Photodynamic Therapy - A Minimally Invasive Approach and Innovation in Health Care for South Africa conference 2012

This conference was supported by:
The German-South Africa Year of Science,
The African Laser Centre and CSIR,
The Laser Research Centre, University of Johannesburg.

As part of the German-South Africa Year of Science, the Laser Research Centre, Faculty of Health Sciences, University of Johannesburg, hosted an international conference, was held over 3 days from the 29 -31 October 2012. The conference, entitled "Photodynamic Therapy - A Minimally Invasive Approach and Innovation in Health Care for South Africa" covered both Research and Clinical aspects and applications of PDT, and these were addressed by plenary lectures from international experts in Photochemistry, Photobiology, Lasers, Laser Medicine and Biochemistry from Germany, Egypt and South Africa, as well as post graduate students, at the conference. The conference was also attended by South African scientists and post graduate students involved with Photodynamic Therapy research. The conference, which took place at the University of Johannesburg Auckland Park Kingsway Campus was a resounding success.

Day 1: 29th October 2012 - Opening Ceremony:
The opening ceremony was a cocktail event, attended by VIPs and conference delegates. The conference was officially opened and attendees were welcomed by Prof Heidi Abrahamse, Head: Laser Research Centre, University of Johannesburg. Prof Adam Habib, Deputy Vice-Chancellor: Research, Innovation & Advancement, University of Johannesburg, then gave a short introduction on the development of the University and its support of such conferences and international collaborations. His Excellency, Ambassador Freitag, German Ambassador to South Africa, reiterated the importance of international collaboration between Germany and South Africa and offered his support of further assistance through future German-South African initiatives. The Deputy Minister of Health, South Africa, Dr Gwen Ramokgopa, outlined the importance of new and innovative treatments necessary in South Africa to deal with the disease burden currently faced by the South African health care system. Prof Andre Swart, Executive Dean: Faculty of Health Sciences, University of Johannesburg, thanked all parties involved in the successful implementation of the conference. Other notable guests at the opening ceremony were, among others, Dr Ndumiso Cingo, Director of the National Laser Centre; Dr Paul Motolane, Manager of the African
Laser Centre; Mr Khaya Sishuba, Director of Bilateral Relations (Europe and Gulf States) from the Department of Science and Technology.

Dr Ndumiso Cingo (CSIR), Dr Paul Motalane (CSIR), Prof Mohamed Harith (University of Cairo), Prof Andre Swart (UJ), Dr Gwen Ramakgopa (Ministry of Health), Dr Freitag (German Embassy), Prof Heidi Abrahamse (UJ), Prof Rudolf Steiner (Ulm University)
Dr Freitag (German Embassy), Dr TJ Moore (UJ), Dr Angelika Rueck (Ulm University), Prof Peter Berlien (Elisabeth Clinic Berlin), Dr Karin Kunzi-Rapp (Ulm University), Prof Rudolf Steiner (Ulm University), Prof Heidi Abrahamse (UJ), Dr TJ Moore (UJ), Dr Zienab (Cairo University) Dr Ahmed El-Hussein (Cairo University), Prof Heidi Abrahamse (UJ) and Prof Mohamed Harith (Cairo University)
Day 2: 30th October 2012
Following a welcome message from Prof Andre Swart, Executive Dean: Faculty of Health Sciences, University of Johannesburg, and an introduction to the conference by Dr Paul Motolane, Manager of the African Laser Centre the following plenary lectures on the diversity of Lasers and PDT were presented:

Prof. Heidi Abrahamse, LRC, University of Johannesburg, Photodynamic Cancer Therapy: Past, Current and Future Advances
Prof. Dr. Rudolf Steiner, ILM, University of Ulm, Devices for Photodynamic Diagnosis and Therapy
Prof. Harith, NILES, Cairo University, Laser Induced Breakdown Spectroscopy in Bio-Medical Diagnostics
Dr. Angelika Rueck, ILM, University of Ulm, Time and Spectral Resolved Methods for Fluorescence Diagnosis in PDT
Dr Ahmed El-Hussein, NILES, Cairo University, Assessment of DNA Damage After Photodynamic Therapy Using a Metallophthalocyanine Photosensitizer

Followed by research presentation from post graduate students of the following:
Ana Popovic, UCT, Hypericin-Mediated PDT in Skin Cancer
Ms Palesa Sekhejane, LRC, UJ, Localization of Metallated Phthalocyanine PS in Cancer Cells Enhances Efficacy of PDT
Ms Ivy Nhundhuma, NLC, CSIR, Photodynamic therapy of skin cancer: current and future perspectives
Mr Ivan Mfouo Tynga, LRC, UJ, Phototherapeutic effects of ZNPsMmix and breast cancer
Ms Tina Kresfelder, LRC, UJ, Effect of PDT using Metallophthalocyanine Compounds on an Oesophageal Cancer Cell Line
Ms Tamarisk Horne, Biochemistry, LRC, UJ, Novel Sugar-Ligated Metallo-Porphyrazines as potential agents in PDT
Mr Louis Vorster, LRC, UJ, The Effect of 5-aza-deoxyctydine on Adenocarcinoma Cells Exposed to PDT

A conference dinner was held at the South African themed restaurant “Moyo’s” where delegates were able to enjoy South African food and hospitality as well as socialise and discuss their scientific work and future collaborations in a convivial atmosphere.
Day 3: 31st October 2012

On the final day of the conference, the plenary lectures had a more Clinical bent, in which the effectively and future potentials of PDT were realised.

Ms. Aletta Karsten, Biophotonics, NLC, CSIR, Influence of Skin Tone on Laser Treatment Dose Calculations

Dr. Carol Ann Benn, Breast Health Clinic, University of the Witwatersrand, Photodynamic Therapy and Its Application in Breast Cancer

Dr. Karin Kunzi-Rapp, ILM, University of Ulm, Photodynamic Therapy in Dermatology

Dr. Nicolette Houreld, LRC, UJ, Use of 5-ALA and metallophthalocyanine against human metastatic melanoma cells (in vitro)

Dr. Marianne Cronje, Biochemistry, UJ, Conflicting MCF-7 Cell Death Responses to In Vitro PDT with Two Novel Metallo-phthalocyanines

Dr Zienab, NILES, Cairo University, Laser Spectrochemical Characterization of Semen

Prof. Dr. Hans-Peter Berlien, Lasermedizin, Elisabeth Klinik, Berlin, Key Indications in PDT

Following the presentations, an open Panel Discussion was held in which all conference delegates were invited to participate. All delegates thanked the organisers and sponsors for organising and hosting a very successful conference. Primarily, delegates were eager to discuss the best ways forward in implementing PDT as an effective tool in treating a variety of diseases and ailments in South Africa.

The following issues were highlighted:

1. Future Collaborations
2. ALC support in conjunction with Ministry of Health
3. Engagement of South African clinicians in PDT trials
4. Future application and implementation of PDT in South Africa