Novel Biophotonic Techniques and Applications

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Introduction

The European Conference on Biomedical Optics (ECBO), part of World of Photonics Congress / 20th International Congress on Photonics in Europe, took place in Munich, Germany on 22–26 May 2011. Its approximately 500 attendees were treated to five days of talks, posters, technical exhibits, and special events, with ample opportunities for discussing biophotonics science, making personal and scientific connections, and finding out the latest trends in our rapidly evolving interdisciplinary field. The ECBO program was organized into seven thematic sub-conferences, and the chairs of each solicited manuscripts from their respective oral and poster presenters. These were compiled into the 2011 ECBO proceedings volumes, with the one you are currently holding in your hands containing selected manuscripts from the Novel Biophotonic Techniques and Applications (NBTA) sub-conference.

The NBTA presentations were thematically diverse, as indicated by the session titles: Novel Imaging Approaches, Emerging Technologies: Models and Platforms, Photoacoustic Techniques, etc. As you read this volume, you will encounter interesting biophotonics studies using holographic, endoscopic, polarimetric, coherent, spectroscopic, speckle, photoacoustic, and other novel methods for advanced tissue assessment. Work on nanoparticle constructs, intravital microscopies, and light-tissue interaction models were also well represented at NBTA. Such breadth and variety nicely illustrates the diversity of research in this exciting field. We hope that as you read this and the other six proceedings volumes of the EBCO 2011, you will be inspired to (continue to) actively contribute to biophotonics research!

Henricus J. C. M. Sterenborg I. Alex Vitkin