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Joseph A. Izatt
James G. Fujimoto
Valery V. Tuchin
Editors

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Introduction

These proceedings are from the Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XX, held February 15-17, 2016 at the SPIE Photonics West Symposia in San Francisco, California. This year's conference featured 134 oral and poster presentations from leading national and international research groups.

Optical coherence tomography and other coherence domain optical methods and instruments have proven to be effective tools for noninvasive medical diagnostics and monitoring a wide spectrum of pathologies as well as fundamental biomedical research. The focus of this conference was on the physical and mathematical grounds of coherence domain methods, as well as presentation of innovative instrumentation and techniques and their applications in biomedical science and clinical practice.

The conference was organized into several sessions including: Ophthalmic New Technology; Cardiac Applications; Flow and Perfusion Imaging; OCT New Technology; Adaptive/Computational Optics; Catheter/Endoscopic/Needle Probes; Brain, Small Animal and Hand-Held OCT; PS-OCT; Elastography; Image Processing; Novel Contrast Mechanisms; Novel Microscopy; and two poster sessions. A predominant fraction of the papers focused on optical coherence tomography – basic research, instrumentation and applications.

This year, there were presented significant advances in the development of new OCT technologies with discussion of OCT novel and upgraded technologies. The innovative hardware and software achievements in many cases were tested for biomedical applications to demonstrate their new facilities.

Many papers presented recent achievements in biological and clinical applications of OCT (five sessions: Ophthalmic New Technology; Cardiac Applications; Flow and Perfusion Imaging; Brain, Small Animal and Hand-Held OCT; and Elastography). This high quality research was a good addition to numerous OCT papers presented on Clinical Conferences of BiOS. Many of Conferences had special sessions on OCT, such as Photonics in Dermatology and Plastic Surgery; Therapeutics and Diagnostics in Urology; Optical Imaging, Therapeutics, and Advanced Technology in Head and Neck Surgery and Otolaryngology; Diagnostic and Therapeutic Applications of Light in Cardiology; Diagnosis and Treatment of Diseases in the Breast and Reproductive System II;

Clinical and Translational Neurophotonics; Endoscopic Microscopy XI; Optical Techniques in Pulmonary Medicine III; Lasers in Dentistry XXII; and Ophthalmic Technologies XXVI.

The poster session contained 50 papers on the major above mentioned topics. A short course for engineers, scientists, and clinicians *SC312 - Principles and Applications of Optical Coherence Tomography* by James Fujimoto accompanied the conference.

All submissions were fully peer reviewed. Authors were requested to submit a 3-page summary of their paper. The program committee evaluated the submissions for technical content and assigned a numerical score to each paper. The selection of the papers as oral presentations, posters, or non-acceptance was based upon the program committee score. We have had very positive feedback and a record number of submissions and attendees again this year.

Not all presented papers are published in this volume however the Conference Program and this Introduction reflect the full range of topics discussed during this very successful meeting.

The conference chairs would like to thank the members of the technical program committee for their help in organizing the conference. We sincerely appreciate the support of the SPIE and the conference staff. Finally, we would like to thank all of the conference attendees and manuscript authors for their contributions and participation which helped to make this meeting a success.

Joseph A. Izatt
James G. Fujimoto
Valery V. Tuchin