

Mechanisms of Photobiomodulation Therapy XII

Saturday 28 January 2017

Conference Sessions At A Glance

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1: Mechanisms of Photobiomodulation Therapy I
 2: Mechanisms of Photobiomodulation Therapy II
 3: Mechanisms of Photobiomodulation Therapy III
 4: Mechanisms of Photobiomodulation Therapy IV
 BIOS Hot Topics
 Posters-Sunday

Important Dates

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Abstract Due:
18 July 2016

Author Notification:
26 September 2016

Manuscript Due Date:
3 January 2017

Conference Committee

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Conference Chairs

[Michael R. Hamblin](#), Wellman Ctr. for Photomedicine (United States)
[James D. Carroll](#), THOR Photomedicine Ltd. (United Kingdom)
[Praveen Arany](#), Univ. at Buffalo (United States)

Program Committee continued...

[Clark E. Tedford](#), LumiThera (United States)
[Mei X. Wu](#), Harvard Medical School (United States), Wellman Ctr. for
 Photomedicine (United States)

Program Committee

[Heidi Abrahamse](#), Univ. of Johannesburg (South Africa)
[Tomas Hode](#), Immunophotonics, Inc. (United States)

SATURDAY 28 JANUARY

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Session 1: Mechanisms of Photobiomodulation Therapy I

Saturday 28 January 2017

8:10 AM - 10:00 AM

Location: Room 3003 (West Level 3)

 Session Chairs: [James D. Carroll](#), THOR Photomedicine Ltd. (United Kingdom) ; [Michael R. Hamblin](#), Wellman Ctr. for Photomedicine (United States)

Photobiomodulation and the brain: a new paradigm (Invited Paper)

Paper 10048-1

Time: 8:10 AM - 8:40 AM

 Author(s): [Michael R. Hamblin](#), Wellman Ctr. for Photomedicine, Massachusetts General Hospital (United States)

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Clinical trial involving sufferers and non-sufferers of cervicogenic headache (CGH): potential mechanisms of action of photobiomodulation

Paper 10048-2

Time: 8:40 AM - 9:00 AM

 Author(s): [Ann D. Liebert](#), Australasian Research Institute (Australia); [Brian Bicknell](#), Australian Catholic Univ. (Australia)


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Near infrared phototherapy and EEG biofeedback in the treatment of cognitive and behavioral symptoms of Alzheimer's disease

Paper 10048-3

Time: 9:00 AM - 9:20 AM

 Author(s): [Marvin H. Berman](#), Quietmind Foundation (United States)


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Nano pulse laser therapy (NPLT) of traumatic brain injury

Paper 10048-4

Time: 9:20 AM - 9:40 AM

 Author(s): [Adelaide Micci](#), [Jutatip Guptarak](#), [Emanuele Mocchiare](#), [D. Boone](#), [Harris Weisz](#), [Margaret A. Parsley](#), [Ian Bolding](#), [K. Johnson](#), [S. Sell](#), [Donald S. Prough](#), [Irene Y. Petrov](#), [Yuriy Y. Petrov](#), [Rinat O. Esenaliev](#), The Univ. of Texas Medical Branch (United States)

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Diffuse correlation spectroscopy (DCS) study of blood flow changes during low level laser therapy (LLLT): a preliminary report

Paper 10048-5

Time: 9:40 AM - 10:00 AM

Author(s): Sagar Soni, The Univ. of Texas at Arlington (United States); Xinlong Wang, Univ of Texas at Arlington (United States); Hanli Liu, Fenghua Tian, The Univ. of Texas at Arlington (United States)

[Add To My Schedule](#) **Coffee Break 10:00 AM - 10:30 AM**

Session 2: Mechanisms of Photobiomodulation Therapy II

Saturday 28 January 2017

10:30 AM - 12:00 PM


Location: Room 3003 (West Level 3)

Extraorally delivered photobiomodulation therapy for prevention of oropharyngeal mucositis in pediatric patients undergoing hematopoietic cell transplantation *(Invited Paper)*

Paper 10048-6

Time: 10:30 AM - 11:00 AM

Author(s): Christine Duncan, Boston Children's Hospital (United States), Harvard Medical School (United States); Anna N. Yaroslavsky, Univ. of Massachusetts Lowell (United States); Wendy London, Dana-Farber Cancer Institute, Harvard Medical School (United States); Amy Juliano, Massachusetts Eye and Ear Infirmary, Harvard Medical School (United States); Stephen Sonis, Biomedels, LLC. (United States); Ather Adnan, Brigham and Women's Hospital, Harvard Medical School (United States); Nathaniel Treister, Brigham and Women's Hospital (United States)

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The use of laser phototherapy in the management of trigeminal neuralgia pain: two decades of clinical experience

Paper 10048-7

Time: 11:00 AM - 11:20 AM

Author(s): Antônio Luiz B. Pinheiro, Univ. Federal da Bahia (Brazil), National Institute of Optics and Photonics (Brazil); Aparecida Maria C. Marques, Univ. Federal da Bahia (Brazil); Luiz Guilherme P. Soares, Univ. Federal da Bahia (Brazil), National Institute of Optics and Photonics (Brazil); Fabiola B. de Carvalho, Susana Carla P. S. de Oliveira, UFBA (Brazil); Maria Cristina T. Cangussu, Univ. Federal da Bahia (Brazil)

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Biomedical, translational and clinical research on PDT of TMJ

Paper 10048-8

Time: 11:20 AM - 11:40 AM

Author(s): Julia E. Kamenoff, Medical Univ. Sofia (Bulgaria)


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Photobiomodulation therapy for chemotherapy-induced peripheral neuropathy

Paper 10048-9

Time: 11:40 AM - 12:00 PM

Author(s): Marcelo Victor Pires de Sousa, Global Photon (United States); Nathaniel Treister, Brigham and Women's Hospital (United States); Praveen Arany, Univ. at Buffalo (United States); Michael R. Hamblin, Wellman Ctr. for Photomedicine (United States)

[Add To My Schedule](#) **Lunch/Exhibition Break 12:00 PM - 1:10 PM**

Session 3: Mechanisms of Photobiomodulation Therapy III

Saturday 28 January 2017

1:10 PM - 2:20 PM

Location: Room 3003 (West Level 3)

Session Chair: [Praveen Arany](#), Univ. at Buffalo (United States)

Clinical translation of photobiomodulation therapy using evidences from precision molecular pathway analyses *(Invited Paper)*

Paper 10048-10

Time: 1:10 PM - 1:40 PM

Author(s): Praveen Arany, Univ. at Buffalo (United States)

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The biphasic light-dose dependence of spin-adduct EPR signals

Paper 10048-11

Time: 1:40 PM - 2:00 PM

Author(s): Anjani Nagvenkar, Harry Friedmann, Rachel Lubart, Bar-Ilan Univ. (Israel)

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Photobiomodulation of the oxygen consumption measured in vivo and in real time in the chick's chorioallantoic membrane

Paper 10048-12

Time: 2:00 PM - 2:20 PM

Author(s): Emmanuel Gerelli, Jaroslava Joniova, Georges Wagnières, Ecole Polytechnique Fédérale de Lausanne (Switzerland)

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Session 4: Mechanisms of Photobiomodulation Therapy IV

Saturday 28 January 2017

2:20 PM - 5:20 PM

Location: Room 3003 (West Level 3)


Session Chair: [Mei X. Wu](#), Harvard Medical School (United States)

Low-level light treatment ameliorates immune thrombocytopenia *(Invited Paper)*

Paper 10048-13

Time: 2:20 PM - 2:50 PM

Author(s): JingKe Yang, Qi Zhang, Mei X. Wu, Harvard Medical School (United States)


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Laser-induced immune modulation inhibits tumor growth in vivo

Paper 10048-14

Time: 2:50 PM - 3:10 PM

Author(s): Giulia Ottaviani, Valentina Martinelli, The International Ctr. for Genetic Engineering and Biotechnology (Italy); Katia Rupel, University of Trieste (Italy); Nicoletta Caronni, Asma Naseem, The International Ctr. for Genetic Engineering and Biotechnology (Italy); Lorenzo Zandonà, Giuseppe Perinetti, Margherita Gobbo, Roberto Di Lenarda, Rossana Bussani, Univ. degli Studi di Trieste (Italy); Federica Benvenuti, Mauro Giacca, The International Ctr. for Genetic Engineering and Biotechnology (Italy); Matteo Biasotto, Serena Zacchigna, Univ. degli Studi di Trieste (Italy)

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Coffee Break 3:10 PM - 3:40 PM

Introducing: photobiomodulation by low energy chromophore-induced fluorescent light

Paper 10048-25

Time: 3:40 PM - 4:00 PM

Author(s): Michael Engelbrecht Nielsen, LEO Pharma A/S (Denmark); E. Devemy, J. Jaworksa, KLOX Technologies Inc. (Canada); G. Scapagini, Univ. of Molise (Italy)

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3D Monte Carlo simulation of light propagation for laser acupuncture and optimization of illumination parameters

Paper 10048-16

Time: 4:00 PM - 4:20 PM

Author(s): FuLin Zhong, Ting Li, Univ. of Electronic Science and Technology of China (China); Boan Pan, Pengbo Wang, University of Electronic Science and Technology of China (China)


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Effect of LED phototherapy on blood lactate level in Taekwondo contest

Paper 10048-17

Time: 4:20 PM - 4:40 PM

Author(s): Ho-Cheol Park, Byung-Kwan Lee, Suk-Jun Lee, Sungkyoo Lim, Dankook Univ. (Korea, Republic of)

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Effects of photobiomodulation therapy (pulsed LASER 904 nm) on muscle oxygenation and performance in exercise-induced skeletal muscle fatigue in young women: a pilot study

Paper 10048-18

Time: 4:40 PM - 5:00 PM

Author(s): Muriho X. Oliveira, Univ. Federal dos Vales do Jequitinhonha e Mucuri (Brazil); Renata L. Toma, Univ. Federal de São Paulo (Brazil); Brett Jones, Thomas Cyprien, Matthew Tier, Cameron Wallace, Griffith Univ. (Australia); Ana C. M. Renno, Univ. Federal de São Paulo (Brazil); Surendran Sabapathy, E-Liisa Laakso, Griffith Univ. (Australia)

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Photobiomodulation (PBM) with 20 watt at 640 nm: pre-clinical results and propagation model

Paper 10048-26

Time: 5:00 PM - 5:20 PM

Author(s): Denis Julien Gendron, Invitalize (Canada)

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Session HT: BIOS Hot Topics

Saturday 28 January 2017

7:00 PM - 9:00 PM

Location: Room 3009 (West Level 3)

SUNDAY 29 JANUARY

[Show All Abstracts](#)

Session PSun: Posters-Sunday

Sunday 29 January 2017

5:30 PM - 7:30 PM

Location: Moscone West Levels 2 and 3

Conference attendees are invited to attend the BIOS poster session on Sunday evening. Come view the posters, enjoy light refreshments, ask questions, and network with colleagues in your field. Authors of poster papers will be present to answer questions concerning their papers. Attendees are required to wear their conference registration badges to the poster sessions. Poster authors, view poster presentation guidelines and set-up instructions at <http://spie.org/PWPPosterGuidelines>.

Challenges of transcutaneous laser application for the potential of photobiomodulation of the spinal cord at the scale of a large companion animal

Paper 10048-19

Time: 5:30 PM - 7:30 PM

Author(s): Daqing Piao, Lara Sypniewski, Kenneth Bartels, Oklahoma State Univ. (United States)

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The use of phototherapy in the management of TMJ pain: clinical evidence of benefits and limitations

Paper 10048-20

Time: 5:30 PM - 7:30 PM

Author(s): Antônio Luiz B. Pinheiro, Univ. Federal da Bahia (Brazil), National Institute of Optics and Photonics (Brazil); Amanda P. Soares, Aparecida Maria C. Marques, Fabiola B. Bastos de Carvalho, Univ. Federal da Bahia (Brazil); Luiz Guilherme P. Pinheiro Soares, Univ. Federal da Bahia (Brazil), National Institute of Optics and Photonics (Brazil); Susana Carla P. Sampaio de Oliveira, Maria Cristina T. Cangussu, Univ. Federal da Bahia (Brazil)

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Evaluation of the efficacy of AmpDT of oral microorganisms with Photogem associated to red LED ($\lambda 640\text{nm} \pm 5\text{nm}$): in vitro

Paper 10048-21

Time: 5:30 PM - 7:30 PM

Author(s): Gustavo M. Pires Santos, Susana Carla P. Sampaio de Oliveira, Univ. Federal da Bahia (Brazil); Juliana C. Monteiro, Univ. Estadual de Feira de Santana (Brazil); Aparecida Maria C. Marques, Univ. Federal da Bahia (Brazil); Vanderlei S. Bagnato, National Institute of Optics and Photonics (Brazil); Antônio Luiz B. Pinheiro, Univ. Federal da Bahia (Brazil)

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Investigation on physiological and clinical effects of different light sources in TMJ photobiomodulation therapy

Paper 10048-22

Time: 5:30 PM - 7:30 PM

Author(s): Júlia E. Kamenoff, Medical Univ. Sofia (Bulgaria)

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Low level laser (LED- Ga-Al- As 660) therapy on soft tissue healing: review, mechanism and a case report

Paper 10048-23

Time: 5:30 PM - 7:30 PM

Author(s): Mohammad Nazrul Islam, Shaheed Suhrawardy Medical College and Hospital (Bangladesh)

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Photonic modulation of EGFR – 280nm low level light arrests cancer cell activation and migration

Paper 10048-24

Time: 5:30 PM - 7:30 PM

Author(s): Claudia M. Botelho, Rogério Marques, Univ. do Minho (Portugal); Viruthachalam Thiagarajan, Bharathidasan Univ. (India); Odete S. Lopes Gonçalves, Henrik Vorum, Aalborg Univ. (Denmark); Andreia Gomes, Univ. do Minho (Portugal); Maria Teresa Neves-Petersen, Aalborg Univ. (Denmark)

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