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Analytical techniques

Editorial overview

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Dr Chris D Geddes is a Professor of Fluorescence and Clinical Sensing, Director of the Institute of Fluorescence and Associate Director of the Center for Fluorescence Spectroscopy at the University of Maryland Biotechnology Institute, Medical Biotechnology Center, Baltimore. He has a BSc from Lancaster University, UK and a PhD in physical chemistry (fluorescence spectroscopy) from the University of Wales Swansea, UK. He is the Editor-in-Chief of the *Journal of Fluorescence*, *Plasmonics, Who's Who in Fluorescence*, *Reviews in Plasmonics*, *Reviews in Fluorescence*, Co-Editor of the popular series *Topics in Fluorescence Spectroscopy*, as well as Executive Director of the Society of Fluorescence. Dr Geddes has published over 110 scientific articles, papers, review articles and book chapters, as well as 10 books on the principles and applications of fluorescence. Current interests in Dr Geddes's laboratories include the development of analyte sensing contact lenses for clinical assessment, as well as the development and understanding of a new near field concept, entitled metal-enhanced fluorescence.

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Ramachandram Badugu is an Assistant Professor at Center Fluorescence Spectroscopy. He has BSc in biological sciences and MSc in chemistry from Osmania University, Hyderabad, India. Subsequently, he moved to University of Hyderabad where he worked with Professor Anunay Samanta to obtain his MPhil and PhD in chemistry. He is recipient of JSPS fellowship meant for outstanding foreign researchers from Japan Society for the Promotion of Science during which he worked with Professor Mitsuo Kira at Department of Chemistry, Graduate School of Science, Tohoku University, Sendai, Japan. After completing the JSPS term, he worked as a Frontier Research Scientist with Professor Kenkichi Sakamoto at Photodynamics Research Center, The Institute of Physical and Chemical Research (RIKEN), Sendai, Japan. Subsequently he moved to Center for Fluorescence Spectroscopy in early 2003 as a postdoctoral fellow where he is working with Professor Joseph R Lakowicz. His research interest lies in the development of devises for small-molecule sensing. His recent and most attractive area of research is designing the analyte (such as glucose, potassium, etc.) sensitive contact lenses for ophthalmic continuous monitoring.

Current Opinion in Chemical Biology continues its tradition of publishing reviews pertaining to *Analytical techniques*. This year, the editors have made an extra effort to coordinate reviews that are not only in the main stream of the analytical sciences, but are also emerging disciplines and ones likely to become at the forefront of analytical techniques in the near future. A special effort has been made, therefore, to select timely reviews in this regard.

Reviews include traditional topics, such as the current uses of NMR in protein analysis and the mass spectral analysis of biomolecular interactions, as well as more exotic and emerging areas of analytical research such as: surface enhanced Raman scattering (SERS) for narcotic detection; the current perspectives of zinc sensing in cells; the role of quantum dots as new molecular probes in chemical biology; fiber-optic sensors and their applications in chemical biology, and the emerging uses and future visions of plasmon light scattering in both biology and medicine.

These articles should serve to provide readers with an overview of current and exciting emerging analytical techniques. In closing, we would like to thank the authors for their excellent timely contributions, which clearly show the diversity of analytical techniques in chemical biology.