DEAR READERS!

Optical coherence tomography (OCT) is an emerging medical imaging modality for high-resolution visualization of tissue anatomy and physiology. Often referred to as the optical analogue of high-frequency ultrasound imaging (with important differences in underlying physics, contrast, resolution and penetration depth), OCT is indeed able to provide a detailed sub-surface look at tissue structure and function. Technological advances, preclinical demonstrations, and clinical applications are all actively pursued by OCT researchers and practitioners world-wide. This special issue entitled “Optical coherence tomography: novel methodologies and emerging biomedical applications” shows representative examples of this exciting activity.

Specifically, the 14 special submissions to this issue demonstrate the breadth and versatility of OCT. Clinical sites of interest covered in these articles include eyes, teeth, arterial tissue, upper and lower GI, cartilage as well as gynecological and neurological applications. This impressive variety is pursued by scientists and clinicians across the globe, as represented by submissions from Austria, Canada, Great Britain, New Zealand, Russia, and the United States. Thematically, we have grouped the 14 articles comprising this issue into approximate categories dealing with ‘improved methodologies’ (articles 1–5), ‘novel studies’ (6–9), ‘preclinical and clinical analysis’ (10–12), and ‘reviews of utilization’ (13–14).

We thank the article authors for their leading-edge research and high-quality submissions, and hope that the readers of “Sovremennye tehnologii v medicine” (Modern Technologies in Medicine) will be ‘enlightened’ by this glimpse of the exciting potential and the varied emerging / established clinical applications of OCT.

The broad geographic spectrum of submissions to this special OCT issue underscores the international nature of scientific, technological and clinical progress, something that this journal is well aware of. There are plans to build upon the success of this topical edition by publishing further special issues that cover various topics of interest to “Sovremennye tehnologii v medicine” readers while drawing upon the expertise of scientists and clinicians across the globe. The Editorial Board of “Sovremennye tehnologii v medicine” welcomes suggestions from its community for such suitable topics.

Sincerely,

Alex Vitkin, University of Toronto, Canada
Natalia Gladkova, Nizhny Novgorod State Medical Academy, Russia