



# Expert Application

By Dr Barry Boyes  
and Dr Ron Orlando,  
Chairs of ISPPP 2015

As separation science continues to develop and expand into new areas, this year's ISPPP event – held on 29-31 July in Philadelphia – aims to bring together the sector's movers and shakers in a dynamic environment of debate and discussion

It is an exciting time for biochemists and process engineers using separation science. The field continues to grow and adapt, enjoying better materials, instruments and methods, and a seemingly never-ending list of interesting molecules to work on. For the past 35 years, the International Symposium on Separations of Proteins, Peptides and Polynucleotides (ISPPP) – founded in 1980 by Professors Fred Regnier and Milton Hearn – has been uniquely focused on bringing together experts on the materials and methods of

biomolecule separations, with specialists developing applications for discovery, analysis and structural characterisation of biomolecules.

## Science for All

The upcoming symposium will feature a programme well-balanced between basic science centring on biomolecule separations, and applications development for the discovery and analysis of biotherapeutic proteins, modifications thereof, nucleic acids, metabolic transformations and complex carbohydrates.

Turkey, and the upcoming event will take place between 29-31 July in Philadelphia, US.

Over the course of the conference, there is ample opportunity to engage with presenters, attendees and exhibitors during and after the various presentations. In addition to scheduled lectures, there are poster sessions, an exhibition area and expert tutorials. As with past ISPPPs, the meeting is organised to encourage an atmosphere of collegial interactions and the formation of collaborative efforts. There will be various social events, including an opening reception and symposium banquet.

## On the Agenda

This year's ISPPP will be co-chaired by Dr Barry E Boyes and Dr Ron Orlando – two long-standing supporters of the event. Furthermore, a Program Committee and International Conference

## Keywords

Biomolecule separations  
High-resolution analytical applications  
Humanised monoclonal antibodies  
Collaborative approach



The ISPPP is a truly international symposium, with alternate meetings organised in Europe and North America. The 34th ISPPP was held in Istanbul,

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Committee are working with the chairpersons to provide an exciting and relevant programme.

Highlighted themes include:

- Proteomics, glycoproteomics and phosphoproteomics
- Therapeutic biomolecules and biosimilars
- Monoclonal antibody analytics
- Novel protein structure analysis
- Novel separations materials and methods
- Interactions, aggregation and conformational effects
- Nucleic acids
- Metabolomics and enzyme analyses
- Glycans and complex carbohydrates

This year's programme will be rich in examples of high-resolution analytical applications, particularly the use of liquid chromatography (LC) and liquid chromatography/mass spectrometry (LC/MS) methods for complex molecule analyses and applications of high-resolution methods during target discovery, validation and product development. This is particularly relevant at a time when therapeutic and diagnostic humanised monoclonal antibodies are undergoing an explosive growth in clinical and research applications. The programme features many

case studies of novel separations applications and MS technologies by practised scientists from biopharmaceutical, industrial and academic organisations.

Tutorial sessions will be presented by two well-known separations experts: Dr Andrew Alpert, Managing Director at PolyLC, who will discuss an 'Overview of protein and peptide separations via various modes of chromatography'; and Dr Mark Schure of Kroungold Analytical, who will present on 'Pore size and particle size in liquid chromatography: physicochemical mechanism(s) and implications for laboratory utilisation'.

### Collaborative Symposia

Starting with the 33rd ISPPP conference, we have enjoyed a joint assembly with the PREP Symposium – held on 26-29 July and chaired by Professor Giorgio Carta of the University of Virginia – and will again this year in Philadelphia. This joining of symposia offers a great opportunity for synergy on a joint day (29 July) and throughout the week.

Our congratulations go to PREP's Chairman and his excellent committees on a great programme that will include a session honouring the late Professor Georges Guiochon.

Both symposia will feature exhibitor areas, allowing attendees to share and receive valuable information on recent and upcoming commercial products and services.

For more information on both events, visit: [www.isppp.org](http://www.isppp.org)  
[www.prepsymposium.org](http://www.prepsymposium.org)



Dr Barry Boyes, ISPPP 2015 Co-Chair, is Director of Bioscience R&D at Advanced Materials Technologies. Having completed a BSc in Biochemistry and a PhD in Neuroscience, Barry began working for the DuPont Company and, later, Rockland

Technologies, where he focused on developing a variety of products and technologies for biomolecule separations. He has since held a variety of roles in R&D and product development, and recent efforts have been on refining superficially porous particles for peptide, protein and glycoprotein analysis by LC and LC/MS methods. He is an Adjunct Professor of Chemistry at the University of Georgia, US. Email: [bboyes@advanced-materials-tech.com](mailto:bboyes@advanced-materials-tech.com)



Dr Ron Orlando, ISPPP 2015 Co-Chair, received his BS in Natural Science and PhD in Chemistry before serving as a postdoctoral fellow at the University of Maryland. After two years spent as Senior Scientist at the Suntory Institute of

BioOrganic Research, he joined the faculty of the Complex Carbohydrate Research Center at the University of Georgia, US, where he is currently a Professor of Biochemistry and Molecular Biology and Chemistry. Ron has over 30 years of experience working with MS, 26 of which focused on the identification, characterisation and quantification of proteins and their post-translational modifications. Email: [orlando@ccrc.uga.edu](mailto:orlando@ccrc.uga.edu)