

GUEST EDITORIAL

Optical Diagnostic Imaging from Bench to Bedside

The fifth Inter-Institute Workshop on Optical Imaging from Bench to Bedside was held at the National Institutes of Health (NIH) in Bethesda, Maryland, in September 2006. Since the first workshop in 1999, translating optical imaging devices from the bench to the bedside has become much more important. The latest advances in molecular imaging, optical devices and methods in drug discovery, optics in neuroscience, and new optical devices and methods were presented at the workshop.

With the support of different NIH institutes and centers, the 2006 workshop was extremely successful. More than 400 people attended the workshop including university researchers, students, government scientists, and industrial entrepreneurs and scientists (from the United States and abroad).

The workshop was three days long consisting of 10 sessions with 49 presentations, 135 posters, and 3 panel discussions. Discussions held officially and unofficially during the workshop were very fruitful and enlightening.

We continued the tradition of supporting the spirit of the NIH Roadmap at the workshop. The NIH Roadmap includes two major initiatives: one on molecular imaging and one on translational and interdisciplinary research. Molecular imaging at NIH was highlighted in a presentation by the director of NIH's new Imaging Probe Development Center (IPDC), Dr. Gary Griffiths, who published a paper in this special section about the IPDC and probes the IPDC has developed.

Presentations by Dr. Alan Koretsky, Scientific Director of the National Institute of Neurological Disorders and Stroke

(NINDS), and Dr. Robert Balaban, Scientific Director of the National Heart, Lung, and Blood Institute (NHLBI), showed the enthusiasm of NIH's intramural research for biophotonics.

Neuroimaging is getting a lot of attention at the NIH—exemplified by the new neuroscience building at the NIH (seen on the cover of this issue)—and biophotonics have shown great potential in this field. Dr. Elizabeth Hillman of Columbia University was invited to write an extensive review on this subject for this special section.

As another established tradition, this workshop honored Professor Brian Wilson of the University of Toronto for his extraordinary pioneering contributions to the translation of optical technologies from blackboard to benchtop to bedside. We invited Professor Wilson to write a comprehensive review article on the challenges of translational biophotonics and it is included in this special section.

Excellent papers in this special section describe research being translated from the bench to the bedside. We hope you will enjoy reading it as much as we enjoyed editing it.

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Special Section Guest Editors