

# Sunday 10 June 2018

<b>12:00</b>	<b>Registration</b> Location: University of Strathclyde Technology & Innovation Centre Foyer
<b>13:00 - 16:30</b>	<b>Industry Sponsored Workshops</b>
<b>13:00 - 14:30</b>	<b>Perkin Elmer</b> Location: Meeting Room 3
<b>13:00 - 16:30</b>	<b>Agilent - Biomedical FTIR imaging thought leaders workshop</b> Location: Meeting Room 2
<b>15:00 - 16:30</b>	<b>WITec - 3D Confocal Raman Imaging: New perspectives and tools for biomedical research applications</b> Location: Meeting Room 3
<b>17:00 - Late</b>	<b>Informal Mixer Event</b> Location: Bar Home, 80 Albion Street, Glasgow, G1 1NY

# Monday 11 June 2018

<b>08:00</b>	<b>Registration</b> <b>Location: University of Strathclyde Technology &amp; Innovation Centre Foyer</b>
<b>09:00 - 09:10</b>	<b>SPEC Welcome</b> <b>Location: Auditoria B &amp; C</b>
	Dr Matthew J Baker, University of Strathclyde, United Kingdom
<b>09:10 - 09:20</b>	<b>Opening Remarks</b> <b>Location: Auditoria B &amp; C</b>
	Professor Sir Jim McDonald, University of Strathclyde, United Kingdom
<b>09:20 - 10:00</b>	<b>Keynote Session</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Matthew J Baker, University of Strathclyde, United Kingdom</b>
	Dr Gérard Thiéfin, CHU de Reims, France <i>Bridging the translational gap for medical applications of spectroscopy : a clinician's perspective</i>
<b>10:00 - 11:00</b>	<b>Session 1: Experimental protocols and sample preparation</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Colin Campbell, University of Edinburgh, United Kingdom</b>
10:00 - 10:20	Mr Michael Hermes, University of Exeter, United Kingdom <i>12 - Discrete Frequency IR imaging - does sampling geometry hamper classification?</i>
10:20 - 10:40	Associate Professor Beata Brozek-Pluska, Lodz University of Technology, Poland <i>41 - Histochemical analysis of human tissue samples -protocols discussion</i>
10:40 - 11:00	Professor Richard Dluhy, University of Alabama at Birmingham, United States <i>Characterization of storage-induced red blood cell hemolysis using Raman spectroscopy</i>
<b>11:00 - 11:30</b>	<b>Refreshment Break / Exhibition</b> <b>Location: Foyer</b>
<b>11:30 - 13:00</b>	<b>Session 2: Data analysis, calibration, pre-processing and sharing protocols</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Alex Henderson, University of Manchester, United Kingdom</b>
11:30 - 11:45	Mr David Perez Guaita, Monash University, Australia <i>18 - Assessment of discriminant models in infrared imaging using CORSCV</i>
11:45 - 12:00	Xinying Mu, Cireca, LLC, United States <i>53 - Detecting decision tree structures for multi-class classification using network communities</i>
12:00 - 12:15	Tobias Koalski, Ruhr-Universität Bochum, Germany <i>196 - Providing an integrated framework for IR imaging and analysis</i>
12:15 - 12:30	Professor Axel Mosig, Ruhr University Bochum, Germany <i>168 - Non-invasive cancer diagnosis by deep learning on Raman spectral images</i>
12:30 - 12:45	Mr Felix Lussier, University of Montreal, Canada <i>183 - Probing living neurons communication with vibrational spectroscopy</i>
12:45 - 13:00	Masahiro Ando, Waseda University, Japan <i>225 - Converting medical Raman big data into a clinical data sheet by multivariate curve resolution alternate least squares (MCR-ALS) analysis</i>

<b>13:00 - 13:45</b>	<b>Lunch / Exhibition</b> <b>Location: Foyer</b>
<b>13:45 - 15:15</b>	<b>Session 3: Cell cultures and 3D models for medical research applications</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Phil Heraud, Monash University, Australia</b>
13:45 - 14:05	Dr Lauren Jamieson, University of Strathclyde, United Kingdom <i>9 - Anti-cancer potential of lipid targeting drugs by ratiometric Raman imaging</i>
14:05 - 14:25	Dr Iwan Schie, Leibniz Institute of Photonic Technology, Germany <i>101 - High-throughput screening Raman spectroscopy (HTS-RS) for analysis of single cells</i>
14:25 - 14:45	Dr Agnieszka Kaczor, Jagiellonian University, Poland <i>114 - Lipid bodies as a hallmark of inflammation: Raman imaging study</i>
14:45 - 15:00	Professor Malgorzata Baranska, Jagiellonian University, Poland <i>187 - On a way to Raman-based personalized medicine: studies on NAFLD</i>
15:00 - 15:15	Dr Martha Vardaki, University of British Columbia, Canada <i>211 - Raman spectroscopic analysis of hESC-derived pancreatic cells for transplantation</i>
<b>15:15 - 15:45</b>	<b>Refreshment Break / Exhibition</b> <b>Location: Foyer</b>
<b>15:45 - 16:15</b>	<b>Flash Presentations</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Franck Bonnier, Université François-Rabelais de Tours, France</b>
<b>16:15 - 17:45</b>	<b>Poster Session 1</b> <b>Location: Foyer</b>
<b>18:00 - 19:00</b>	<b>SPEC 2018 Civic Welcome Reception</b> <b>Location: Glasgow City Chambers, George Square, Glasgow G2 1DU</b>

## Tuesday 12 June 2018

<b>08:00</b>	<b>Registration</b> Location: University of Strathclyde Technology & Innovation Centre Foyer
<b>09:00 - 09:40</b>	<b>Keynote Session</b> Location: Auditoria B & C Chair: Professor Nick Stone, University of Exeter, United Kingdom
	Professor Anita Mahadevan Jansen, Vanderbilt School of Engineering, United States <i>Predicting preterm birth with Raman spectroscopy in patients in vivo</i>
<b>09:40 - 11:00</b>	<b>Session 4: Translation</b> Location: Auditoria B & C Chair: Professor Karen Faulds, University of Strathclyde, United Kingdom
09:40 - 10:00	Dr Ben Gardner, University of Exeter, United Kingdom <i>14 - Translating transmission Raman spectroscopy (TRS): Lab bench to hospital theatre</i>
10:00 - 10:20	Julia Gala De Pablo, University of Leeds, United Kingdom <i>104 - Photosensitizing drugs accumulation Raman study in colorectal cancer cell lines</i>
10:20 - 10:40	Mr Radu Boitor, University of Nottingham, United Kingdom <i>61 - Automated spectroscopic detection of residual basal cell carcinoma during surgery</i>
10:40 - 11:00	Dr Ahmad Salman, SCE-Shamoon College of Engineering, Israel <i>74 - Determination of Escherichia coli susceptibility to antibiotics using infrared microscopy</i>
<b>11:00 - 11:30</b>	<b>Refreshment Break / Exhibition</b> Location: Foyer
<b>11:30 - 13:00</b>	<b>Session 5: Translation</b> Location: Auditoria B & C Chair: Cerys Jenkins, University of Strathclyde, United Kingdom
11:30 - 11:50	Professor Dr Klaus Gerwert, Ruhr University Bochum, Germany <i>Label-free tissue classification by QCL based IR-Imaging</i>
11:50 - 12:10	Dr Martha Vardaki, University of British Columbia, Canada <i>131 - Non-invasive quality assessment of transfusion blood using deep Raman spectroscopy</i>
12:10 - 12:25	Dr Christophe Krafft, Leibniz Institute of Photonic Technology, Germany <i>138 - Clinical translation of Raman spectroscopy for cell identification</i>
12:25 - 12:40	Dr Mustafa Kansiz, Agilent Technologies Australia Pty. Ltd, Australia <i>223 - Rapid measurement of trabecular bone area in marrow biopsies using FTIR-imaging through glass substrates</i>
12:40 - 12:55	Dr Maria Giovanna Lizio, University of Nottingham, United Kingdom <i>123 - Multimodal spectroscopic analysis of margins during breast conserving surgery</i>
<b>13:00 - 14:00</b>	<b>Lunch / Exhibition</b> Location: Foyer

<b>14:00 - 15:00</b>	<b>Session 6: Translation</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Professor Malgorzata Baranska, Jagiellonian University, Poland</b>
14:00 - 14:15	Professor Max Diem, Cireca, Llc And Northeastern University, United States <i>13 - Spectral histopathology studies of breast and lung cancer</i>
14:15 - 14:30	Professor Kamilla Malek, Jagiellonian University, Poland <i>155 - FTIR-screening of biochemical changes associated with pulmonary breast cancer metastasis</i>
14:30 - 14:45	Mr Laurent James Livermore, University of Oxford, United Kingdom <i>191 - Rapid genetic classification of brain tumours using Raman spectroscopy</i>
14:45 - 15:00	Professor Bayden Wood, Monash University, Australia <i>186 - Applications of vibrational spectroscopy in malaria research</i>
<b>15:00 - 15:45</b>	<b>Flash Presentations</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Holly Butler, University of Strathclyde, United Kingdom</b>
<b>15:45 - 16:15</b>	<b>Refreshment Break / Exhibition</b> <b>Location: Foyer</b>
<b>16:15 - 17:00</b>	<b>Hot Topic Panel Discussion - Translation</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Professor Hugh Byrne, Dublin Institute of Technology, Ireland</b>
<b>17:00 - 19:00</b>	<b>Poster Session 2</b> <b>Location: Foyer</b>
<b>20:00 - late</b>	<b>Student Led Event</b> <b>Location: BAaD (Barras Art and Design), 54 Calton Entry, Glasgow, G40 2SB</b>

## Wednesday 13 June 2018

<b>08:00</b>	<b>Registration</b> <b>Location: University of Strathclyde Technology &amp; Innovation Centre Foyer</b>
<b>09:00 - 09:40</b>	<b>Keynote Session</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Professor Peter Gardner, University of Manchester, United Kingdom</b> Dr Phil Heraud, Monash University, Australia <i>Translation of disruptive optical diagnostics: the direct entrepreneurial approach</i>
<b>09:40 - 11:00</b>	<b>Session 7: Translation</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Professor Josep Sule-suso, Keele University, United Kingdom</b>
09:40 - 10:00	Professor Dr Jurgen Popp, Jena University, Germany <i>Multicontrast spectroscopy for intraoperative tissue diagnostics</i>
10:00 - 10:20	Dr Babar Vaqas, Imperial College London, United Kingdom <i>221 - Intraoperative Raman spectroscopy identifies key mutations in brain tumours</i>
10:20 - 10:40	Dr Dov Malonek, Ruppin Academic Center, Israel <i>195 - In-vitro tumor classification during surgical procedure using Mid-IR spectroscopy</i>
10:40 - 11:00	Professor Luis Felipe Carvalho, Universidade De Taubaté, Brazil <i>112 - Revisiting in vivo Raman spectroscopic characteristics of oral sub-sites</i>
<b>11:00 - 11:30</b>	<b>Refreshment Break / Exhibition</b> <b>Location: Foyer</b>
<b>11:30 - 13:00</b>	<b>Session 8: Surgical guidance and <i>in vivo</i> applications</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Professor Sergei Kazarian, Imperial College London, United Kingdom</b>
11:30 - 11:50	Dr Alexander Dudgeon, University of Exeter, United Kingdom <i>33 - Raman needle probe for in vivo identification of breast cancer</i>
11:50 - 12:10	Miss Elisa Barroso, Erasmus Medical Center Rotterdam, Netherlands <i>94 - Assessment of bone resection margins during mandibulectomy by Raman spectroscopy</i>
12:10 - 12:30	Mr Frank Weesie, Erasmus Medical Center Rotterdam, Netherlands <i>109 - Implementation of autofluorescence raman microspectroscopy in mohs micrographic surgery</i>
12:30 - 12:45	Mr François Daoust, Polytechnique Montréal, Canada <i>182 - Wide field Raman imaging system to guide brain cancer resection</i>
12:45 - 13:00	Dr Viacheslav Artyushenko, Art Photonics GmbH, Germany <i>220 - Fiber spectroscopy methods to select in multimodal medical diagnostics</i>
<b>13:00 - 14:00</b>	<b>Lunch / Exhibition</b> <b>Location: Foyer</b>
<b>13:10 - 17:00</b>	<b>Conference Tours</b>
13:10	Glengoyne Distillery
14:00	Glasgow Music City Tour
14:00	Mackintosh at the Glasgow School of Art Walking Tour
14:00	WEST Brewery
14:00	Glasgow Necropolis Tour

## Thursday 14 June 2018

<b>08:00</b>	<b>Registration</b> Location: University of Strathclyde Technology & Innovation Centre Foyer
<b>09:00 - 09:40</b>	<b>Keynote Session</b> Location: Auditoria B & C Chair: Dr Matthew J Baker, University of Strathclyde, United Kingdom
	Dr Alison Hobro, Osaka University, Japan <i>Raman spectroscopy and immunology: Imaging the host response to infection</i>
<b>09:40 - 11:00</b>	<b>Session 9: Diagnostic with body fluids and cytological samples</b> Location: Auditoria B & C Chair: Professor Roy Goodacre, University of Manchester, United Kingdom
09:40 - 10:00	Professor Tatsuyuki Yamamoto, Shimane University, Japan <i>4 - Objective discrimination of cancer and normal cells by Raman microspectroscopy</i>
10:00 - 10:15	Associate Professor Franck Bonnier, Université François-Rabelais de Tours, France <i>20 - ATR-FTIR quantitative analysis for human serum based serodiagnosis</i>
10:15 - 10:30	Dr Peter Lasch, RKI, Germany <i>93 - Vibrational micro- and nanospectroscopy of burkholderia contaminans biofilms</i>
10:30 - 10:45	Dr Rhys Jenkins, Swansea University, United Kingdom <i>207 - Raman spectroscopy as a primary care diagnostic for colorectal cancer</i>
10:45 - 11:00	Dr Kamila Kochan, Monash University, Australia <i>75 - Phenotypic changes of Staphylococcus aureus resulting from antimicrobial resistance</i>
<b>11:00 - 11:30</b>	<b>Refreshment Break / Exhibition</b> Location: Foyer
<b>11:30 - 13:00</b>	<b>Session 10: Disease studies with biopsies, body fluids and cytological samples</b> Location: Auditoria B & C Chair: Professor Ganesh Sockalingum, Université De Reims, France
11:30 - 11:45	Professor Fiona Lyng, Dublin Institute of Technology, Ireland <i>62 - Raman spectroscopy for identification of high risk cervical cytology cases</i>
11:45 - 12:00	Mrs Pascaline Bouzy, University of Exeter, United Kingdom <i>52 - Assessment of breast cancer cell mineralisation using vibrational spectroscopy</i>
12:00 - 12:15	Professor Fiona Lyng, Dublin Institute of Technology, Ireland <i>136 - Raman spectroscopy for diagnosing dysplastic and malignant FFPP oral tissues</i>
12:15 - 12:30	Dr Francesca Palombo, University of Exeter, United Kingdom <i>63 - Amyloid plaque-associated astrogliosis detected by spectroscopic imaging and immunohistochemistry</i>
12:30 - 12:45	Ms Valentina Notarstefano, Università Politecnica Delle Marche, Italy <i>144 - Could unilateral endometriosis affect the contralateral ovary? A multidisciplinary study</i>
12:45 - 13:00	Dr Michael Martin, Lawrence Berkeley National Laboratory, United States <i>171 - Development of spectral phenotyping of iPSC-derived neurons and astrocytes</i>
<b>13:00 - 14:00</b>	<b>Lunch / Exhibition</b> Location: Foyer

<b>14:00 - 15:30</b>	<b>Session 11: Histopathologic diagnostics and prognostic applications</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Peter Lasch, Robert Koch-Institute, Germany</b>
14:00 - 14:15	Professor Kathleen Gough, University of Manitoba, Canada <i>205 - Far-field and near-field infrared study of white blood cell nuclei</i>
14:15 - 14:30	Dr Catherine Kendall, Ghnhsft, United Kingdom <i>67 - Multi-centre Raman spectroscopy for clinical pathology classification in Barrett's oesophagus</i>
14:30 - 14:45	Dr Zhiyu Liao, University of Nottingham, United Kingdom <i>89 - Tumour diagnosis by selective-sampling Raman micro-spectroscopy using wide-field fluorescence imaging</i>
14:45 - 15:00	Professor Chris Sammon, Sheffield Hallam University, United Kingdom <i>120 - Determining early matrix changes in IVD degeneration using FTIR imaging</i>
15:00 - 15:15	Mr Claus Kuepper, Ruhr University Bochum, Germany <i>184 - QCL-based IR-imaging of colorectal cancer tissue for clinical diagnostics</i>
15:15 - 15:30	Professor Peter Gardner, University of Manchester, United Kingdom <i>200 - Infrared spectral histopathology of H&amp;E stained tissue on glass slides</i>

<b>15:30 - 16:00</b>	<b>Refreshment Break / Exhibition</b> <b>Location: Foyer</b>
----------------------	---

<b>16:00 - 17:00</b>	<b>Session 12: Therapeutics: Treatment monitoring and drug discovery</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Professor Bayden Wood, Monash University, Australia</b>
16:00 - 16:15	Professor Maria Paula Marques, University of Coimbra, Portugal <i>15 - Drug impact on intracellular water probed by neutron spectroscopy</i>
16:15 - 16:30	Dr Katarzyna Marzec, Jagiellonian University, Poland <i>48 - Monitoring of hemoglobin NOx – induced adducts inside functional erythrocytes</i>
16:30 - 16:45	Dr William Tipping, The University of Edinburgh, United Kingdom <i>218 - Imaging intracellular drug distribution using stimulated Raman scattering microscopy</i>
16:45 - 17:00	Dr Gregory Giles, University of Otago, New Zealand <i>34 - Protective effects of glutathione peroxidase mimics on cellular stress</i>

<b>19:30 - late</b>	<b>SPEC 2018 Gala Dinner</b> <b>Location: Kelvingrove Art Gallery &amp; Museum, Argyle Street, Glasgow, G3 8AG</b>
---------------------	---



## Friday 15 June 2018

<b>09:00</b>	<b>Registration</b> <b>Location: University of Strathclyde Technology &amp; Innovation Centre Foyer</b>
--------------	--

<b>09:30 - 11:30</b>	<b>Session 13: Emerging technologies</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Professor Kathleen Gough, University of Manitoba, Canada</b>
09:30 - 09:45	Dr Kareem Elsayad, Vienna Biocentre, Austria <i>Brillouin Light Scattering Microspectroscopy: A promising tool for medical diagnostics</i>
09:45 - 10:00	Professor Angela Seddon, University of Nottingham, United Kingdom <i>176 - Shining a light on disease with mid-infrared fibreoptics</i>
10:00 - 10:15	Professor Curtis Marcott, University of Delaware, United States <i>66 - Submicron non-contact photothermal-IR spectroscopy and imaging of cells and tissue</i>
10:15 - 10:30	Mr Jeremie Mathurin, Laboratoire De Chimie Physique, France <i>79 - Drug nanocarriers characterisation using advanced infrared nanospectroscopy</i>
10:30 - 10:45	Professor Janina Kneipp, Humboldt-Universität zu Berlin, Germany <i>158 - Probing lipids in healthy and diseased state by SERS</i>
10:45 - 11:00	Professor Daniele Fioretto, Università di Perugia, Italy <i>124 - Brillouin-Raman micro-spectroscopy for cell and tissue biomechanics and molecular properties</i>

<b>11:00 - 11:30</b>	<b>Comfort Break</b>
----------------------	----------------------

<b>11:30 - 13:00</b>	<b>Session 14: Emerging technologies</b> <b>Location: Auditoria B &amp; C</b> <b>Chair: Dr Michael Martin, Lawrence Berkeley National Laboratory, United States</b>
11:30 - 11:45	Dr Stephanos Yerolatsitis, University of Bath, United Kingdom <i>85 - Endoscopic Raman sensing using hollow-core negative curvature fibres</i>
11:45 - 12:00	Professor Peter Weightman, University of Liverpool, United Kingdom <i>125 - An evaluation of the infrared aperture SNOM technique</i>
12:00 - 12:15	Professor Hidetoshi Sato, Kwansai Gakuin University, Japan <i>91 - Development of instrument and analysis technique for clinical Raman spectroscopy</i>
12:15 - 12:30	Professor Wolfgang Petrich, Roche Diabetes Care GmbH, Germany <i>137 - Advances in laser-based mid-infrared microspectroscopy</i>
12:30 - 12:45	Associate Professor Nicholas Smith, Osaka University, Japan <i>179 - Label-free Raman and quantitative phase imaging of immunological cell states</i>
12:45 - 13:00	Mr Kevin Yeh, University of Illinois, United States <i>180 - High-resolution infrared chemical imaging with a quantum cascade laser</i>

<b>13:00 - 13:40</b>	<b>Keynote Session</b>
	<b>Location: Auditoria B &amp; C</b>
	<b>Chair: Professor Duncan Graham, University of Strathclyde, United Kingdom</b>
	Professor David Klug, Imperial College London, United Kingdom <i>Progress in tissue imaging, protein structural analysis and the analysis of complex biofluids using EVV Two Dimensional Infrared Spectroscopy</i>
<b>13:40 - 13:50</b>	<b>SPEC 2018 Conference Close</b>
	<b>Location: Auditoria B &amp; C</b>
	Dr Matthew J Baker, University of Strathclyde, United Kingdom
<b>13:50 - 14:30</b>	<b>Lunch / Exhibition</b>
	<b>Location: Foyer</b>