

**Analytical Research Forum  
University of Strathclyde, Glasgow, UK  
16 – 18 July 2007**

**Provisional Programme**

**Monday 16 July**

<b>14:00</b>	<b>Registration</b> (John Anderson Building)
<b>16:00 – 19:00</b>	<b>Poster session and wine reception</b> (Barony Hall)
<b>19:00</b>	<b>Dinner</b> (Lord Todd Restaurant)

**Tuesday 17 July**

<b>9:00</b>	<b>Welcome and Opening Remarks</b> Professor Andrew Hamnett <i>Principal and Vice Chancellor of the University of Strathclyde, UK</i>
<b>Session 1</b>	<b>Chairs:</b> Paul Worsfold, <i>University of Plymouth, UK</i> Karen Faulds, <i>University of Strathclyde, UK</i>
<b>9:10</b>	<b>KEYNOTE (with RSC Chromatography and Electrophoresis Group Meeting)</b> <b>The future of detection technology</b> Peter Fielden <i>University of Manchester, UK</i>
<b>9:50</b>	<b>Single base mismatch determination using DNA - silver nanoparticle conjugates</b> David Thompson*, Karen Faulds, W Ewen Smith and Duncan Graham <i>University of Strathclyde, UK</i>
<b>10:10</b>	<b>Detection of insulin at the liquid-liquid interface</b> Francine Kivlehan*, Yvonne H Lanyon and Damien W M Arrigan <i>University College Cork, Ireland</i>
<b>10:30</b>	<b>The distribution of depleted uranium contamination surrounding a former metals plant</b> Nicholas S Lloyd*, R R Parrish, T S Brewer and S R N Chenery <i>University of Leicester, UK</i>
<b>10:50</b>	<b>Morning Coffee</b>
<b>11:10</b>	<b>KEYNOTE</b> <b>Process Analytics: making measurements in refineries and petrochemical plants</b> Jeff Gunnell* <i>ExxonMobil Chemical Ltd, UK</i>
<b>11.50</b>	<b>Ultra-sensitive gas phase detection using optical cavities and diode lasers</b> Stuart Baran*, Luca Ciaffoni, Gus Hancock, Nicola van Leeuwen and Grant Ritchie <i>University of Oxford, UK</i>
<b>12:10</b>	<b>Availability of PAH compounds in pore-waters and sediments from a Scottish sea loch</b> K Yates*, I M Davies, L Webster, P Pollard, L Lawton and C F Moffat <i>The Robert Gordon University and FRS Marine Laboratory, Aberdeen, UK</i>
<b>12:30</b>	<b>Lunch and Poster Session</b> (Barony Hall)

<b>Session 2</b>	<b>Chair:</b> Duncan Graham, <i>University of Strathclyde, UK</i>
<b>14:15</b>	<b>KEYNOTE</b> <b>Analysing abiotic perturbations to biological systems using metabolomics and machine learning</b> Roy Goodacre* <i>University of Manchester, UK</i>
<b>15:00</b>	<b>Determination of the factors controlling the dissolution of aerosol iron in seawater by flow injection with chemiluminescence detection</b> Marie Séguret*, Malcolm Nimmo, Simon Ussher and Paul Worsfold <i>University of Plymouth, UK</i>
<b>15:20</b>	<b>Analysis of peptides by on-line capillary column immobilised metal affinity chromatography / electrospray ionisation mass spectrometry and ion mobility spectrometry</b> Gushinder Kaur-Atwal*, Daniel J Weston, Philip S Green, Susan Crosland, Philip L R Bonner and Colin S Creaser <i>Nottingham Trent University, UK</i>
<b>15:40</b>	<b>Afternoon Tea</b>
<b>16:00</b>	<b>KEYNOTE</b> <b>Analytical bionanotechnology with particles, dots and chips</b> David Russell* <i>University of East Anglia, UK</i>
<b>16:40</b>	<b>Online monitoring of an industrial polypropylene polymerisation reaction using adaptive sample selection</b> Tom Dearing* and Anthony D Walmsley <i>University of Hull, UK</i>
<b>17:00</b>	<b>Enhanced immunoanalysis based on gold nanoparticle labels</b> Adriano Ambrosi*, Arben Merkoçi, Anthony J Killard, Salvador Alegret and Malcolm R Smyth <i>Dublin City University, Ireland</i>
<b>17:20</b>	<b>End of sessions</b>
<b>18:30</b>	<b>Pre-dinner drinks</b> (Barony Hall)
<b>19:00</b>	<b>Conference Dinner</b> (Barony Hall) followed by <b>Ceilidh</b>

### Wednesday 18 July

<b>Session 3</b>	<b>Chair:</b> Malcolm Smyth, <i>President of the Analytical Division of the RSC</i>
<b>09.00</b>	<b>RONALD BELCHER MEMORIAL LECTURESHIPS</b> Rachel Evans, <i>Swansea University, UK</i> Claire Schofield, <i>University of East Anglia, UK</i>
<b>10.00</b>	<b>Quantitative potential of mass spectrometry for the analysis of host cell proteins in biopharmaceutical products</b> Z Hall*, M Quaglia, W Burkitt and G O'Connor <i>LGC, UK</i>
<b>10.20</b>	<b>LC-MS-based system for the analysis of glycolytic intermediates and sugar phosphates from plant tissues</b> Carla Antonio*, Tony Larson, Alison Gilday, Ian Graham, Ed Bergström and Jane Thomas-Oates <i>University of York, UK</i>
<b>10.40</b>	<b>Morning Coffee</b>
<b>11.00</b>	<b>KEYNOTE</b> <b>Analytical science in the museum context</b> David Saunders* <i>The British Museum, London, UK</i>
<b>11.40</b>	<b>Polymer sequencing using force spectroscopy</b> A Dunlop*, A Round, J Wattoom, E Hasan and T Cosgrove <i>University of Bristol, UK</i>
<b>12:00</b>	<b>Development of biosensors for the in vivo detection of brain extracellular D- and L-aspartate</b> E Sheridan*, T P Obrenovich, G Tedeschi and J P Lowry <i>National University of Ireland, Ireland</i>
<b>12:20</b>	<b>Lunch</b> (Lord Todd Restaurant)

<b>Session 4</b>	<b>Chair:</b> Christine Davidson, <i>University of Strathclyde, UK</i>
<b>13:30</b>	<b>SAC SILVER MEDAL LECTURE</b> R A W Dryfe* <i>The University of Manchester, UK</i> Introduced by: Malcolm Smyth, <i>President of the Analytical Division of the RSC</i>
<b>14:10</b>	<b>Quantification and speciation of arsenic compounds</b> K Uroic*, E Krupp and J Feldmann <i>University of Aberdeen, UK</i>
<b>14:30</b>	<b>Characterization of a catalase-based hydrogen peroxide biosensor</b> K B O'Brien*, R D O'Neill and J P Lowry <i>University College Dublin, Ireland</i>
<b>14:50</b>	<b>Afternoon Tea</b>
<b>15:10</b>	<b>Probing conformational changes in metalloproteins by Ion Mobility Mass Spectrometry</b> Peter A Faull* and Perdita E Barran <i>University of Edinburgh, UK</i>
<b>15:30</b>	<b>Time dependence of SERS enhancement for nucleic acid components</b> Alison J Hobro* and Ewan W Blanch <i>University of Manchester, UK</i>
<b>15:50</b>	<b>KEYNOTE</b> <b>Messages from molecules; sensing and computing</b> Gareth J Brown, A Prasanna de Silva*, David B Fox, Kaoru Iwai, Gareth D McClean, Bernadine O F McKinney, David C Magri, Thomas S Moody, Sara Pagliari, Seiichi Uchiyama and Sheenagh M Weir <i>Queens University Belfast, UK</i>
<b>16:30</b>	<b>Closing Remarks and Prize Giving</b> Professor Malcolm Smyth CChem FRSC <i>President of the Analytical Division of the RSC</i>
<b>16.45</b>	<b>Close of Meeting</b>