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Introduction to the Biophotonics Congress 2018 feature issue

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Abstract: The guest editors introduce a feature issue containing papers based on research presented at the OSA Biophotonics Congress (the former BIOMED) held in Hollywood, FL, 2–6 April, 2018.

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Since 1994, The Optical Society has organized biennial topical meetings in the field of biomedical optics. This meeting focuses on research that has demonstrated human clinical applications, such as bioimaging or biosensing of human tissue specimens, first-to-human investigations of new optical imaging technologies for disease detection, diagnosis, or monitoring, clinical studies, and larger clinical trials.

This year's OSA Biophotonics Congress [1] was held in Hollywood, FL, 2–6 April 2018 and focused on technological solutions to biomedical and clinical challenges and applications, complementing the OSA Congress on Optics in Life Sciences. A large diversity of cuttingedge research and innovative new tools and techniques were covered, bringing together an international group of leading engineers, optical and medical scientists, and physicians, as well as junior researchers and graduate students, who are engaged in optical methods to advance discovery and application of medical science to clinical practice. For the second time the Biophotonics Congress comprised four topical meetings: (1) Clinical and Translational Biophotonics, co-chaired by Dr. Stefan Andersson-Engels (Ireland) and Dr. Thomas Wang (USA); (2) Optics and the Brain, co-chaired by Dr. Daniel Cote (Canada) and Dr. Joseph Culver (USA); (3) Optical Tomography and Spectroscopy, co-chaired by Dr. Hamid Dehghani (UK) and Dr. Daniel Razansky (Germany); (4) Microscopy, Histopathology and Analytics, co-chaired by Dr. Richard Levenson (USA) and Dr. Melissa Skala (USA). In addition to the excellent selection of plenary and invited speaker-led sessions and poster sessions, the meeting was noteworthy for its Near-Infrared Spectroscopy and Monte-Carlo training workshops, the networking event for student and early career professional development, discussion panel on clinical trial challenges across the globe, as well as the workshop on understanding unconscious biases in research.

The 20 papers published in this feature issue of *Biomedical Optics Express* cover a representative cross section of research presented at this year's meeting. The editors of this feature issue and organizers of the conference would like to take the opportunity to thank the authors and the reviewers for their contributions to this feature issue, as well as the presenters and attendees of the conference for their scientific presentations and active engagement in discussions which were so essential for the overall success of the Biophotonics Congress.

Finally, the organizers are pleased to invite you to the upcoming Biophotonics Congress: Optics in the Life Sciences taking place through 15-17 April 2019 in Tucson, AZ.

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