

Program

Light-Activated Tissue Regeneration and Therapy III

July 11-15, 2010

Sheraton Hotel and Conference Center
Burlington, Vermont, USA

Conference Co-chairs:

Ron Waynant
FDA/CDRH, USA

Juanita J. Anders
Uniformed Services University of the Health Sciences, USA

Janis Eells
University of Wisconsin-Milwaukee

Josepa Rigau
Rovira I Virgili University, Spain



Engineering Conferences International

32 Broadway, Suite 314

New York, NY 10004, USA

Phone: 1-212-514-6760, Fax: 1-212-514-6030

www.engconfintl.org – info@engconfintl.org

Engineering Conferences International (ECI) is a not-for-profit global engineering conferences program, originally established in 1962, that provides opportunities for the exploration of problems and issues of concern to engineers and scientists from many disciplines.

ECI BOARD MEMBERS

Barry C. Buckland, President

Peter Gray

Allen I. Laskin

Raymond McCabe

David Robinson

Jules Routbort

William Sachs

Eugene Schaefer

P. Somasundaran

Chair of ECI Conferences Committee: William Sachs

ECI Technical Liaison for this conference: Richard Fein

ECI Director: Barbara K. Hickernell

ECI Associate Director: Kevin M. Korpics

Conference Sponsors

Dynatronics Corporation

MediTech International, Inc.

Photothera, Inc.

Sunday, July 11, 2010

16:30 – 18:00	Registration (Diamond Foyer)
18:00 – 19:00	Reception (Diamond I)
19:00	Dinner (Diamond I)

NOTES

- Technical Sessions will be held in the Amphitheater.
- Dinners and Breakfasts will be held in Diamond I.
- Lunches will be held in G's Restaurant.
- Audiotaping, videotaping and photography of presentations are prohibited.
- Speakers – Please leave at least 5 minutes for questions and discussion.
- Please do not smoke at any conference functions.
- Turn your cellular telephones to vibrate or off during technical sessions.
- Be sure to make any corrections to your name/contact information on the Master Participant List or confirm that the listing is correct. A corrected copy will be sent to all participants after the conference.

Monday, July 12, 2010

07:30 – 09:00 Breakfast

Session 1: Cardiovascular

Session Chair: Ronald W. Waynant, FDA/CDRH, USA

9:00 – 10:00 **Effects of Low Level Laser Therapy on Stem Cells – Overview of *In-Vivo* and *In-Vitro* Studies**
Uri Oron, Tel Aviv University, Israel

10:00 - 10:45 **Near Infrared Light in the Protection of the Heart From Reperfusion Injury**
Martin Bienengraeber, Medical College of Wisconsin, USA

10:45 – 11:15 Coffee Break

11:15 - 12:00 **Developing Transcranial Laser Therapy for the Treatment of Neurological Injuries and Disorder**
Luis De Taboada, Photothera

12:00 – 12:30 **Low Level Laser Irradiation Reinforces the Aortic Wall Subtending Aneurysm Formation in Apolipoprotein E-Deficient Mice**
Lilach Gavish, The Hebrew University-Hadassah Medical School, Israel

12:30 – 13:00 **The Role of the Circulation on the systemic effects of Low Level Light Therapy**
Mary Dyson and El Sayed, King's College London, UK

13:00 - 14:00 Lunch

14:00 – 17:00 *ad hoc* sessions / Free time

Session 2: Dentistry

Session Chair: Don Patthoff, Academy of Laser Dentistry, USA

17:00 – 17:30 **Low Level Laser Therapy (LLLT) Effects on the Unique Alveolar Bone of the Jaws**
Jerry E. Bouquot, University of Texas, USA

17:30 – 18:00 **Application of PBM to an Ulceration Showing Vas Stimulation**
John A. Hendy, Aesthetic Laser Dentistry, USA

18:30 – 19:00 **Treatment of Oral and Facial Neuropathic Pain**
Gerry Ross, Canada

19:15 – 20:45 Dinner

20:45 – 21:45 Social Hour

Tuesday July 13, 2010

07:30 – 09:00 Breakfast

Session 3: Nervous System Disease

Session Chair: Janis T Eells, University of Wisconsin-Milwaukee, USA

09:00 – 09:30 **The Therapeutic Potential of Near Infrared Light Therapy for the Treatment of Multiple Sclerosis**
Jeri Lyons, University of Wisconsin-Milwaukee, USA

09:30 – 10:00 **Near-Infrared Photobiomodulation is neuroprotective in an animal model of Parkinson's**
Janis T. Eells, University of Wisconsin-Milwaukee, USA

10:00 – 10:30 Coffee Break

10:30 – 11:00 **Low level laser irradiation promotes the proliferation and differentiation of cultured neural cells**
Chai-Hsin Chen, Medical University, Taiwan

11:00 – 11:30 **Investigations of Wavelengths for Effective Treatment of Central and Peripheral Nervous Systems**
Juanita Anders, Uniformed Services University of the Health Sciences, USA

11:30 – 12:00 **Laser Therapy for Wound Healing: A Clinical Study**
Gerry Ross, Canada; Fernanda Saraga, Meditech Rehabilitation Centre, Canada

12:00 – 13:00 Lunch

13:00 – 18:00 *ad hoc* sessions / Free time

Session 4 Diabetes and Stem Cell Therapy

Session Chair: Ronald W. Waynant, FDA/CDRH, USA

18:00 – 18:30 **Irradiation at 830 nm Stimulates Nitric Oxide Production and Inhibits Pro-Inflammatory Cytokines in Diabetic Wounded Fibroblast Cells**
Nicolette Houreld, Laser Research Center, University of Johannesburg, South Africa

18:30 – 19:00 **Non Surgical Laser Therapy of Diabetes Type I and II**
Leonardo Longo, Siena University, Italy

19:00 – 19:30 **Applications of Stem Cell Therapy for Neurological Disorders to the Clinic**
Katya M. Simeonova, Bulgarian Academy of Sciences, USA

19:30 – 21:00 Dinner

21:00 – 22:00 Discussions and Social Hour

Wednesday July 14, 2010

07:30 – 09:00 Breakfast

Session 5: PDT and TBI

Session Chair: Josepa Rigau, Rovira I Virgili University, Spain

9:00 – 10:00 **Molecular Targets for LLLT**
Kendric Smith, Stanford University, USA

10:00 – 10:30 **Photodynamic Therapy of Metastatic Melanoma Cells**
Heidi Abrahamse, University of Johannesburg, South Africa

10:30 – 11:00 Coffee Break

11:00 – 11:30 **Applications of Non-Invasive Optical Methods to Activate Photodynamic Drugs Within Deep Seated Target**
Ronald Waynant, Div. of Physics, U. S. Food and Drug Administration

11:30 – 12:00 **Transcranial Low Level Light Therapy for Traumatic Brain Injury: In Vitro and In Vivo Studies**
Michael R. Hamblin, Wellman Laboratories, Massachusetts General Hospital, USA

12:00 – 12:30 **Aculaser Therapy: A new approach to treat Cerebral Palsy**
Shahzad Anwar, Lahore, Ponjab, Pakistan

12:30 – 13:00 Discussion

13:00 – 14:00 Lunch

14:00 - 19:00 Free time

19:00 – 20:00 Reception

20:00 – 22:00 Conference Banquet
Unblinded by the Light – Photobiomodulation in Retinal Disease
Banquet Speaker: Janis T. Eells, University of Wisconsin-Milwaukee, USA

Thursday July 15, 2010

07:30 – 09:00 Breakfast

Session 7: Pain

Session Chair: Juanita Anders, Uniformed Services University of the Health Sciences, USA

09:00 – 09:30 **Effect of 650 nm and 808 nm laser irradiation on sensory and motor nerve conduction – a study of relevance to pain**
Weixing Yan, Roberta Chow and Patricia Armati, University of Sydney, Australia

09:30 – 10:00 **Efficacy of low-level laser therapy (LLLT) in the management of neck pain: a systematic review and meta-analysis of randomised, placebo and active treatment controlled trials**
Roberta Chow, University of Sydney, Australia

10:00 – 10:30 **Optomizing Variable Wavelength Light Therapy Using Real-Time Changes in Physiological Markers**
Allan Gardiner, PhotoMed, USA

10:30 – 11:00 Coffee Break

11:00 – 12:00 Future Plans

12:00 Boxed lunch and departures