

**European Conference on Spectroscopy of
Biological Molecules 15
St Catherine's College Oxford 2013
25 to 30 August 2013
CONFERENCE PROGRAMME**

Sunday 25th August 2013

14:00	Registration St Catherine's Reception (From Monday morning in the Bernard Sunley Building)
18:00	Welcome Reception and Mingle JCR Bar Area
19:00	Dinner St Catherine's Dining Hall

Monday 26th August 2013 - Morning

	Bernard Sunley Lecture Theatre	
08:50	Welcome	
	Session Chair – Roger Bisby	
09:00	Plenary Opening Address - Stefan Hell <i>Nanoscopy With Focused Light</i> Max Planck Institute for Biophysical Chemistry Göttingen, Germany	
09:50	Invited - Achillefs Kapanidis <i>Super-Resolution Imaging of Transcription and DNA Repair in Bacterial Cells</i> University of Oxford, UK	
10:20	Invited - David Birch <i>Fluorescence Lifetime Sensing Of Glucose</i> University of Strathclyde, UK	
10:40	Break JCR Bar Area	
11:15	Invited - Robert Pal <i>Bright Luminescent Europium(III) Probes as Alternative Organelle Stains</i> Durham University, UK	
11:45	Invited - Brigida Bochicchio <i>The Elastin Puzzle: A Molecular and Supramolecular Study</i> University of Basilicata, Potenza, Italy	
12:15	5 minutes repositioning	
	Session 1 BSLT Bernard Sunley Lecture Theatre Session Chair – Katherine Lau	Session 2 JCRLT JCR Lecture Theatre Session Chair - Joachim Heberle
12:20	Selected - J. Fitter <i>Substrate Induced Changes in the Dynamics of Phosphoglycerate Kinase Studied by Single-Molecule FRET</i> RWTH Aachen University, Germany	Selected - C. Große <i>Monitoring The Intracellular Infection Process Of Staphylococcus Aureus With Confocal Raman Spectroscopy</i> Jena University Hospital, Germany
12:40	Selected - K. Majzner <i>Label-Free Studies Of Lipid Droplets In Primary Endothelial Cell By Confocal Raman Spectroscopy</i> Jagiellonian University, Poland	Selected - A.G. Bezerra-Jr <i>Why Golden Grass Appears Like Gold: Investigating The Optical Properties Of Syngonanthus Nitens</i> Federal University of Technology, Brazil
13:00	Lunch St Catherine's Dining Hall Teas & Coffees in Hall	
14:00	Conference Photograph	

Monday 26th August 2013 - Afternoon

14:20	Bernard Sunley Lecture Theatre	
	Session Chair – Majed Chergui	
14:20	Plenary - Niek F. van Hulst <i>Femtosecond Spectroscopy On Single Light-Harvesting Complexes Reveals Robust Coherent Energy Transfer</i> ICFO –Institute of Photonic Sciences, Spain	
15:10	Invited – Susan Quinn <i>Identifying Excited State Intermediates in Nucleic Acids An Ultrafast Infrared time-resolved vibrational Spectroscopy study</i> University College Dublin, Ireland	
15:40	Invited - Anita Jones <i>Probing DNA Conformation and DNA-Enzyme Interaction by Time-Resolved Fluorescence</i> The University of Edinburgh, UK	
16:10	Break JCR Bar Area	
	Session Chair – Chris Stubbs	
16:40	Selected – T.J. Sørensen <i>Molecular Probes For Polarisation/Anisotropy Based Determination Of Rotational Dynamics In Large Biomolecules</i> University of Copenhagen, Denmark	
17:00	Selected - F. Jamme <i>Shining Synchrotron Light Into Cells and Tissues</i> Synchrotron SOLEIL, France	
17:20	5 minutes repositioning	
	Session 1 BSLT Bernard Sunley Lecture Theatre Session Chair – Costantinos Varotsis	Session 2 JCRLT JCR Lecture Theatre Session Chair – Robert Pal
17:25	Selected - S. Woutersen <i>The Effect Of Salt Bridges On The Speed Of Folding</i> University of Amsterdam, The Netherlands	Selected - A. Terry <i>Making Light Work Of Spinning Silk</i> STFC Rutherford Appleton Laboratory, UK
17:45- 18:05	Selected - P. Praus <i>Aptamer Cellular Uptake Monitored By Using Time-Resolved Microspectrofluorimetry</i> Charles University in Prague, Czech Republic	Selected - R. Vanna <i>Raman Spectroscopy For The Assessment Of Acute Myeloid Leukaemia Subtypes</i> Laboratory of Nanomedicine and Clinical Biophotonics, Italy and University of Twente, The Netherlands
19:00	Dinner St Catherines’s Dining Hall Teas & Coffees in JCR Bar Area	
20:00	Poster Session Bernard Sunley Building	

Tuesday 27th August 2013

Bernard Sunley Lecture Theatre

	Session Chair – Steve Faulkner	
08:50	Plenary - Majed Chergui <i>Time-Resolved X-Ray and Two-Dimensional Ultraviolet Spectroscopy Of Biological Systems</i> Ecole Polytechnique Fédérale de Lausanne, Switzerland	
09:30	Invited - Tobias Brixner <i>Ultrafast Spectroscopy Of CORMs and Porphyrins</i> Universität Würzburg, Germany	
10:00	Break JCR Bar Area	
	Session 1 BSLT Bernard Sunley Lecture Theatre Session Chair – Sander Woutersen	Session 2 JCRLT JCR Lecture Theatre Session Chair – Eleanor Bonnist
10:25	Selected - M. Levantino <i>Time-Resolved X-Ray Scattering As A Tool To Probe The Structural Dynamics Of Proteins In Solution</i> University of Palermo, Italy	Selected - U. Böcker <i>Characterisation Of Metabolic Changes In Cell Model Systems Using Vibrational Spectroscopy</i> Nofima - Norwegian Institute of Food, Fisheries and Aquaculture Research, Norway
10:45	Selected - M. Kloz <i>Femtosecond Stimulated Raman Spectroscopy In 1D and 2D</i> VU University, The Netherlands	Selected - R. Vyumvuhore <i>Skin Hydration and Mechanical Stress Mechanism: Molecular Aspects Of The Lipid Barrier State and Protein Structure</i> University of Paris-Sud, France
11:05	Selected - V. Profant <i>Detection Of The Polyproline : Conformation By ROA</i> Charles University Prague, Czech Republic	Selected – N.K. Afseth <i>Through-Skin Sub Surface Analysis Of Intact Salmon Using Spatially Offset Raman Spectroscopy</i> Nofima – Norwegian Institute of Food, Fisheries and Aquaculture Research, Norway
11:25	Selected - K. Hauser <i>Impact Of Hydrophobic Versus Aromatic Interactions On The Folding Dynamics Of Hairpin Peptides Studied With Laser-Induced Temperature-Jump IR-Spectroscopy</i> University of Konstanz, Germany	Selected – A.R.L. Caires <i>Effects Of Glyphosate On Glyphosate-Tolerant Soybean Plants: In Vivo Analysis By Chlorophyll A Fluorescence</i> Universidade Federal da Grande Dourados, Brazil
11:45-12:05	Selected – M.P.M. Marques <i>Polymorphism in Anticancer Drugs Probed by Simultaneous INS and Raman Scattering</i> Universidade de Coimbra, Portugal	Selected - A. Tfayli <i>Structure and Organization Of Cutaneous Lipids In Reconstructed Skin Model: Raman Microspectroscopy and HPLC Analysis</i> University of Paris-Sud, France
12:05	5 minutes repositioning	
	Bernard Sunley Lecture Theatre Session Chair – Hugh Barr	
12:10	Invited - Klaus Gerwert <i>Vibrational-Spectroscopy At Different Scales: Tissue, Cells, Membranes and Proteins</i> Ruhr University Bochum, Germany	

12:30	<p align="center">Student Prize – J. Somkuti Royal Society of Chemistry Award <i>Structural Changes In Allergens Studied By High Pressure FTIR</i> Semmelweis University, Hungary</p>	
12:40	<p align="center">Student Prize – F. Poynton Royal Society of Chemistry Award <i>Investigation Of The Interactions Of Pdppz-Ruthenium With DNA In Solution and In Vitro By Confocal Microscopy and Ultrafast Spectroscopy</i> Trinity College Dublin, Ireland</p>	
12:50	<p align="center">Student Prize – M.A. Pleitez IOS Publishing Award <i>In Vivo Mid-IR Photoacoustic Spectroscopy Of Human Epidermis</i> Johann Wolfgang Goethe-Universität Frankfurt am Main, Germany</p>	
13:00	<p align="center">Lunch St Catherine's Dining Hall Teas & Coffees in Hall</p>	
13:30	<p align="center">JCR Lecture Theatre <i>Horiba Presentation</i> G. Hungerford <i>Curcuminoid - Serum Albumin Binding Studied Using Time-Resolved Fluorescence</i> Horiba UK</p>	
14:20	<p align="center">Bernard Sunley Lecture Theatre</p>	
14:20	<p align="center">Session Chair – Neil Hunt</p>	
14:20	<p align="center">Plenary - Peter Ogilby <i>Singlet Oxygen: Coaxing New Tricks Out of an Old Dog</i> Aarhus University, Denmark</p>	
15:10	<p align="center">Invited – Marie Louise Groot <i>Photoactive Yellow Protein – Converting Light into a Metastable Structural Change</i> VU University, The Netherlands</p>	
15:35	<p align="center">Selected - J. van Thor <i>Proton Transfer and Photoswitching in Fluorescent Proteins</i> Imperial College London, UK</p>	
15:55	<p align="center">Selected – B.C. Smith <i>An Astigmatism Free Spectrograph for Improved Imaging and Spectra of Biological Samples</i> Princeton Instruments, USA</p>	
16:15	<p align="center">Break JCR Bar Area</p>	
	<p>Session 1 BSLT Bernard Sunley Lecture Theatre Session Chair – Jonathan Hirst</p>	<p>Session 2 JCRLT JCR Lecture Theatre Session Chair – Jasper vanThor</p>
16:45	<p align="center">Invited – Suren A. Tatulian <i>Structural Mechanism for Fibrillogenesis of Alzheimer's Amyloid b Peptide and the Effect of Pyroglutamylation</i> University of Central Florida, USA</p>	<p align="center">Selected – A.D. Burnett <i>Terahertz Spectroscopy: A Novel Technique for Probing Long-Range Order and Dynamics?</i> University of Leeds, UK</p>

17:15	Selected - S. Passot <i>Towards The Measurement Of Membrane Fluidity At Subzero Temperatures For Improving Cell Cryopreservation</i> AgroParis Tech, France	Selected – A.A. Mankova <i>FTIR and THz Spectroscopy Of Chymotrypsin Upon Interaction With Crown Ether, Denaturation, and Inhibition</i> Lomonosov Moscow State University, Russia
17:35-17:55	Selected - C. Varotsis <i>The Structure Of Two Ferryl-Oxo Intermediates At The Same Oxidation Level In The Heme-Copper Binuclear Center Of Cytochrome C Oxidase: The Protein Effect</i> Cyprus University of Technology, Cyprus	Selected – S.T. Stripp <i>The [NiFe] Hydrogenase Accessory Chaperones HypC and HybG of E. coli are Iron- and Carbon Dioxide-Binding Proteins</i> Freie Universität Berlin, Germany
19:00	Dinner St Catherine's Dining Hall	
20:00	Poster Session Bernard Sunley Building	

Wednesday 28th August 2013

Bernard Sunley Lecture Theatre

	Session Chair – Peter Ogilby	
08:50	Plenary - Martin Zanni <i>Targeting The Mechanism Not The Structure: Amyloid Fiber Inhibitors Designed From 2D IR Kinetics Data</i> University of Wisconsin-Madison, USA (IOP distinguished lecture)	
09:30	Invited - Jonathan Hirst <i>Computing Ultrafast 2D Spectra Of Proteins</i> Nottingham University, UK	
10:00	Invited - Bonnie Wallace <i>Voltage-gated Sodium Channels: Complementary Insights into Structure and Function Using Crystallography and Synchrotron Radiation Circular Dichroism Spectroscopy</i> University of London, UK	
10:30	Break JCR Bar Area	
	Session 1 BSLT Bernard Sunley Lecture Theatre Session Chair – Susan Quinn	Session 2 JCRLT JCR Lecture Theatre Session Chair – Karin Hauser
11:00	Selected – N.T. Hunt <i>Bound Water Plays A Key Role In Molecular Ligand Binding and Function In The Catalase Enzyme</i> University of Strathclyde, UK	Selected - A. Jaworska <i>Studies On Endothelial Cells With The Use Of Surface – Enhanced Raman Spectroscopy and Fluorescence</i> Jagiellonian University, Poland
11:20	Selected - A. Huerta-Viga <i>How Does Guanidinium Denature Proteins?</i> University of Amsterdam, The Netherlands	Selected - M. Trapp <i>Bioref – Combining Neutron Reflectivity and FTIR For A Better Understanding Of Solid-Liquid-Interfaces</i> University of Heidelberg, Germany

11:40	<p>Selected - F. Šanda <i>Two-Dimensional Peak-Shapes Beyond Gaussian Limit : Meaning Of Central Line Slope For 2D-Vis Spectra</i> Charles University Prague, Czech Republic</p>	<p>Selected - A. Bonifacio <i>Label-Free SERS Of Blood Plasma and Serum Revisited: A Critical Evaluation Of Its Diagnostic Potential</i> University of Trieste, Italy</p>
12:00	<p>Invited - Elina Chikhirzhina <i>The Investigation of the Structure of Supramolecular Complexes between DNA and "Linker" Chromatin Proteins Using Spectroscopic Approaches</i> St. Petersburg State University, Russia</p>	<p>Invited - Adres Guererro-Martinez <i>Self-Assembly Of Plasmonic Nanoparticles Based On Molecular Concepts</i> Universidad Complutense, Spain</p>
12:20	<p>Selected - L. Smeller <i>High Pressure Tuning Of Secondary Structures Of Ordered and Disordered Proteins. An FTIR Approach</i> Semmelweis University, Hungary</p>	<p>Selected - S. Astilean <i>From Single-Molecule Detection To Cell Imaging and Cancer Therapy With Multifunctional Plasmonic Nanoparticles</i> Babes-Bolyai University, Romania</p>
12:40	<p>Selected – S.R. Domingos <i>Switchable Amplified Vibrational Circular Dichroism As A Local Probe Of Biomolecular Structure</i> University of Amsterdam, The Netherlands</p>	<p>Selected - M. Procházka <i>Regularly Spaced Metal Nanostructures For SERS: Self-Assembly and Nanosphere Lithography</i> Charles University Prague, Czech Republic</p>
13:00	<p>Lunch St Catherine's Dining Hall Teas & Coffees in Hall</p>	
	<p>Afternoon Free - tours, depart 13:45 prompt</p>	
18:30	<p>Poster Session ad hoc</p>	
19:00	<p>Dinner St Catherine's Dining Hall</p>	

Thursday 29th August 2013 - Morning

Bernard Sunley Lecture Theatre

	<p>Session Chair – Klaus Gerwert</p>	
08:50	<p>Plenary - Hugh Barr <i>Real-Time Disease Detection Using Spectroscopic Diagnosis</i> Cranfield University, UK</p>	
09:30	<p>Invited - Peter Caravan <i>Molecular Imaging Probes for the Diagnosis and Staging of Disease</i> Massachusetts General Hospital and Harvard Medical School, USA</p>	
10:00	<p>Invited – Joachim Heberle <i>Time-Resolved IR Spectroscopy Reveals Structural Changes of Channelrhodopsin-2 Relevant to Channel Gating</i> Freie Universität Berlin, Germany</p>	
10:30	<p>Break JCR Bar Area</p>	
	<p>Session 1 BSLT Bernard Sunley Lecture Theatre Session Chair – Matteo Levantino</p>	<p>Session 2 JCRLT JCR Lecture Theatre Session Chair – Peter Caravan</p>

11:00	<p>Selected - K. Kong <i>Raman Spectral Histopathology Of Tissue Blocks: Towards Unsupervised Evaluation Of Tumour Resection Margins</i> University of Nottingham, UK</p>	<p>Selected - M. Roman <i>ROA, FR-IR, and FT-Raman Analysis Of Cinchona Alkaloids In Natural and Modelled Environment</i> Jagiellonian University, Poland</p>
11:20	<p>Selected – D.M. Zezell <i>Optical Attenuation Coefficient and Clinical Morphometric Evaluation Of Squamous Cell Carcinoma After Photodynamic Therapy</i> Instituto de Pesquisas Energéticas e Nucleares (IPEN) – Comissão Nacional de Energia Nuclear (CNEN), Brazil</p>	<p>Selected – A. Vergara <i>Ruthenium-Based Anticancer Activity: A Raman-Assisted X-Ray Crystallography Approach</i> University of Naples Federico II, Italy</p>
11:40	<p>Selected - F. Bonnier <i>Raman Spectroscopic Imaging For The Analysis Of UV Induced Skin Damage</i> Dublin Institute of Technology, Ireland</p>	<p>Selected - J. Kozuch <i>Spectroelectrochemical Investigation of Membrane Proteins Incorporated into Tethered Bilayer Lipid Membranes using Surface-enhanced Infrared Absorption</i> Technische Universität Berlin, Germany</p>
12:00	<p>Invited - Leonardo Bernasconi <i>Ab Initio Modelling Of Electronic Excitations In Extended Systems</i> STFC Rutherford Appleton Laboratory, UK</p>	<p>Invited - Tony Watts <i>Resolving Nanoscale Details of Drugs and Ligands at their Binding Sites of Membrane-embedded, Functionally Competent Targets</i> University of Oxford, UK</p>
12:30 – 12:50	<p>Selected – S.S. Stavrov <i>Structure of A_0, A_1, and A_3 Conformational Substates of Carbonmonoxy Myoglobin</i> Tel Aviv University, Israel</p>	<p>Selected - V. Baumruk <i>Chiroptical Properties Of A Cyclic Antimicrobial Peptide Lasiocepsin and Its Analogs</i> Charles University Prague, Czech Republic</p>
13:00	<p>Lunch St Catherine's Dining Hall Teas & Coffees in JCR Area</p>	
14:20	<p>Bernard Sunley Lecture Theatre</p>	
14:20	<p>Session Chair – Vladimir Baumruk</p>	
14:20	<p>Plenary - Victor Muñoz <i>The Downhill Folding Scenario: Resolving Protein Folding Motions and Landscapes with Nanosecond, Single-Molecule, and Atomic Resolutions</i> Centro Nacional de Biotecnología, Spain</p>	
15:10	<p>Invited - Sumeet Mahajan <i>Assessing The Efficacy Of Drugs In Cells With CARS Imaging</i> University of Southampton, UK</p>	
15:40	<p>Invited – Jemma G. Kerns <i>Spatially Offset Raman Spectroscopy For The Non-Invasive In Vivo Collection Of Biochemical Information From Human Bone</i> University College London, UK</p>	

16:10	Break JCR Bar Area	
16:40	Selected - V. Larat <i>Quick Sorting Of Bio Samples: Screening and Imaging With Raman Micro-Spectroscopy</i> HORIBA Scientific, France	
17:00	Selected - G. Chandramohan <i>Isolation and Identification of a Novel Anti-Diabetic Compound Of 3-Hydroxymethyl Xylitol (3-HMX) from Casearia Esculenta (Roxb.) Root, on Key Carbohydrate Metabolic Enzymes, Lipid Peroxides and Antioxidants in Streptozotocin-Induced Diabetic Rats</i> King Saud University, Saudi Arabia	
17:20	5 minutes repositioning	
	Session 1 BSLT Bernard Sunley Lecture Theatre Session Chair – Tony Watts	Session 2 JCRLT JCR Lecture Theatre Session Chair – Elena Chikhirzhina
17:25	Selected - J. Raap <i>EPR- and NMR-Tools To Study Self-Assembled Peptide Channels</i> Leiden University, The Netherlands	Selected - M. Říhová <i>Ribosome and Viroid RNA Dynamics Revealed by Neutron Scattering</i> Charles University Prague, Czech Republic
17:45- 18:05	Selected - M. W. Jones <i>Using FLIM to Investigate the Subcellular Biodistribution of Metallo-drug Complexes in live Cells</i> University of Oxford, UK	Selected - S. Hofbauer <i>Spectroscopic Characterization of wild-type Chlorite Dismutase from Candidatus "Nitrospira defluvii" and Selected Variants</i> University of Natural Resources and Life Sciences, Austria
19:00	Banquet Reception JCR Lounge	
20:00	Conference Banquet St Catherine's Dining Hall	

Friday 30th August 2013

Bernard Sunley Lecture Theatre

	Session Chair – Dave Clarke	
08:50	Plenary - Erik Goormaghtigh <i>Cell Type Discrimination In Breast Cancer Histology by FTIR Imaging</i> Université Libre de Bruxelles, Belgium	
09:30	Invited - Hugh Byrne <i>Biomedical Applications Of Vibrational Spectroscopy Disease Diagnostics and Beyond</i> Dublin Institute of Technology, Ireland	
10:00	Selected – D.M. Zzell <i>Imaging of Nonlinear Microscopy of Burned Skin Treated by Ultra-High Intensity Laser Pulses</i> State University of Amazonas, Brazil	

10:20	<p>Selected - E.Y.M. Bonnist <i>In-Vivo Raman Spectroscopy Of The Scalp and Axilla Skin and Oral Mucosa: Insights Into Hard-To-Reach Places Around The Human Body</i> Unilever Discover, UK</p>
10:40	<p>Selected – S.W. Fogarty <i>“Large” Gold Nanoparticles As A Good Substrate For Near-Infrared Surface Enhanced Raman Spectroscopy (NIR SERS) For Bioanalysis</i></p>
11:00	<p>Break JCR Bar Area</p>
	<p>Session Chair – Tony Parker</p>
11:30	<p>Invited Katherine Lau <i>Combined Confocal 3D Raman and Atomic Force Microscopy Force Imaging To Probe The Biochemistry and Biomechanics Of Cells</i> Renishaw plc, UK ,</p>
12:00	<p>Selected – K.M. Scherer <i>Two-Photon Imaging and Activation Of E-Combretastatins In Live Cells – A Novel Form Of Anticancer Phototherapy</i> STFC Rutherford Appleton Laboratory, UK</p>
12:20	<p>Invited To Be Announced</p>
12:40	<p>Closing Remarks Conference Closes</p>
13:00	<p>Lunch St Catherine’s Dining Hall</p>
14:00	<p>Depart - Bon Voyage</p>