



Regeneration and restoration of soft and hard tissue by photobiomodulation therapy following oral surgeries

14-15 October 2022

Friday, Saturday

Total Core Academy

Dubai, UAE



Prof. Hesham Marei
Scientific chair person



Prof. Steven Parker



Prof. Robert J. Miller



Prof. Nasim Chiniforush

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Prof. Steven Parker

Steven Parker is Honorary Professor in the Faculty of Health and Life Sciences, De Montfort University, Leicester, United Kingdom. He has been involved with lasers in dentistry for over 30 years. He has received publication in over 75 peer-reviewed papers on the use of lasers in dentistry, both as first author and co-author.

He serves as associate-editor of Lasers in Medical Science.

From 2010 – 2020 he worked as Contract Professor (Professore a Contratto), Department of Surgical Sciences and Integrated Diagnostics at the University of Genoa and was International Coordinator and Lead Faculty of the Academic Master Degree (MSc) degree (Livello II) programme in laser dentistry at the University.

He was the dental consultant to the UK MHRA 2015 publication "Guidance on the Safe Use of Lasers, Intense Light Source Systems and LEDs in Medical Surgical Dental and Aesthetic Practices".

In 2017 he was co-Editor in Chief and co-author of the Springer textbook "Lasers in Dentistry – Current Concepts". Steven is currently studying for a PhD in PBM at De Montfort University, Leicester, United Kingdom.

He served as President of the Academy of Laser Dentistry in 2005-6.



Prof. Robert J. Miller

- Holds a B.A. and M.A. from Hofstra University, both in biology
- Graduated with honors from New York University College of Dentistry where he received the International College of Dentists Award for clinical excellence
- Co-director of Pacific Implant Institute International
- Chairman of the Department of Oral Implantology Atlantic Coast Dental Research Clinic
- American Board of Oral Implantology Diplomate
- Fellow and diplomate in the International Congress of Oral Implantology

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Prof. Hesham Marei
Co-Scientific chair person

- Professor and consultant Oral and Maxillofacial Surgeon
- Dean of College of Dentistry at Gulf Medical University
- Graduated from Cairo University in 1997 and went on to receive his master and doctoral degrees in Oral and Maxillofacial Surgery from Suez Canal University, Egypt
- Completed his clinical training in oral and maxillofacial surgery at Cardiff Dental School, UK
- Obtained his fellowship in Dental Surgery in 2006 from the Royal College of Surgeons in London
- Received a master's degree in medical education in 2012 and a PhD in health professions education in 2018 from Maastricht University in the Netherlands
- Prof. Hesham's thesis was on the use of computer simulation in dental education
- He has over 40 publications in internationally recognized journals and his research focus is on the applications of 3D printing technology in dentistry, effect of chemotherapy on bone healing, osseointegration of dental implants, and use of virtual patients in dental education and medical professionalism



Prof. Nasim Chiniforush

- DDS, PhD of laser in dentistry, Tehran University of Medical Sciences, Iran.
- Fellowship of laser dentistry, Genoa University, Italy
- Head of Laser Research Center of Dentistry, Tehran University of Medical Sciences
- Assistant professor, Tehran University of Medical Sciences
- Director of the Leading House of Iran Switzerland Academic Partnerships
- Member of Academy of laser dentistry (ALD)
- Country representative of world federation of laser dentistry (WFLD)
- Publication of more than 170 article in indexed journals
- More than 160 lectures in national and international congresses
- Lecturing in more than 150 workshops about laser dentistry
- Publishing 2 books regarding laser dentistry
- Reviewer in highly indexed journals

Day 1 Program Outline

Friday, 14 October, 2022

Time	Lecturer	Subject
08:30 - 09:00		Registration
09:00 - 10:30	Prof. Steven Parker	<p>A: PBM overview and background (Didactic)</p> <ul style="list-style-type: none"> • History • Wavelengths • Dosimetry • Parameters and settings • Primary responses • Secondary responses
10:30 - 11:00		Coffee Break
11:00 - 12:30	Prof. Steven Parker	<p>A: PBM "light dose" (Didactic)</p> <ul style="list-style-type: none"> • Power density • Energy density • Time of irradiation • Continuous mode vs pulsed mode • Diameter of tips • Mode of irradiation contact vs non-contact
12:30 - 14:00		Lunch Break
14:00 - 15:30	Prof. Robert Miller	<p>A: Combination of debridement and release of growth factors in bone following implant procedures (1) (Didactic)</p> <ul style="list-style-type: none"> • The use of laser in oral implantology • Debridement of extraction site • The mechanism of photobiomodulation in bone healing
15:30 - 16:00		Coffee Break
16:00 - 17:30	Prof. Robert Miller	<p>A: Combination of debridement and release of growth factors in bone following implant procedures (2) (Didactic)</p> <ul style="list-style-type: none"> • Release of growth factors in cone following laser debridement • Understanding the contribution of photobiomodulation in dental implant surgery • Clinical applications of photobiomodulation in implant surgery
17:30 - 18:00		Q & A

Day 2 Program Outline

Saturday, 15 October, 2022

Time	Lecturer	Subject
08:30 - 09:00		Registration
09:00 - 10:30	Prof. Steven Parker	<p>A: PBM and associated photo / thermobiomodulation effects across the visible, near-, mid-, and far IR (<i>Didactic</i>)</p> <ul style="list-style-type: none"> • Anti-inflammatory Effect • Analgesic Effect • Biostimulating Effects • Clinical applications • the optimal mix of ablative, sub-ablative fluences • diode lasers (405 – 532 nm) and Erbium Chromium YSGG (2780 nm), Erbium YAG (2940 nm) and CO2 (9,300 or 10,600 nm).
10:30 - 11:00		<i>Coffee Break</i>
11:00 - 12:30	Prof. Steven Parker	<p>A: Clinical application of PBM after oral surgeries (<i>Didactic</i>)</p> <ul style="list-style-type: none"> • Definition of pain • Laser protocols • Mechanism of pain reduction by PBM • Irradiation Technique • Number and timetable of the sessions • How to manage inflammation and post complications after oral surgeries? • Clinical cases
12:30 - 14:00		<i>Lunch Break</i>
14:00 - 15:30	Prof. Nasim Chiniforush	<p>A: Photobiomodulation in Nerve regeneration (<i>Didactic</i>)</p> <ul style="list-style-type: none"> • Nerve injuries • Nerve regeneration mechanisms • Laser wavelengths applicable in nerve regeneration • How to use laser for nerve regeneration?
15:30 - 16:00		<i>Coffee Break</i>
16:00 - 17:30	Prof. Nasim Chiniforush	<p>• Photodynamic therapy: fundamentals and clinical applications (<i>Didactic and hands-on</i>)</p> <p>A: Fundamental of Photodynamic therapy(<i>Didactic</i>)</p> <ul style="list-style-type: none"> • History • Wavelengths • Mechanisms • Parameters and settings <p>B: photosensitizers and light sources (<i>Hands-on</i>)</p> <ul style="list-style-type: none"> • Natural photosensitizers • Chemical photosensitizers • LED • Laser wavelengths • Clinical cases
17:30 - 18:00		Q & A
18:00 - 19:00		Certificate Award and Closing Ceremony