

IALMS - Newsletter

December 2007

REPORT ON

17TH CONGRESS OF THE INTERNATIONAL SOCIETY LASER SURGERY AND MEDICINE - ISLSM
22TH INTERNATIONAL CONGRESS OF LASER MEDICINE

LASER FLORENCE 2007

..... the Laser Medicine World

Medicine and Surgery, Biology, Veterinary Surgery, Physics, Engineering

FLORENCE, November 8th – 10th, 2007

Laser Florence 2007 meeting was characterized by special emphasis on global use of laser technology, pointing out where this technology is really useful and efficient.

The meeting offered a rare opportunity to intermingle the scientific community of the oldest (ISLSM) and the youngest (IALMS) laser organizations. The active participation of IPTA and WFSLSM, enhanced the beneficial effect making the event not just a window but rather but a "world" of laser technology. Delegates from almost 40 countries who delivered more than 120 lectures.

The traditional Italian hospitality and kindness and the fact that Villa Viviani is situated in a beautiful natural setting of Settignano hill helped to create the proper atmosphere for scientific discussions, to renewal of old friendship and establishing new ones.

The main themes of the meeting were as follows:

1. Laser Therapy of stem cells
2. Laser Therapy of traumatic and degenerative spinal cord injuries, included paraplegia, tetraplegia, multiple sclerosis
3. Laser Therapy of diabetes, in opposite with anti-diabetic drugs and exogen insulin
4. Laser Therapy of female infertility
5. Laser surgery of arterial and veins: really and lies
6. Aesthetic laser medicine and surgery: right and wrong
7. Laser Dentistry: state of the art and news.
8. Photodynamic diagnosis and therapy: practical utility and experimentation.



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Kazuhiko Atsumi from Tokyo University pointed out the important place of laser in modern medicine, especially, playing an intermediary role between regional and holistic medicine. He showed how an equilibrium reached among various energies of the body may help maintaining a good health.

Isaac Kaplan from Tel Aviv University reviewed the many fields in today medicine where laser is being used. Wilhelm Waidelich from Munich University explained the physics and laser techniques, utilized in Urology for various kinds of tumors and diseases. Gabriel De Pena from Santo Domingo showed how laser can be used in caesarian section and female genital surgery. Masayoshi Okada from Kobe University referred to the use of laser for arterials malformations. Leonardo Corcos from Udine University and Lenka Veverkova from Brno University showed laser use in varicose veins. Abraham Baruchin from Askelon University illustrated novel applications of Er: YAG Laser Endoscopic Fiber Delivery System in Maxillofacial Surgery for laser osteotomy in orbital blowout fractures surgery and for pulverizing sialolithiasis. Jin Wang Kim from Seoul University and Narong Nimsakul from Bangkok referred to the selective use of laser in African and Asiatic type of skin. Use of laser in the treatment of Diabetic patients was discussed by Kira Samoilova from San Petersburg while stimulation of wound healing was shown by Anat Lipovski and Rinat Ankri from Bar Ilan University. Possibilities of regeneration of peripheral nerves and spinal cord lesion treatments with laser were discussed by Marcio Lisboa from Salvador Bahia University, Yoshimi Asagai from Suwa and Leonardo Longo from Siena University. News on Percutaneous Laser Disc treatment were discussed by Pier Paolo Menchetti from Florence and in young patients by Gunaras Terbetas from Vilnius University.

Other researchers illustrated various uses of laser as analgesic (Leos Navratil from Czeske Budejovice University, Chiyuki Shiroto from Goshogawara, Kimito Yamada from Tokyo), anti-inflammation (G. David Baxter, Steve Tumity from Otago University, New Zealand).

Juanita Anders from Bethesda University showed a novel way to stimulate stem cell in culture using a new range of wavelength. Helder Marcal from Sidney University presented a new method of tissue welding based on tissue adhesive and stem cells. Jin Wang Kim used laser and stem cells for acceleration of wound healing following surgery. Toshio Oshiro from Tokyo University brought the results of 5 years research of laser therapy in cases of female infertility.

Rachel Lubart from Bar Ilan University demonstrated similar experimental results in such cases. Along a whole session. Juozas Vaitkus from Vilnius University discussed innovation and physics of laser-tissues interaction.

New advances in the fields of Plastic and Aesthetic Surgery as well as Dermatology including new techniques, methods, algorithms and instrumentation were discussed by prominent plastic surgeons and dermatologists including Kazmir Kobus from Polanica-Wroclaw University, Narong Nimsakul, Abraham Baruchin from Askelon University and Khalil Khatri from Boston.

A session was dedicated to Photodynamic Therapy and its implication conducted by Keyvan Moghissi, from Yorkshire Laser Centre, Toshio Oshiro from Tokyo University, Mihail Lucien Pascu from Bucarest University and Sally H. Ibbotson from Dundee University.



Antonio Lauto from Sidney University presented new technique for tissue welding in peripheral nerves injuries; Hiroato Suzuki from Tokyo University and Aurelija Vaitkuvienė from Vilnius University shown the use of phototherapy in oncology.

New types of lasers and equipment were demonstrated by Helena Jelinkova and Tatiana Dostalova from Prague University.

The section of laser in Dentistry was held under the patronage of the World Federation of Laser Dentistry Societies - WFLDS. Gary Lynn Powell from Utah, USA, one of the pioneers in using laser for dentistry, expert in Argon laser for dental treatments, Jean Paul Rocca from Nice University, France, a known expert in Erbium Laser, Carlo Fornaini from Parma University known researcher in Diode and Nd-YAG lasers had all contributed to the success of this section.

Ingmar Ingenegeren from Germany showed the many advantages of laser Er, Cr:YSGG (2780 nm in respect to implantology.

Junjii Kato from Tokyo University brought his research results which clearly show that diode lasers can inhibit the growth of microorganisms responsible for periodontal diseases. Paolo Vescovi, from Parma University. Demonstrated his experience with iatrogenic osteonecrosis caused mainly by chemotherapeutic drugs.

Carlo Fornaini proposed a novel technique for gaining optimal adhesion of non metallic prosthesis.

It was shown how with Erbium laser using different wavelength, many aspects of the dental medicine and surgery can be successfully treated. In a bloodless and sutureless way and with less anesthetics.

Jean Paul Rocca presented his method for estimation of the amount of dentin eliminated during photoablation with Er:YAG laser, his sophisticated and precise technique helps in mathematic elaboration and creation of a three-dimensional model.

R. Kornblit from Rome University brought forward the concept of minimal invasive surgery using CO₂ and Erbium laser for the treatment of dental caries. The author discussed the revolution of dentistry from "extend and prevent" to "micro ablation".

Umberto Romeo from Rome University, compared biopsy taken with 5 different lasers (Diode, Nd:YAG ,Er,Cr:YSGG ,KTP) and illustrated the advantages and disadvantages of each laser.

This study won the best lecture prize for this session.

Gary Westermann from Omaha Nebraska University presented his experimental results combining Argon laser with fluoride paste. A great hope for the treatment of dental caries.

Last lecture was delivered by A.M. Pallotto. from Ancona University,

Dealing with her protocol for estimation and analysis of laser treatment success in the case of human incisive treated with resins and lasers it was clearly shown the advantages of laser in this respect.

In conclusion, the role of laser technology in surgery and medicine is already well recognized and established. However a continuous research, revision and perfection is of paramount importance.

Laser Florence is, though aware of these needs, is oriented toward these needs and contribute to the achievement of this scope. In order to stimulate scientific research, Best lectures are prized.

This year the best lectures and posters were as follows:



INDICATIONS FOR A LASER ASSISTED CESAREAN SECTION	Gabriel E. De Peña, MD Laser Cosmeto-Gynecology and Obstetrics Institute Alma Mater Esq. Bolivar, Hospiten Santo Domingo, Dominican Republic
LASER PROFILOPLASTY : CRANIOMAXILLOFACIAL SURGERY & RHINOPLASTY IN ASIANS	Jin Wang Kim MD, PhD ¹, Joung Ok Lee MD, PhD ² Seoul, Korea- Hallym Univ. College Of Medicine Dept. Of Plastic Surgery ¹ & Dermatology ²
LASER THERAPY IN THE TREATMENT OF ACHILLES TENDINOPATHY: A PILOT STUDY	¹S. Tumilty, MPhy, ¹J. Munn. PhD, ¹H. Abbott, PhD, ²S. McDonough, PhD, ³D. A. Hurley, PhD ¹G. David Baxter, DPhil ¹ Centre for Physiotherapy Research, School of Physiotherapy, University of Otago, Dunedin, New Zealand ² University of Ulster, Newtownabbey, Co Antrim, Northern Ireland ³ University College Dublin, Belfield, Dublin, Republic of Ireland
PERCUTANEOUS LASER DISC DECOMPRESSION ON PEDIATRIC PATIENT. CASE REPORT.	G.Terbetas*, K.Saniukas**, G.Posiuonas**, E.Jarzemskas* *- Vilnius University Emergency Hospital, Vilnius, Lithuania **-Vilnius University Children Hospital, Vilnius, Lithuania
LASER-ACTIVATED BIOADHESIVE WITH DECELLULARIZED TISSUE SCAFFOLDS AND OLFACTORY ENSHEATHING CELLS MAY ENHANCE REPAIR AND REGENERATION OF INJURED SPINAL CORDS	Marçal H.¹, Lauto A.¹, Badylak S.F.², Sellaro T.L.², Mackay-Sim A.4, Mahler S.3, Foster J. ¹ ¹ Bioengineering Center, School of Biotechnology and Biomolecular Sciences University of New South Wales, Sydney, Australia; ² McGowan Institute for Regenerative Medicine, University of Pittsburgh, USA.; ³ Australian Institute for Bioengineering and Nanotechnology, University of Queensland, Brisbane, QLD, Australia; ⁴ National Adult stem cell Institute, Griffith University, Brisbane, QLD, Australia
OPTICAL VIBROCARDIOGRAPHY FOR NON CONTACT MONITORING OF THE CARDIAC ACTIVITY: COMPARISON WITH OTHER PHYSIOLOGICAL SIGNALS	L. Scalise, E. P. Tomasini, U. Morbiducci, M. De Melis Dipartimento di Meccanica - Università Politecnica delle Marche, Ancona
ENDOVASCULAR LASER INTERVENTION FOR PERIPHERAL ARTERIAL DISEASES".	Masayoshi Okada, MD, PhD ¹, Masato Yoshida, MD, PhD ² ¹ International Institute for Advanced General Medicine, Kobe, Japan ² Himeji Cardiovascular Center, Dept of Cardiovascular Surgery, Japan
PHOTODYNAMIC THERAPY FOR CAPILLARY HEMANGIOMA ; AN ANIMAL STUDY	Takafumi Ohshiro¹ Toshio Ohshiro² Tatsuo Nakajima³ Katsumi Sasaki¹ Shunji Fujii¹ Yuki Taniguchi¹ ¹ Ohshiro Clinic, Tokyo, Japan ² Japan Medical Laser Laboratory, Tokyo, Japan ³ Keio University, Tokyo, Japan
EFFECTS OF LASER THERAPY ON REGENERATION OF INJURED SCIATIC	Marcio Lisboa, N. Ribeiro-Neto, J.B. Marcelo-Sobrinho, G.C.S. Meir



NERVE IN RAT	Federal's University of Bahia 62, Araujo Pinho Avenue, Canela Salvador Bahia, Brazil
DIODE PUMPED ND:YAG LASER GENERATING AT 1444 NM	Jan Šulc¹, Pavel Arátor¹, Michal Němec¹, Helena Jelínková¹, Karel Nejezchleb², Václav Škoda², Mitsunobu Miyagi³, Katsumasa Iwai³, Yuji Matsuura⁴ ¹ Fac. of Nuclear Sci.& Physical Eng, Czech Tech. Univers. Prague , Czech Rep. ² Crytur, Ltd. Turnov, Czech Republic, ³ Sendai National College of Technology, Sendai, Japan ⁴ Tohoku University, Graduate School of Engineering, Department of Electrical Communications, Sendai, Japan
AN INTERFEROMETRIC STUDY OF Er:YAG LASER DENTINE ABLATION	Rocca JP¹, Fornaini C¹, Bertrand C¹, Lepetitcorps Y² ¹ TELEO Laboratory, Faculty of Dentistry, University of Nice Sophia Antipolis (F) ² ICMCB Bordeaux University (F)

THE REPORTERS

ABRAHAM BARUCHIN, CARLO FORNAINI, LEONARDO LONGO

**ONLY THE IALMS MEMBERS WHICH PAID
REGULARLY THEIR SUBSCRIPTION FEE COULD SEE
THE SLIDES SHOWN IN LASER FLORENCE
CONGRESS OF THE LAST THREE YEARS, ON THE
WEB.SITE WWW.IALMS.COM , ON THE AREA
MEMBER PROTECTED BY THE PASSWORD.**



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MINUTES OF THE MEETING OF EXECUTIVE COMMITTEE (E.C.) - Report

Held during the 22th International Congress Laser Medicine

(Laser Florence 2007)

At Villa Viviani, Florence, Italy

November 9th, 2007 Meeting commenced: 13.30

Present:

- President: Leonardo Longo
- Treasurer: Mariano Postiglione

Attending were: J. Anders, A.M Baruchin, G.D. Baxter, L. Gasparian, H. Jelinkova, Jin Wang Kim, K. Khatri, I. Kaplan, G. Lynn-Powell, R. Lubart, A. Makela, N. Mortellaro, L Navratil, B. Navratilova, T Oshiro, V.Oswal, N. Nimsakul, M. L. Pascu, K. Rau, P. Smalley, K. Samoilova, J. Vaitkus, A. Vaitkuviene, R. and W. Waidelich,

1. Opening positions.

President Longo opened the meeting with a welcome to the new and old committee members

He reported that this year meeting was attended by 200 delegates and more.

The principal focus of this meeting should be on the Agenda item 1, 2 relating primarily to the planning priorities e.g.: journals and budget

The Agenda was discussed and approved.

The Agenda document was noted to also include the treasurer contact list, guidance on responsibilities and functions of the position.

2. Apologies, working. Methods, administrative matters (including IALMS Bylaws)

Apologies were noted from G. Glanz., C. De Lorenzi, C. Enwemeka, L. Kozma, R. Lanzafame, A Rubinov, Sharon Rau.

E-Mail is the main working method, thus each IALMS member should endeavour to keep their contact details up to date.

3. Elections, nominations

Longo: Abe M. Baruchin Is now the new President of ISLSM . ISLSM will continue to be jointed strictly with the IALMS. ***The IALMS members which attended in Laser Florence 2007 will be too ISLSM members 2008, free of charge.***

4. Honours & Standardization

The participants pay homage to the memory of departed members: Ovidio Marangoni, .Venkatasami Jeganathan and Shamai Giler.

Longo reminds that this is the second time that Oswal prize will be given for the best paper.



5. Webpage and Official Journal

The website welcomes all members of IALMS. This website reinforces the already functioning IALMS web. Site www.ialms.org changed in www.ilams.com and it is totally available to regularly paying members.

The IALMS annual budget is published on the web, in the member's area, as well as the list of the members and their position in the Academy.

This suggestion is approved unanimously

5.1

Longo raises the issue of our relations with Journals

5.1.2 SPIE

Longo suggests that we could continue our relations with SPIE, although promised, no contribution has already given by them.. The trouble is that SPIE now requires money for the publication of the Proceedings. On the other hand, the SPIE Proceedings are not included in the Current Contents and Index Medicus. Nevertheless SPIE was doing a great job by publishing our papers and therefore, served as an important media for IALMS.

Longo: I spoke with them. It sound like the editors wants to change the rules; not only they do not contribute as promised but now they want the papers and the money as well.

Kaplan: What about the German Journal? (Medical Laser Application A.B.)

5.1.3 Laser Medical Application Longo reminds that Elsevier's journal "Laser Medical Application" is the official Journal of ISLSM and DLSMS. It bears the logo on the cover and some members of the IALMS Committee are included in the advisory and editorial board of the journal. This journal now is published with late but better than last year. On the other hand this journal is very important. Although it has not got yet the IF.

Longo: We have to talk with Dr. Frank Frank about continuing our relation with his Journal (MLA _{A,B})

Another Editor (LIBRUX) will be happy to produce 500 copies including CD rapidly and with low costs. I can arrange with him one month after the congress.

Baruchin : The Journal "Laser Medical Application" became our Official journal , it is more or less national journal rather than International, it has no International recognition ,I have talked with Carsten Philipp who promised that the necessary steps toward recognition and ranking has been taken

We have had bad experience with Photomedicine and Laser Surgery and Laser in Medical Sciences who either published a small part of our papers or too late.

Oswal: Maybe we should think about automatic reception of a Journal to members?

Nimsakul: I suggest that the journal that is willing to reduce price and publish our abstracts as well will be our Official Journal .and if Medical Laser Application is willing to publish it for free we should support it why not?

Longo reminds that Springer's journal "Laser in Medical Sciences" is the official Journal of IALMS and ELA (European Laser Association).



5.1.4. Lasers in Medical Science

The journal was not sent to certain members who paid for it .In the current issues neither the logo nor the names of members of the academy have been mentioned at all. Springer apologized for the error .Should we, continue our relations with the Journal? On the other side, we have to work for the journal meaning: sending articles. The journal has an **Impact factor:** 1.492 (2004) Section "Medicine, general & internal": Rank 15 of 42.

Longo: So, What about declaring Medical Laser Application as Official Journal of the ISLSM?

. The Board unanimously approved the suggestion.

Raphaella Waidelich : I will contact the Journal. (after this contact, unfortunately this journal assures the publication of only 8 papers for the next august, while we already have about 20 papers suitable of publication. N.O.R.)

In conclusion, the IALMS members 2008 will receive our official journal *Laser in Medical Science*, paying the special price of the subscription directly included in the subscription fee of the IALMS.

Laser Florence Proceedings will be printed and indexed by the ISI Philadelphia, within first months of the year 2008, without further troubles.

6. Finances

The Executive committee has reiterate, the membership dues for 2008 at 100 Eurodollars paid directly to the treasurer

Oswal: I suggest a **life member** fee of 250 \$

Postiglione: I should rather fix the fee according to life expectancy

Kaplan: So that if somebody passes away earlier, part of the money will be returned to his family?

Oswal: Euro or Dollars?

Longo: Euro.

Treasurer Postiglione read a short interim report of the financial states, emphasizing that the money is not the prime goal of the Academy but fuels the activities, although needed and essential, the main aim is knowledge exchange as well as scientific communication. Laser Florence is more than a conventional congress; it is also a manifestation of friendship and will continue with this spirit.

7. International course and workshops

Longo: We have notice a serious problem namely the declining number of participants in our laser congresses and meetings .maybe because of deficient advertisement.

Kaplan: if Winston Churchill would have attended the congresses and meeting he would surely say: "never before so many have said so little "



Juanita Anders: The quality and quantity of research has reduced as well

Longo: Also the demand for course has lowered dramatically

Smalley: the demand for courses is lowered since many left for the private market and also the economic situation is too blamed.

Kaplan: Because they can have them in their own countries,

Longo: So maybe we should arrange course for juniors and students at reduced price?

Postiglione: we have already raised this issue, if we reduce prices many will be able to afford participating, driven also by their superiors.

Longo: we have to think about organizing such courses in different countries with the aid of COST and other agencies. We can arrange this project during 2008.

Vaitkus: I suggest that we should inform all European ministries of Health about these courses their importance and convenience.

Kaplan: is this related directly to the price of the machines.

Smalley: First I thought so but the average machine pays itself in about 3 years, so the claims about high price do not hold anymore.

Pascu: the situation is too complicated to be solved by laments and cries we have to take systematic measures including advertisement teaching and EBM.

Longo: EU is willing to support and subsidise, educational courses, Our Academy would like to present them with proposals. We have to decide upon further 3 places(countries) where it can take place. we will organize programmes for the courses, compile the budget and send it to them

7. Meetings & Congresses. .

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8. Next meeting

Longo: we will compile an organizing committee and underneath sub- committees for each specialty. not through assemblies but rather by use of the Internet.

Starting after Christmas we will organize all.

Baruchin: Please make sure to send me an up to date e-mail addresses and further details as well.

In conclusion **Laser Florence 2008** will be held in **October 31st – November 1st, 2008**. This edition will be especially dedicated to young researchers, as the edition of 2006 year.

The next Meeting of the ISLSM will be held in **Israel, October- November 2009**.

The Reporter (Abraham M. Baruchin)



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Student: , based upon presentation of the curriculum vitae	70

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LASER FLORENCE 2008

...a bridge on the Laser Medicine World

2° INTERNATIONAL CONGRESS
for Young Researchers, Physicians, Biologists, Physics

Scientific Secretariat : IALMS
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Best wishes for the new year!

The IALMS Staff



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