

EDITORIAL

Optics within life sciences 2016

To cite this article: Sudipta Maiti and Guruswamy Krishnamoorthy 2017 *Methods Appl. Fluoresc.* **5** 020201

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EDITORIAL

Optics within life sciences 2016

Guest Editors

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PUBLISHED
4 April 2017

The Optics Within Life Sciences conference, popularly known as OWLS, is an international biennial meeting which discusses the application of light-based techniques to Biology. OWLS landed in India for the first time at the Tata Institute of Fundamental Research (TIFR), Mumbai on 16 March 2016. The theme of fluorescence had more than its usual share in this edition, since it was held in conjunction with the National Fluorescence Workshop, which is organized annually in different locations in India by the Fluorescence Society (fluorescenceindia.org). The workshop preceded the conference and provided about 100 selected participants intense hands-on training on techniques ranging from imaging to ultrafast spectroscopy. The conference had about 300 participants, and consisted of about 200 scientific presentations (in the form of posters and platform talks). 13 of those presenters are represented in this volume. Their work provides a glimpse of the diversity and quality of the meeting. Of course, these manuscripts were submitted sometime after the actual meeting, and some of them contain data which were not presented in the meeting.

The articles presented in this issue cover a wide spectrum of topics such as site-specific fluorescence dynamics in synuclein, single molecule FRET and

polymer theory, orientation of single molecules in membranes, diffusion dynamics in membranes, solvation of G-quadruplex DNA, interaction of lytic peptide with supported bilayer membrane, fluorescent labelling of 5-hydroxymethylcytosine, tracking of colloidal nanostructures by 2-photon fluorescence, NIR-excited photoluminescence of Nd-doped Y_2O_3 , fluorescent carbon dots for super-resolution microscopy, interaction of actin with nesprin2 in maintaining cell nucleus in pre-stressed state, estimation of spatial distribution of analyte within cells by spectrally resolved fluorescence microscopy and micellar control of tautomerization of lumichrome.

We sincerely thank the authors who agreed to publish their work in this issue. Of course, each of the manuscripts went through a rigorous peer review, as is the norm for this journal, and not all were accepted for publication. The discussions during the meeting were intense and frank. We hope that some of that has enriched the manuscripts that are presented here, and the reader gets the flavour of those discussions, and of the meeting as a whole, by perusing these manuscripts. We sincerely thank the Editorial Board of this journal for providing us an opportunity to showcase some of the work presented in OWLS.