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Contents

vii	Conference Committee
ix	Introduction

SESSION 1 FUNCTIONAL IMAGING I

- 8572 02 **Symmetry analysis of time to peak parameter of indocyanine green dynamics** [8572-1]
Y. An, J. Lee, C. Choi, Korea Advanced Institute of Science and Technology (Korea, Republic of)

SESSION 2 FUNCTIONAL IMAGING II

- 8572 04 **Photometric sensor system for a non-invasive real-time hemoglobin monitoring** [8572-6]
U. Timm, J. Kraitl, Univ. of Rostock (Germany); K. Schnurstein, German Red Cross Blood Donation Service (Germany); H. Ewald, Univ. of Rostock (Germany)
- 8572 05 **Laser reflectance oximetry and Doppler flowmetry in assessment of complex physiological parameters of cutaneous blood microcirculation** [8572-7]
A. V. Dunaev, Univ. of Dundee (United Kingdom); V. V. Sidorov, SPE LAZMA Ltd. (Russian Federation); N. A. Stewart, S. G. Sokolovski, E. U. Rafailov, Univ. of Dundee (United Kingdom)
- 8572 07 **Non-contact tissue perfusion and oxygenation imaging using a LED based multispectral and a thermal imaging system, first results of clinical intervention studies** [8572-9]
J. H. G. M. Klaessens, M. Nelisse, Univ. Medical Ctr. Utrecht (Netherlands); R. M. Verdaasdonk, Free Univ. Medical Ctr. (Netherlands); H. J. Noordmans, Univ. Medical Ctr. Utrecht (Netherlands)

SESSION 3 OPTICAL TOMOGRAPHY

- 8572 09 **Super-resolution method for arbitrary retrospective sampling in fluorescence tomography with raster scanning photodetectors** [8572-12]
X. Zhang, Duke Univ. Medical Ctr. (United States)
- 8572 0A **Portable wide-field hand-held NIR scanner** [8572-13]
Y.-J. Jung, M. Roman, J. Carrasquilla, S. J. Erickson, A. Godavarty, Florida International Univ. (United States)

SESSION 4 OPTICAL COHERENCE TOMOGRAPHY

- 8572 0E **A method to visualize lipid distribution within arterial vessel walls by 1.7 μ m spectroscopic spectral-domain optical coherence tomography** [8572-17]
M. Hirano, I. Sogawa, T. Hasegawa, M. Tanaka, Sumitomo Electric Industries, Ltd. (Japan)

- 8572 0I **High-resolution spectrometer: solution to the axial resolution and ranging depth trade-off of SD-OCT** [8572-22]

T. Marvdashti, H. Y. Lee, A. K. Ellerbee, Stanford Univ. (United States)

SESSION 5 FLUORESCENCE

- 8572 0K **Sentinel lymph nodes detection with an imaging system using Patent Blue V dye as fluorescent tracer** [8572-26]
F. Tellier, J. Steibel, R. Chabrier, ICUBE, CNRS, Univ. de Strasbourg (France); J. F. Rodier, Paul Strauss Cancer Ctr. (France); G. Pourroy, Institut de Physique et Chimie des Matériaux de Strasbourg, CNRS, Univ. de Strasbourg (France); P. Poulet, ICUBE, CNRS, Univ. de Strasbourg (France)
- 8572 0L **Laser line scanning illumination scheme for the enhancement of contrast and resolution for fluorescence reflectance imaging** [8572-27]
F. Fantoni, L. Hervé, V. Poher, CEA LETI (France); S. Gioux, Beth Israel Deaconess Medical Ctr. (United States); J. Mars, GIPSA Lab., CNRS, Institut National Polytechnique de Grenoble (France); J. M. Dinten, CEA LETI (France)
- 8572 0M **Combination of widefield fluorescence imaging and nonlinear optical microscopy of oral epithelial neoplasia** [8572-28]
R. Pal, The Univ. of Texas Medical Branch (United States); K. Edward, The Univ. of the West Indies (Jamaica); T. Brown, L. Ma, J. Yang, S. McCammon, The Univ. of Texas Medical Branch (United States); M. Motamedi, The Univ. of Texas Medical Branch (United States) and The Univ. of the West Indies (Jamaica); G. Vargas, The Univ. of Texas Medical Branch (United States)

SESSION 6 ENDOSCOPY, ETC.

- 8572 0N **Infrared dermal thermography on diabetic feet soles to predict ulcerations: a case study** [8572-29]
C. Liu, F. van der Heijden, Univ. Twente (Netherlands); M. E. Klein, DEMCON (Netherlands); J. G. van Baal, Hospital Group Twente (Netherlands); S. A. Bus, Hospital Group Twente (Netherlands) and Univ. of Amsterdam (Netherlands); J. J. Van Netten, Hospital Group Twente (Netherlands)
- 8572 0O **Laser scanning cytometry as a tool for biomarker validation** [8572-30]
A. Mittag, Univ. Leipzig (Germany); C. Földner, J. Lehmann, Fraunhofer Institute for Cell Therapy and Immunology (Germany); A. Tarnok, Univ. Leipzig (Germany)
- 8572 0Q **Wide-field flexible endoscope for simultaneous color and NIR fluorescence image acquisition during surveillance colonoscopy** [8572-32]
P. B. García-Allende, Helmholtz Zentrum München GmbH (Germany); W. B. Nagengast, Univ. Medisch Ctr. Groningen (Netherlands); J. Glatz, V. Ntziachristos, Helmholtz Zentrum München GmbH (Germany)
- 8572 0R **Real-time endoscopic guidance using near-infrared fluorescent light for thoracic surgery** [8572-33]
V. Venugopal, A. Stockdale, F. Neacsu, F. Kettenring, J. V. Frangioni, S. P. Gangadharan, S. Gioux, Beth Israel Deaconess Medical Ctr. (United States)

SESSION 7 NOVEL TECHNOLOGIES

- 8572 0S **Exploiting multimode waveguides for pure fibre based fluorescence imaging** [8572-34]
T. Čížmár, K. Dholakia, Univ. of St. Andrews (United Kingdom)
- 8572 0U **Mobile large area confocal scanner for imaging tumor margins: initial testing in the pathology department** [8572-36]
S. Abeytunge, Y. Li, B. Larson, G. Peterson, R. Toledo-Crow, M. Rajadhyaksha, Memorial Sloan-Kettering Cancer Ctr. (United States)
- 8572 0V **In-depth performance analysis of the HyperFlux spectrometer** [8572-37]
J. T. Meade, B. B. Behr, Y. Bismilla, A. T. Cenko, A. R. Hajian, Tornado Spectral Systems (Canada)

SESSION 8 VIBRATIONAL SPECTROSCOPY

- 8572 0X **Raman microspectrometer combined with scattering microscopy and lensless imaging for bacteria identification** [8572-39]
S. A. Strola, E. Schultz, C. P. Allier, CEA LETI (France); B. DesRoches, Tornado Spectral Systems (Canada); J. Lemmonier, J.-M. Dinten, CEA LETI (France)
- 8572 0Y **Classification of Raman spectra of bacteria using rank order kernels** [8572-40]
A. Kyriakides, Univ. of Cyprus (Cyprus) and KIOS Research Ctr. for Intelligent Systems and Networks (Cyprus); E. Kastanos, Univ. of Nicosia (Cyprus); K. Hadjigeorgiou, Univ. of Cyprus (Cyprus); C. Pitris, Univ. of Cyprus (Cyprus) and KIOS Research Ctr. for Intelligent Systems and Networks (Cyprus)
- 8572 0Z **Integrated fingerprint and high wavenumber confocal Raman spectroscopy for in vivo diagnosis of cervical precancer** [8572-41]
S. Duraipandian, W. Zheng, National Univ. of Singapore (Singapore); J. Ng, J. J. H. Low, A. Ilancheran, National Univ. Hospital and National Univ. of Singapore (Singapore); Z. Huang, National Univ. of Singapore (Singapore)
- 8572 11 **Quantitative and qualitative analysis of fluorescent substances and binary mixtures by use of shifted excitation Raman difference spectroscopy** [8572-43]
B. L. Volodin, S. Dolgy, PD-LD Inc. (United States); C. Lieber, H. Wu, W. Yang, BaySpec, Inc. (United States)
- 8572 12 **Tissue measurement using 1064 nm dispersive Raman spectroscopy** [8572-44]
C. A. Lieber, H. Wu, W. Yang, BaySpec, Inc. (United States)

SESSION 9 BIO-SENSORS

- 8572 13 **Utilization of fringe projection technique for evaluation of wound dimensions and of healing progress** [8572-45]
M. T. Saito, E. M. Yoshimura, Univ. de São Paulo (Brazil); F. F. Palácios, Univ. de Oriente (Cuba); A. C. L. Lino, Instituto Agrônômico (Brazil); G. F. Palácios, Univ. de Oriente (Cuba); M. V. P. Sousa, Univ. de São Paulo (Brazil)

- 8572 14 **Bloodstain age analysis: toward solid state fluorescent lifetime measurements** [8572-46]
K. Guo, N. Zhegalova, S. Achilefu, M. Y. Berezin, Washington Univ. School of Medicine in St. Louis (United States)
- 8572 15 **Using color intensity projections to visualize air flow in operating theaters with the goal of reducing infections** [8572-47]
K. S. Cover, N. van Asperen, J. de Jong, R. M. Verdaasdonk, Vrije Univ. Medical Ctr. (Netherlands)
- 8572 17 **Label-free biosensor based on long period grating** [8572-49]
F. Baldini, F. Chiavaioli, A. Giannetti, M. Brenzi, C. Trono, Istituto di Fisica Applicata Nello Carrara, CNR (Italy)
- 8572 18 **A portable microfluidic-based biophotonic sensor for extracellular H₂O₂ measurements** [8572-50]
V. Koman, G. Suárez, C. Santschi, V. J. Cadarso, J. Brugger, Ecole Polytechnique Fédérale de Lausanne (Switzerland); N. von Moos, V. I. Slaveykova, Institute F. A. Forel, Univ. of Geneva (Switzerland); O. J. F. Martin, Ecole Polytechnique Fédérale de Lausanne (Switzerland)

POSTER SESSION

- 8572 19 **Glucose measurement in interstitial fluid by microdialysis for the calibration of minimally invasive blood glucose monitoring** [8572-3]
D. Li, R. Wang, H. Chong, Y. Liu, K. Xu, Tianjin Univ. (China)
- 8572 1A **An optimized algorithm of image stitching in the case of a multi-modal probe for monitoring the evolution of scars** [8572-51]
R. Kassab, FEMTO-ST Institute, CNRS, Univ. de Franche-Comté (France); S. Treuillet, Lab. Prisme - Univ. d'Orléans (France); F. Marzani, Le2i Lab., CNRS, Univ. de Bourgogne (France); C. Pieralli, J. C. Lapayre, FEMTO-ST Institute, CNRS, Univ. de Franche-Comté (France)
- 8572 1D **The effect of borate polymer layers on glucose measurement by surface plasmon resonance** [8572-54]
D. Li, J. Yang, P. Wu, D. Yang, Tianjin Univ. (China); B. Wang, Y. Lin, Changchun Institute of Applied Chemistry (China); K. Xu, Tianjin Univ. (China)
- 8572 1G **Raman spectroscopy using time-correlated photon-counting detection** [8572-57]
Z. Meng, S. Cheng, G. I. Petrov, J. A. Jo, V. V. Yakovlev, Texas A&M Univ. (United States)
- 8572 1H **Normalized fluorescence lifetime imaging for tumor identification and margin delineation** [8572-23]
A. J. Sherman, A. Papour, S. Bhargava, Z. Taylor, W. S. Grundfest, O. M. Stafsudd, Univ. of California, Los Angeles (United States)
- 8572 1I **A time-domain diffuse optical/fluorescent tomography using multi-dimensional TCSPC design** [8572-11]
Y. Lu, W. Zhang, L. Wu, L. Zhang, F. Gao, Tianjin Univ. (China)

Author Index

Conference Committee

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- 1 Functional Imaging I
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- 2 Functional Imaging II
Anuradha Godavarty, Florida International University (United States)
Warren S. Grundfest, University of California, Los Angeles (United States)
- 3 Optical Tomography
Anuradha Godavarty, Florida International University (United States)
- 4 Optical Coherence Tomography
Jennifer K. Barton, The University of Arizona (United States)
- 5 Fluorescence
Laura Marcu, University of California, Davis (United States)
- 6 Endoscopy, etc.
Tuan Vo-Dinh, Duke University (United States)
- 7 Novel Technologies
Urs Utzinger, The University of Arizona (United States)

- 8 Vibrational Spectroscopy
Wolfgang Petrich, Roche Diagnostics (Germany)
- 9 Bio-Sensors
Maurice C. G. Aalders, Universiteit van Amsterdam (Netherlands)

Introduction

This volume continues the publication of advances in biomedical optical and related technologies for surgical applications and assist devices. The technologies presented in this volume represent the state-of-the-art in a field that is becoming increasingly important to patient care. These papers also represent the growth and success of interdisciplinary teams and demonstrate the benefits of interdisciplinary collaboration in the application of new technologies to the solutions of medical problems. Many of the papers in this volume have relied heavily on government funding and support for their development, but the transition to clinical practice requires productive capacity and industrial support. These papers illustrate the need for increased support of translational activities and development of academic, industry, and government partnerships to facilitate translation from proof of principle into clinical practice. Demonstration of feasibility is only the first step in the process of technology development and implementation. Many of the reports in this volume provide initial confirmation or verification of device feasibility. The reader is cautioned that translation of these technologies into clinical practice takes time and funding. However, these studies are an essential step in the process and provide a platform for future development.

Over the years this conference has seen an array of technologies evolve. Investigations presented in this volume represent continued steps in this evolutionary process. This evolution is driven by clinical need and may be limited by technical barriers, insufficient funds, and clinical practice patterns. Regulatory issues and intellectual property rights also influence technology development. The reader is advised to take these factors into account in assessing the impact of the technologies presented in this volume on clinical practice.

We hope the knowledge gained from this volume not only offers useful information for fundamental research and translational studies but also raises more questions than it answers, and thus provides the reader with a basis for future investigations.

**Anita Mahadevan-Jansen
Tuan Vo-Dinh
Warren S. Grundfest**