from fleeing; a last gasp of tyranny from a failed regime. Shortly after his arrival in New York City two years later, he was accepted into the dental hygiene program at NYU College of Dentistry, a vocation he would pursue throughout his young adult life. In fact, he was working in a dental office at Rockefeller Center when he learned of the devastating earthquake that struck the island in 2010. Speaking to his brother, he was troubled to learn that little progress had been made in rebuilding the nation a year later. In fact, there was a humanitarian camp down the road from his house; filled with thousands of displaced people who, as their plight began to fade from the list of international concern, little hope for relief. In this, Jean Paul found a call to action. He immediately contacted Henry Schein, a famously philanthropic dental supply company, and was provided with enough dental supplies — mainly toothbrushes and toothpaste — for 1,000 children. Shortly thereafter he landed in Port-au-Prince, the first time he returned to Haiti since he left several years before. Making his way to the camp, he began screening the children as well as administering fluoride treatments. While the kids were overjoyed at the treatment they received, Jean Paul was troubled by how poor their dental care was and how woefully ignorant they were of basic dental practices. And it was the duality of this moment that would give Unspoken Smiles its name because, as Jean Paul immediately realized, “behind the smile, there is an unspoken story to be told.” And with this epiphany came his solemn promise to the children in this camp to return to Haiti and continue what he started.
With that, he returned to New York. And while life revolved around the routine of a dedicated student, he began to realize how he could use it for the beneficence of under-served populations around the world. While it took some time to coalesce, it became official in 2014 when Jean Paul filed the articles of incorporation for Unspoken Smiles and was granted their 501(c) (3) status. Still, it would be his promise to the Haitian children that would continue to nag at him. In 2015, after receiving a $1500 seed grant from the Resolution Project, an organization that invests in young, global leaders, Jean Paul organized a case study in Jacmel, a small town in southern Haiti. And it would be this mountainous region, one bereft of any semblance of a dental clinic and home to only a single hospital, Jacmel would provide the perfect proving ground for Unspoken Smiles. Armed with a litany of supplies from the American Dental Association and Henry Schein, Jean Paul and four other volunteers arranged their ad hoc clinic in a school’s classroom where, for a week, they set to work treating the children of this underserved region. Further, they also implemented the educational portion of the program, instructing the children in proper oral hygiene techniques. And though Jean Paul was again disturbed by the lack of dental care in the children, he was impressed to see that the children responded to the curriculum and began to integrate it into their daily routine. But he knew that they needed regular follow-up care, which is how the Unspoken Smiles Fellowship was conceived. The Fellowship is a means for young women in underserved communities around the world to gain professional oral healthcare experience. Women between the ages of 17 and 35 will learn to educate, screen for common oral diseases, and perform basic procedures. With the Unspoken Smiles Fellowship, Jean Paul has created a platform to train, empower and connect fellows with other dental professionals across the world. The fellowship will give these women access to the best mobile dental technological resources, created a global network for innovation exchange, and formed public-private partnerships between corporations and governments to ensure community oral healthcare professionals are a cornerstone of the universal health coverage coalition. With the help of the Fellowship, these women will gain invaluable professional experience and will be able to contribute to their local economies in substantive ways. The effect of this is manifold, as the local population not only has access to regular care, but the women are able to find steady employment, a rare opportunity in the developing world. From this emerges the portrait of one who disputes the platitude that “you can never go home again.” Instead, this man, who arrived at JFK with a single suitcase and a dream of making a difference in the world, has confounded this cliché by using his diaspora as a springboard for something far greater.