

# **IALMS NEWSLETTER**

# December 2010

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### **Report On Laser Florence 2010**

The **LASER Florence 2010 Congress**, organized by the IALMS (International Academy Laser Medicine & Surgery), was held on the 5<sup>th</sup> and 6<sup>th</sup> November 2010 with the participation of over 200 scientists from all over the world to outline the progress achieved in the use of LASER in medicine.

New data was presented on the application of LASER in medicine in such fields as diabetes, spinal cord lesions, stem cell bio-modulation and early diagnosis of tumors of bladder, prostate, lung and of female genitalia.

Particularly interesting were the data related to the clinical trial being carried out in Italy involving over 100 patients with diabetes. This study is the follow-up of experimentation carried out between June 2004 and December 2009 on 80 male and female diabetes patients between 18 and 65 years old in order to collect evidence on the possibility of carrying out a structured clinical trial. Half of the patients received a device made of photodiodes which accelerates glucose metabolism, favors the normalization of blood glucose levels and prevents hyper-glycemia after meals.

After 5 years of experimentation during which the patients switched on for the whole period of digestion the photodiode device they wore, it was shown that in the majority of cases the after meal irradiation maintained blood glycemia at normal levels (L. Longo).

The association of LASER therapy with stem cells has shown favorable results in the therapy of myocardial infarction (U.Oron) and spinal cord lesions. Results were presented from a 6 year experimentation on 78 patients with

tetraplegia, paraplegia, vertebral fractures and/or spinal cord lesions. Treatment with LASER made it possible for these subjects (men and women, between 14 and 55 years of age), to recover essential functionality previously lost and not restored with other methods. Function and sensitivity of anal sphincter (in women also urethra and bladder), function and sexual activity in males and females, recovery of thermoregulation, touch, thermal and pain sensitivity below the lesion, improvement of voluntary and involuntary muscle were noted. Follow-up after 6 years of study confirmed that the results obtained are stable and permanent. In 5 additional patients (over the 78 cited above), total deambulation was restored and it has been possible to do so without the support of a wheel chair.

Judging by the scientific data presented at the Congress, evidence has been presented on the anti-inflammatory and regenerative effects of non-surgical LASER in patients with traumatic spinal lesions. It has been demonstrated on animals that the post-trauma damage of the central nervous system consists of 2 phases: the first and immediate one is an acute inflammation and the second one, which is more serious, is due to nerve compression and the formation of edema and fibrosis of the areas surrounding the lesion. On both the phases the effect of LASER treatment is very positive, reducing the entity of the first phase and often preventing the formation of the second (J. Anders).

The state of the art on LASER reconstruction of peripheral nerves has been shown by S. Rochkind.

Other studies were presented during the congress such as LASER application in dentistry (A. Pinheiro, C. Fornaini, S. Gonchukov, A. Marques, E. Nicola), in rehabilitation (G.D. Baxter, M. Herold, A. Shenqiti), in plastic surgery (K. Russe), in oncology (S. Svanberg, K. Svanberg, A. Hofstetter, A. Vaitkuviene) and in surgery, particularly in regards to permanent elimination of hemorrhoids (C. Giannini).

Finally, guidelines have been produced by the most important international experts (M.L.Pascu, G.D.Baxter). As in previous years the proceedings of the meeting will be published by the American Institute of Physics. The guidelines will be part of an up-to-date review which the above experts, each in his own field, have agreed to provide in the near future. This review will be disseminated to all the recipients of the documentation produced by IALMS.

The Tuscan Chapter of the Kiwanis Club, represented by many officers and by the President of the Kiwanis Club Firenze, Enrica Fuligni, provided to IALMS the funds to purchase an LED- based tool for the treatment of diabetes in one child, A.M.

The Lions Club Florence Stibbert provided 1 fellowship to be awarded to the best paper presented by a young researcher, which will be also published. The meeting has also been supported by the Florence Convention Bureau. In addition, the Italian Post Office has printed a special day philatelic stamp to commemorate the event.

Awards were presented to:

| FLUORESCENCE OF CERVICAL SMEAR<br>MATERIAL FOR PHOTO DIAGNOSTICS | Vilmantas Gegzna, A.Vaitkuviene <sup>1</sup> , R.Kurtinaitiene <sup>3</sup> ,<br>J.Vaitkus <sup>1</sup><br><sup>1</sup> Institute of Applied Research, Vilnius University, Vilnius,<br>Lithuania; <sup>3</sup> Santariskiu Klinikos, Vilnius University Hospital,<br>Vilnius, Lithuania |
|--|---|
| TREATMENT OF HALITOSIS IN PATIENTS                               | <sup>1</sup> Ana Cristina C.Dal Rio, DDS, PhD, <sup>2</sup> C. A. C. Passos,  |
| WITH CHRONIC CASEOUS TONSILLITIS                                 | MD, PhD, <sup>3</sup> R. J. Gusmão, MD, PhD, <sup>4</sup> E. M. D. Nicola,  |
| USING CO2 LASER FOR CRYPTOLISIS                                  | MD, PhD   |

| COAGULATION.                          | <sup>1</sup> Department of Otolaryngology–Head and Neck Surgery,                                      |
|---------------------------------------|---|
|                                       | State University of Campinas; <sup>2</sup> Faculty of Medical   |
|                                       | Sciences- State University of Campinas - UNICAMP -  |
|                                       | Campinas, SP, Brazil ; <sup>3</sup> Professor of the ENT- Head and                                    |
|                                       | Neck Department, Faculty of Medical Sciences- State   |
|                                       | University of Campinas - UNICAMP - Campinas, SP,  |
|                                       | Brazil; <sup>4</sup> Professor of the ENT-Head and Neck Dept, -                                       |
|                                       | Medical School State University of Campinas – UNICAMP,  |
|                                       | Brazil  |
| MORPHO-STRUCTURAL EFFECTS CAUSED      | A. F. S. Barbosa, L. G. P. Soares, J. M. S. Aciole, G. T.   |
| BY 660NM LASER DIODE IN               | S. Aciole, I. R. Pitta, S. L. Galdino, A. L. B. Pinheiro  |
| EPIMASTIGOSTES FORMS OF               | Center of Biophotonics, School of Dentistry, Federal  |
| TRYPANOSOMA CRUZI: IN VITRO STUDY     | Univ.of Bahia   |
| THE TREATMENT OF SCARS: LASERS VS.    | Elisabeth Russe, Katharina Russe-Wilflingseder  |
| SURGERY                               | Plastische Chirurgie und Laserzentrum Innsbruck, Austria  |
| WIDE DIFFERENCES IN THE ESTIMATION OF | CR Lattimer <sup>1</sup> , S Piper <sup>2</sup> , E Kalodiki <sup>1</sup> , E Shawish <sup>1</sup> ,G |
| COST IN ENDOVENOUS LASER THERAPY      | Geroulakos <sup>1</sup>   |
| FOR VARICOSE VEINS                    | <sup>1</sup> Vascular Surg, Ealing Hosp.Imperial College, London, UK                                  |
|                                       | <sup>2</sup> Department of Information & Performance, Ealing  |
|                                       | Hospital, Middlesex, UK   |

The fellowship of the Lions Club Firenze Stibbert was awarded for the paper presented by Dr. A.F.S. Barbosa and Colleagues.

## **Report on the IALMS Assembly, Florence, Nov. 6<sup>th</sup>, 2010**

The executive committee of IALMS held its annual meeting during the LASER Florence Congress. Among the items concerning routine administration, three points where given special emphasis. The first is the need to remind the members at every possible opportunity to pay their annual dues – the continued viability of our valuable organization depends upon the participation of members. The second is the commitment of the international experts to submit their contribution to the state of art review on the use of LASER in medicine. The third was the proposal of a multidisciplinary Master on "Medical Laserology", divided in two parts: first part propedeutic, obligatory, held in Florence under the umbrella of the IALMS. The second part is specialties, held in different Countries, where the principal expert teachers live. The detailed program must be well defined and thoroughly approved by all teachers. This Master will be assigned by the World Federation of Societies of Laser Medicine and Surgery, in conjunction with the IALMS.

Finally, the 2011 Laser Florence Congress will be held on November  $4^{th} - 5^{th}$ , this fall. We request that all members respond promptly to their invoices for membership dues, which will be sent out soon. We look forward to your scientific submissions for this event, and hope to see as many members as possible in attendance this year.

#### LASER FLORENCE 2011 - PROGRAM AT-A-GLANCE

#### November 4th, 2011

- LASER / LIGHT AND SKIN : Diagnosis, Therapy, Surgery
- LASER/ LIGHT AT CELLULAR LEVEL: Diagnosis, Therapy, Surgery
- TRENDS IN BASIC AND APPLIED RESEARCH IN LASER BIOMEDICINE
- Talk Poster Session

#### 19:15 Open Ceremony with Welcome Cocktail and leading lecture Provincia di Firenze, Palazzo Medici-Riccardi, Sala Luca Giordano

#### November 5th, 2011

- LASER AND NERVOUS SYSTEM: Diagnosis, Therapy, Surgery
- LASER DENTISTRY : Diagnosis, Therapy, Surgery
- NEWS
- Workshops

#### IALMS General Assembly

#### 20:30 Gala Dinner, Awards Assignation, Music show and Closure Ceremony

#### **ORGANIZED BY**

I.A.L.M.S. - The International Academy for Laser Medicine and Surgery

#### **SPONSORED BY**

I.S.L.S.M. - The International Society of Laser Surgery and Medicine

W.F.L.S.M.S. - The World Federation of Laser Surgery and Medicine Societies

I. P.T.A. - The International Photo Therapy Association

I.L.M. - Institute Laser Medicine Florence

#### UNDER THE HIGH PATRONAGE OF

The President of Italian Republic (requested) Italian Health Office (requested) Provincia di Firenze Florence Medical Association Florence Convention Bureau

> Call for Abstracts: Deadline July 15th , 2011

# INTERNATIONAL ACADEMY LASER MEDICINE & SURGERY 25<sup>th</sup> International Laser Medicine Congress

For Researchers, Physicians, Surgeons, Biologists, Physical Therapists, Engineers, Physics

# Laser Florence

# Florence, 4<sup>th</sup> - 5<sup>th</sup> November 2011

Organizing Secretary: IALMS - Borgo Pinti 57 - 50121 - Firenze Fax #39 05539069632 www.laserflorence.org - ialms@laseflorence.org

## **NETWORKS GENERATED BY LASER FLORENCE CONFERENCES**

1997: Pulse light for vascular lesions, advantages and limits. Endovascular laser therapy for various veins. Indication and contraindications for Laser resurfacing procedures.

1998: mechanism of action, ant inflammatory and anti-edema effects of Laser. Advantages and limits for laser in dentistry. Types of laser recommended for treatment of telangiectases and reticular veins.

1999: Prostatectomy laser. Non surgical endovenous laser modulating the immune system. Advantages and limits of Laser and IPL as hair removal techniques.

2000: PDD and PDT for the treatment of gastrointestinal and urological cancers. Laser therapy for wound healing and skin ulcers. , stretch marks, scars, keloids. Laser and IPL in skin rejuvenation.

2001: Laser treatment for diabetes type 1 and 2 (live demonstration on patients during the congress, probably, for the first time in the world). Advantages and limits of pulsed light in aesthetic medicine and surgery. What kind of laser should be in rheumatology and sport traumas? Role of European Community and World Health Organization in these issues.

2002: Laser Treatment of disk Hernias. Laser and light treatment for Psoriasis and Vitiligo.

2003: Laser therapy for nervous cells regeneration, in vitro and experimental. Complications of laser and light therapy and their treatment. Selection of affordable instrumentation. Advantages and limits of laser in ophthalmology. Position of FDA and other International Institution on non surgical laser.

2004: laser therapy of spinal cord injuries in clinical practice; first diabetic patients treated with laser in Italy, following Helsinki declaration rules; news on mechanisms of ant inflammatory and regenerative effects of lasers on the human tissues; prostatectomy laser in day surgery; advantages and limits of endoluminal laser surgery of varicose veins; laser coupled with radio frequency scalpel for skin lesion treatment. Laser treatment of progenitor cells.

2005: Cesarean incision with laser. Photodyalisis laser for chronic degenerative conditions. Follow-up of laser therapy for diabetes. Laser therapy of traumatic spinal cord injuries. Action mechanism of laser beam on nervous tissue.

2006: Photopletismography multi laser in vascular diseases. News substances for PDT of lung cancer. Ant inflammatory and regenerative mechanisms of laser treatment of experimental myocardial infarct. News on Laser therapy in sport traumatology Radio protective effects of non surgical laser.

2007: Laser in stem cells therapy: preclinical phase. Laser therapy for traumatic and degenerative spinal cord injuries with live patients presentation. Follow-up of laser therapy in diabetes type 1 e 2. Laser therapy for female infertility. Laser vascular and aesthetic surgery. State-of-the art on laser dentistry and PDD/PDT.

2008: Laser in brain traumatic injuries; Laser therapy for male infertility. Laser and energetic medicine; laser and nervous progenitor cells.

2009: Guidelines for the use of non surgical lasers. Laser Diagnosis. Laser therapy for infertility. Laser and stem cells

2010: Follow up of positive results on central nervous system traumatic injuries. Laser therapy for peripheral nerve reconstruction. Laser therapy for prevenction of central nervous system post-traumatic damages. Laser diagnosis of early cancer of lung, uterus, breast, urinary bladder, prosthate. Laser and photodynamic therapy of prosthate cancer and lung cancer. Laser therapy of the menopause. Light for improving the follow-up of laser therapy of diabetes. Laser and stem cells for treatment of myocardial lesions.

#### IALMS - RESERVATION FORM FOR MEMBERSHIP

| Name:     |     | Title:      | Institutio | on:     |  |
|-----------|-----|-------------|------------|---------|--|
| Address:  |     | PostalCode  | City       | Country |  |
| Telephone | FAX | Email       |            |         |  |
| Specialty |     | Type of Mem | ber        |         |  |

#### It is my intention to subscribe the membership of the IALMS for the year..... Please indicate your choice(s) by ticking the appropriate box(es)

| Type of membership  | Eurodollars  |
|---|--------------|
| Founding: are members who have participated in the act of foundation or who will be admitted as such,       | 70           |
| up until 31 December 2000.  |              |
| Honorary: are nominated by Executive Committee for very high scientific and cultural merits. They do        | Nothing      |
| not pay the subscription fees.  |              |
| Fellow: after five years of membership, or after <i>three</i> presentations at different Academy Congresses | 70           |
| and/or publications in the Academy Journal. Fellowship is by application to the Executive Committee         |              |
| Ordinary: all the other members. Members are expected to pay the admission fees prevailing at the time      | 100          |
| of their admission.   |              |
| Scientific Societies and Associations : these pay one USD for each of their member, and each Society        | 1 for member |
| with minimum of 200 members can have one representative in the Executive Committee upon                     |              |
| application.  |              |
| Manufacturers: they can have a member in the Executive Committee; They can use the logo of the              | 500          |
| Academy on their brochures, subject to the approval of the Executive Committee.                             |              |
| Student:, based upon presentation of the curriculum vitae   | 70           |

#### I send with this form the total amount of the relevant fees (Please refer to the table up)

Payment may be made (In Euro Dollars) as follows:

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