



HEAD AND NECK OPTICAL DIAGNOSTICS SOCIETY (HNODS) The International Society of Minimally Invasive Diagnostics

Report on the first scientific meeting of the Head and Neck Optical Diagnostics Society held in the Education Centre, University College London Hospitals NHS Trust, London, UK on the 14th March 2009

The inaugural meeting of this society was held on Saturday 14th March 2009. The aims and objectives were introduced by the Chairman, Mr Colin Hopper, in his opening address. This society is dedicated to helping develop an application of optical diagnostic techniques in the head and neck and provide training networks for the exchange of information and education. The Chairman noted that it was very encouraging that so many senior figures from the world of optical diagnostics, from North America and many of the established universities throughout Europe, had given up their time at no cost to the organisation to help set up this organisation.

The theme was set by the first presentation by Ann Sandison, a senior pathologist from Imperial College London, who gave an introduction to the fundamental problems of the surgical resection margins. In this window talk, Dr Sandison mapped out the current state of pathology and limitations of conventional techniques. Following this first session, the father figure of elastics scattering spectroscopy, Irving Bigio, gave a talk on the theoretical aspects of ESS in detection of cancer and pre-cancer. This was followed by some specific examples of clinical applications of ESS in the head and neck given by Colin Hopper.

In the next session Herbert Stepp introduced the topic of fluorescent spectroscopy and imaging and this was followed by a clinical description by Christian Betz of applications of auto-fluorescence and enhanced fluorescence in head and neck cancer imaging. Next followed a session on optical coherence tomography with the theoretical aspects being described by Zhongping Chen from University California Irvine and this was followed up by a presentation from his colleague Brian Wong who spoke about the clinical application in head and neck.

The fourth session was dedicated to the discussion of the differential path-length spectroscopy presented by Henricus Sterenborg from the Erasmus Medical Centre, and then Max Witjes from Groningen gave a review of raman spectroscopy in clinical diagnosis.

Queries can be emailed to HNODS@headandneckoncology.org

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In the first session of the afternoon, there was a variety of presentations starting off with Adel El-Naggar from the MD Anderson Cancer Centre who described the role of histopathological and phenotypic assessment in the development and validation of optical diagnostic devices for head and neck mucosal lesions, this was then followed by Marco Novelli who gave an insight into ploidy analysis and finally Ann Gillenwater from the MD Anderson, who spoke about translational optical imaging technologies.

In the final session Brian Pogue spoke on the spectral scattering scanning systems followed by Giorgio Torsi who presented a case for FT-IR in head and neck tumours. Muriel Abbaci presented her work on confocal endomicroscopy and Zaid Hamdoon presented his work on OCT and there were two talks by Christian Betz on OCT and multiple fluorophore analysis. Sebastiaan De Visscher presented fluorescence kinetics of Foscan using the window-chamber model, and Yan Jiao presented the interrogation of skin pathology using elastic scattering spectroscopy.

Following this there were a number of workshops where participants of the course could examine the equipment used in optical coherence tomography, fluorescence diagnostics and elastic scatter spectroscopy.

The inaugural meeting of the council followed this where a number of topics were discussed in an open forum. There were suggestions made about the next meeting, for which there was a great deal of enthusiasm. As there are really too many meetings in the annual calendar, it was suggested that this should probably be bolted on to another meeting where most of the people who would be interested in optical diagnostics would be in attendance and various discussions are taking place to see how this can be made to work.

Finally, the evening closed with a Gala dinner in Il Soriso, a local restaurant. A more detailed proceeding of the scientific meeting will be published in The Head & Neck Oncology Journal.

Colin Hopper MD FDS FRCS

Chairman

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