

## Oral Programme

Sunday 7 <sup>th</sup> May 2017	
17:00-19:00	Registration   Room: Congress Centre Foyer
Monday 8 <sup>th</sup> May 2017	
08:00-09:00	Registration   Room: Congress Centre Foyer
<b>Session 1</b>	<b>Topic: Biomarkers and targets</b> Session Chair: Richard Luxton   Room: 1,000
09:00-09:10	<b>Welcome from Conference Chair</b>
09:10-09:50	<b>[K01] The digital twin: Toward Bioreactor Modeling using deep analytics</b> Paul Goodwin, <i>GE Healthcare, USA</i>
09:50-10:10	<b>[O01] Fluorescent peptide biosensor for probing CDK5 activity in neuronal cells - implication for glioblastoma diagnostics through detection of a predictive biomarker</b> M. Peyressatre, I. Soussi, M.C. Morris*, <i>Institut des Biomolécules Max Mousseron - UMR5247, France</i>
10:10-10:30	<b>[O02] CK17 as a novel biomarker for lung squamous cell carcinoma in vivo diagnosis using optical fiber biosensor</b> S. Chevineau* <sup>1</sup> , C. Ribaut <sup>1</sup> , P. Demetter <sup>2</sup> , M. Rimmelink <sup>2</sup> , R. Wattiez <sup>1</sup> , <sup>1</sup> <i>University of Mons, Belgium</i> , <sup>2</sup> <i>Université Libre de Bruxelles, Belgium</i>
10:30-10:50	<b>[O03] High-throughput epitope binning in early-stage screening allows rapid identification of potential therapeutic antibodies</b> A. van der Kooi* <sup>1</sup> , N. van der Velde <sup>1</sup> , Y.N. Abdiche <sup>2</sup> , R.B.M. Schasfoort <sup>1</sup> , <sup>1</sup> <i>IBIS Technologies, The Netherlands</i> , <sup>2</sup> <i>Wasatch Microfluidics, USA</i>
10:50-11:30	Refreshments and Poster Session 1   Room: Palavela
<b>Session 2</b>	<b>Topic: Biomarkers and targets (Continued)</b> Session Chair: Cy Tamanaha   Room: 1,000
11:30-11:50	<b>[O04] Electrochemical biosensors based on glycan analysis applicable in diagnostics of various diseases including cancer</b> J. Tkac*, T. Bertok, L. Klukova, A. Hushegyi, D. Pihikova, S. Belicky, F. Kveton, <i>Slovak Academy of Sciences, Slovakia</i>
11:50-12:10	<b>[O05] Nanomechanical label-free sensing of miRNAs as biomarkers for cancer and adverse drug effects</b> J. Duffy*, F. Padovani, M. Hegner, <i>Trinity College Dublin, Ireland</i>
12:10-12:30	<b>[O06] TBC</b>
12:30-12:50	<b>[O07] Approaches to a simple breath test for the early diagnosis of post-operative complications following colorectal cancer and segmental resection</b> O. Gould* <sup>1</sup> , N. Ratcliffe <sup>1</sup> , B. de Lacy Costello <sup>1</sup> , R. Persad <sup>2</sup> , N. Young <sup>3</sup> , N. Francis <sup>4</sup> , <sup>1</sup> <i>University of the West of England, UK</i> , <sup>2</sup> <i>Bristol Urological Institute, UK</i> , <sup>3</sup> <i>St James University Hospital, UK</i> , <sup>4</sup> <i>Yeovil District Hospital, UK</i>
12:50-14:20	Lunch and Poster Session 1   Room: Palavela
<b>Session 3</b>	<b>Topic: Biosensors surfaces</b> Session Chair: David Pritchard   Room: 1,000
14:20-15:00	<b>[K02] Biosensors and the ideal bioreceptor: Where does the recent research stand?</b> Jean-Louis Marty, <i>Université de Perpignan Via Domitia, France</i>
15:00-15:20	<b>[O08] DNA origami nanoscaled architectures for controlled and robust biosensor interfaces</b> D. Daems* <sup>1</sup> , W. Pfeifer <sup>2</sup> , B. Saccà <sup>2</sup> , J. Lammertyn <sup>1</sup> , <sup>1</sup> <i>University of Leuven, Belgium</i> , <sup>2</sup> <i>University of Duisburg-Essen, Germany</i>
15:20-15:40	<b>[O09] Novel studies of protein interaction to metal oxide nanoparticles by SPR</b> P. Canoa*, R. Simón-Vázquez, J. Popplewell, A. González-Fernández, <i>University of Vigo, Spain</i>
15:40-16:00	<b>[O10] Regenerative biotin surface for repeated immobilization of sensor molecules on biosensors</b> L. Traxler*, C. Knoglinger, K. Posledni, A. Zich, B. Ruttman, G. Friedl, P. Hinterdorfer, H.J. Gruber <i>Johannes Kepler University Linz, Austria</i>
16:00-16:40	Refreshments and Poster Session 1   Room: Palavela
<b>Session 4</b>	<b>Topic: Biosensors surfaces (Continued)</b> Session Chair: Sam Tothill   Room: 1,000

16:40-17:00	<b>[O11] Self-assembled gold nanoparticles for impedimetric and amperometric detection of a prostate cancer biomarker</b> P. Jolly <sup>1</sup> , P. Zhuravski <sup>1</sup> , J.L. Hammond <sup>1</sup> , A. Miodek <sup>1</sup> , S. Liebana <sup>2</sup> , T. Bertok <sup>3</sup> , J. Tkac <sup>3</sup> , P. Estrela* <sup>1</sup> , <sup>1</sup> University of Bath, UK, <sup>2</sup> Gwent Group Ltd, UK, <sup>3</sup> Slovak Academy of Sciences, Slovakia
17:00-17:20	<b>[O12] Surface analysis of biofunctionalization and assay protocols for silicon-based immunosensors</b> K. Gajos <sup>1</sup> , P. Petrou <sup>2</sup> , A. Budkowski* <sup>1</sup> , S. Kakabakos <sup>2</sup> , K. Awsiuik <sup>1</sup> , A. Bernasik <sup>3</sup> , K. Misiakos <sup>2</sup> , I. Raptis <sup>2</sup> <sup>1</sup> Jagiellonian University, Poland, <sup>2</sup> NCRS 'Demokritos', Greece, <sup>3</sup> AGH-Univ.Sci.Techn., Poland
17:20-17:40	<b>[O13] Impedance biosensor interface based on nanostructured porous silicon</b> C. Rodriguez* <sup>1</sup> , O. Ahumada <sup>2</sup> , M. Manso Silván <sup>1</sup> , V. Torres Costa <sup>1</sup> , V. Cebrián <sup>2</sup> , C. Gómez Abad <sup>2</sup> , <sup>1</sup> Universidad Autónoma de Madrid, Spain, <sup>2</sup> Mecwins, Spain
17:40-18:00	<b>[O14] Modelling Antibody – Gold Surface Interactions Driven by Ultrashort UV Laser Pulses</b> C. Altucci* <sup>1</sup> , A. Ambrosio <sup>2,3</sup> , A. Amoresano <sup>1</sup> , F. Corrado <sup>4</sup> , B. Della Ventura <sup>1</sup> , A. Fiero <sup>2</sup> , R. Funari <sup>1</sup> , F. Gesuele <sup>1</sup> , P. Maddalena <sup>1</sup> , M. Pica Ciamarra <sup>2,5</sup> , R. Velotta <sup>1</sup> et al, <sup>1</sup> Università Federico II di Napoli, Italy, <sup>2</sup> GNR-SPIN - Napoli, Italy, <sup>3</sup> Harvard University, USA, <sup>4</sup> Istituto Zooprofilattico Sperimentale del Mezzogiorno - Portici, Italy, <sup>5</sup> Nanyang Technological University, Singapore
18:00-19:00	Drinks Reception   Room: Palavela

### Tuesday 9<sup>th</sup> May 2017

08:00-09:00	Registration   Room: Congress Centre Foyer
<b>Session 5</b>	<b>Topic: Novel Biosensors and applications</b> Session Chair: Mark Tooley   Room: 1,000
09:00-09:40	<b>[K03] Smart Sensing for Surgery, in particular about the integration of technologies to produce viable sensing systems</b> Guang-Zhong Yang, Imperial College London, UK
09:40-10:00	<b>[O15] Biomarker sensing using plasmonic optical fiber: Towards <i>in vivo</i> diagnosis</b> M. Loyez* <sup>1</sup> , C. Ribaut <sup>1</sup> , J-C. Larrieu <sup>2</sup> , S. Chevineau <sup>1</sup> , P. Lambert <sup>2</sup> , M. Remmelink <sup>2</sup> , R. Wattiez <sup>1</sup> , C. Caucheteur <sup>1</sup> , <sup>1</sup> University of Mons, Belgium, <sup>2</sup> Université Libre de Bruxelles, Belgium
10:00-10:20	<b>[O16] Multi-target detections using a silicon nanowire ISFET array</b> X. Chen* <sup>1</sup> , Q. Hu <sup>1</sup> , S. Chen <sup>1</sup> , N. Netzer <sup>1</sup> , Z. Wang <sup>2</sup> , S. Zhang <sup>1</sup> , Z. Zhang <sup>1</sup> , <sup>1</sup> Uppsala University, Sweden, <sup>2</sup> The University of South Dakota, USA
10:20-10:40	<b>[O17] Fibre-based wearable sensor for lithium drug monitoring</b> M.N. Sweilam*, J.R. Varcoe, C. Crean, University of Surrey, UK
10:40-11:20	Refreshments and Poster Session 2   Room: Palavela
<b>Session 6</b>	<b>Topic: Novel Biosensors and applications (Continued)</b> Session Chair: Anthony Turner   Room: 1,000
11:20-11:40	<b>[O18] Lanthanide based fluorescent nano-biosensors for biomedical and environmental metabolites</b> P.A. Millner*, C.D. Jackson, A.V. Vakourov, L. MacKenzie, E. Alenezi, P. Vasudev, G. Jose, S. Saha University of Leeds, UK
11:40-12:00	<b>[O19] Dual mode mass-charge nanoplasmonic field-effect biosensor</b> N. Bhalla*, S. Sathish, A.Q. Shen, Okinawa Institute of Science and Technology (OIST), Japan
12:00-12:20	<b>[O20] A novel electrochemical biosensor for pcr free nucleic acids detection</b> S. Petralia <sup>1</sup> , E.L. Sciuto* <sup>2</sup> , M.L. Di Pietro <sup>3</sup> , M. Zimbone <sup>2</sup> , M.G. Grimaldi <sup>2</sup> , S. Conoci <sup>1</sup> , <sup>1</sup> STMicroelectronics, Italy, <sup>2</sup> University of Catania, Italy, <sup>3</sup> University of Messina, Italy
12:20-12:40	<b>[O21] Interferogram average over wavelength reflectance spectroscopy: A novel Interferometric technique for ultrasensitive Label-Free biosensing with porous silicon</b> S. Mariani*, L.M. Strambini, G. Barillaro, University of Pisa, Italy
12:40-14:10	Lunch and Poster Session 2   Room: Palavela <div style="text-align: right;"> <b>From Question to Answer with QSense-</b> Biolin Scientific [Progress Together] Room 1,000</div>
<b>Session 7</b>	<b>Topic: Integrated systems</b> Session Chair: Janice Kiely   Room: 1,000
14:10-14:50	<b>[K04] TBC</b> Mahesh Sooriyabandara, Toshiba Research Europe Limited, UK
14:50-15:10	<b>[O22] Wearable graphene textile sensors for biopotential monitoring</b> M.K. Yapici <sup>1,2</sup> , <sup>1</sup> Sabanci University, Turkey, <sup>2</sup> University of Washington, USA

15:10-15:30	<b>[O23] Flexible and wearable thin film acoustic wave lab-on-chip for sensing and microfluidics</b> R. Fu* <sup>1</sup> , J. Luo <sup>2</sup> , <sup>1</sup> Northumbria University, UK, <sup>2</sup> Bolton University, UK
15:30-15:50	<b>[O24] Developed MEMS blood flow sensor with a built-in pressure sensor and its application to exercise</b> R. Shiraishi*, H. Nogami, K. Uchida, M. Nomura, R. Sawada, Kyushu University, Japan
15:50-16:30	Refreshments and Poster Session 2   Room: Palavela
<b>Session 8</b>	<b>Topic: Integrated systems (Continued)</b> Session Chair: Pedro Estrela   Room: 1,000
16:30-16:50	<b>[O25] Lab-on-Chip system based on thin film technologies for real-time PCR</b> D. Caputo, G. Petrucci, F. Costantini*, N. Lovecchio, M. Nardecchia, A. Nascetti, G. de Cesare, Sapienza University of Rome, Italy
16:50-17:10	<b>[O26] Magnetic extraction and detection of bacteria in complex media: Innovative methods for the integration of immunosensors based on magnetic nanoparticles in lab-on-chip</b> C. Galland* <sup>1,2</sup> , O. Lefebvre <sup>1,2</sup> , T. Candela <sup>1</sup> , C. Janoir <sup>1</sup> , E. Martincic <sup>1,2</sup> , M. Taverna <sup>1,2</sup> , M. Ammar <sup>1</sup> , C. Smadja <sup>1,2</sup> <sup>1</sup> University Paris-Sud, France, <sup>2</sup> CNRS, France
17:10-17:30	<b>[O27] Biosensors with embedded 7-segment or dot-matrix displays powered by molecules</b> J. Macdonald <sup>1,2</sup> , <sup>1</sup> University of the Sunshine Coast, Australia, <sup>2</sup> Columbia University, USA
17:30-17:50	<b>[O28] Printed paper devices integrating aptamer and DNAzyme-based biorecognition, amplification and readout components for ultrasensitive detection</b> M. Liu, Y. Li, J.D. Brennan*, McMaster University, Canada
19:00–22:00	Conference Dinner – Ticketed Event

Wednesday 10 <sup>th</sup> May 2017	
08:00-09:00	Registration   Room: Congress Centre Foyer
<b>Session 9</b>	<b>Topic: Near market systems</b> Session Chair: Sabrina Conoci   Room: 1,000
09:00-09:40	<b>[K05] Advancing Basic Research</b> Cy Tamanaha, US Naval Research Laboratory, USA
09:40-10:00	<b>[O29] OLED/OPD transducer for point-of-use diagnostic tests</b> M. Roberts, Cambridge Display Technology Ltd., UK
10:00-10:20	<b>[O30] Single-molecule electroanalysis and printed electronic systems</b> A.P.F. Turner, Linköping University, Sweden
10:20-10:40	<b>[O31] TBC</b>
10:40-11:00	<b>[O32] Biofunctionalization as Key Step in Biosensor Applications - From R&amp;D to Highthroughput Manufacturing</b> W. Weigel*, A.S. Munoz, H. Eickhoff, SCIENION AG, Germany
11:00-11:40	Refreshments   Room: Palavela
<b>Session 10</b>	<b>Topic: Commercial opportunities</b> Session Chair: Tim Cox   Room: 1,000
11:40-12:00	<b>[O33] Ultrasensitive plasmonic devices for early cancer diagnosis: Socio-economic impact, market overview and benchmarking analysis</b> E. Turco* <sup>1</sup> , G. Spoto <sup>2</sup> , P. Giacomini <sup>3</sup> , P. Greco <sup>4</sup> , M. Käsäkoski <sup>5</sup> , E. Lindhout <sup>6</sup> , E. Maillart <sup>7</sup> <sup>1</sup> AMIRES s.r.o., Czech Republic, <sup>2</sup> Consorzio Interuniversitario Istituto Nazionale Biostrutture e Biosistemi, I.N.B.B., Italy, <sup>3</sup> Regina Elena National Cancer Institute, Italy, <sup>4</sup> Scriba Nanotecnologie srl, Italy, <sup>5</sup> GINOLIS Oy, Finland, <sup>6</sup> Future Diagnostics Solutions BV, The Netherlands, <sup>7</sup> Horiba Jobin Yvon S.A.S., France
12:00-12:20	<b>[O34] A new paradigm in sweat based wearable diagnostics biosensors using Room Temperature Ionic Liquids (RTILs)</b> R. Munje <sup>1</sup> , S. Muthukumar <sup>2</sup> , B. Jagannath <sup>1</sup> , S. Prasad* <sup>1</sup> , <sup>1</sup> University of Texas, Dallas, USA, <sup>2</sup> University of Texas, USA
12:20-12:40	<b>[O35] Clinical studies involving minimally invasive continuous glucose monitoring microneedle arrays in human subjects</b> S. Sharma*, A. El-Laboudi, M. Reddy, N. Oliver, D. Johnston, A.E.G. Cass, Imperial College London, UK
12:40-13:00	Award Presentations and Conference Closes