

XXIX Transfrontier Meeting on Sensors and Biosensors (TMSB 2025)		
Scientific and Social Programme		
Thursday 18 <sup>th</sup> September		
13:00 – 13:50	Registration and Poster Installation	
13:50 – 14:00	TMSB2025: Welcome (Opening Session)	
14:00 – 15:30	<b>Oral Presentations: First Session</b> Advanced Electrochemical Biosensing Platforms Chairman: <b>Dr. Ioanis Katakis</b>	
14:00 – 14:30	<b>Dr. María Isabel Pividori (UAB / BioEclision)</b> Bridging biosensing technologies from lab to life	KN 01
14:30 – 14:45	<b>Alessandra Cutillo Foraster (UB)</b> <i>Integration of electrochemical and optical sensing: Spectroelectrochemical detection of iron</i>	OC 01
14:45 – 15:00	<b>Marc Clua Estivill (URV)</b> <i>Compact and highly sensitive potentiometric biosensors using a solid-state, vertically stacked electrochemical cell</i>	OC 02
15:00 – 15:15	<b>Alicia Murcia Maya (URV)</b> <i>Paper-Based Semi-Open Electrochemical Cells: A Scalable Platform for Non-Invasive Lactate Biosensing</i>	OC 03
15:15 – 15:30	<b>Daniela Peña Gómez (IMB-CNM)</b> <i>Intelligent Analytical Microtechnology for Aquatic Process Monitoring and Control</i>	OC 04
15:30 – 16:15	<b>Coffee break</b> <b>Poster Session (PC 01 – PC 22)</b>	
16:15 – 17:30	<b>Oral Presentations: Second Session</b> Toxin and Contaminant Detection Chairman: <b>Dr. Lluís Masip</b>	
16:15 – 16:30	<b>Chiara Incani (IRTA)</b> <i>A Novel Immuno-Capture Strategy for the Isolation of Ciguatera-like Compounds from Complex Matrices</i>	OC 05
16:30 – 16:45	<b>Youssef Ali (Anses)</b> <i>Development and validation of innovative colorimetric sensor for the detection of chlorates disinfectants in dairy industries</i>	OC 06
16:45 – 17:00	<b>Georges Istamboulie (UPVD)</b> <i>Iron-NODAGA-labelled Immunosensor for the Detection of Enrofloxacin in a Competitive Assay</i>	OC 07
17:00 – 17:15	<b>Ulises Guillermo Díaz-Avello (URV)</b> <i>Rapid detection of Pacific ciguateras in fish with a lateral flow assay</i>	OC 08
17:15 – 17:30	<b>Jaume Reverté (IRTA)</b> <i>A Multiplexed Immunosensor for Seafood Toxin Monitoring: Saxitoxin and Tetrodotoxin</i>	OC 09
18:30 – 20:30	<b>Social activity</b> <b>Tarragona Urban Hunt Challenge</b> Meeting point at Portal del Roser, Tarragona (Scan the QR code for on-screen map instructions)	 SCAN ME
21:00	<b>Dinner</b> <b>Osteria di Mare</b> Marina Tarraco, Moll Lleida, s/n, bloc 1, local 1, Tarragona (Scan the QR code for on-screen map instructions)	 SCAN ME

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Friday 19 <sup>th</sup> September		
09:30-10:30	<b>Oral Presentations: Third Session</b> Molecular and Genetic Biosensing Chairman: <b>Alex Fragoso</b>	
09:30 – 10:00	<b>Dr. Francisco Javier Andrade (URV / EOX Sense)</b> Igniting Innovation: Looking beyond the research paper to unleash the entrepreneurial spirit of science	KN 02
10:00 – 10:15	<b>Anaixis Del Valle (UAB)</b> <i>Exosome-Assisted Electrochemical Genosensing for IFN<math>\gamma</math> mRNA Detection in Immune Monitoring</i>	OC 10
10:15 – 10:30	<b>Monica Choudhary (URV)</b> <i>A Novel Carbon Nano-onion-based Electrochemical System for dsDNA Detection Using a DNA-Binding Protein conjugate</i>	OC 11
10:30 – 10:45	<b>Maria Cambra-Pellejà (Graphenicalab)</b> <i>Epitope Mapping and DNA Scaffold Biosensors for Infectious Disease Diagnosis</i>	OC 12
10:45 – 11:00	<b>Mohammad Danish Alhindi (Laas - CNRS)</b> <i>Enhanced Graphene Biosensors via Optimized Tripodal Functionalization for Improved Stability and Sensitivity</i>	OC 13
11:00 – 11:45	<b>Coffee break</b> <b>Poster Session (PC 01 – PC 22)</b>	
11:45 – 12:30	<b>Oral Presentations: Fourth Session</b> Clinical and Neurochemical Applications Chairman: <b>Claudio Parolo</b>	
11:45 – 12:00	<b>Bogdan Bucur (INCDSB)</b> <i>Bienzymatic biosensors for electrochemical screening of neurotoxic compounds based on acetylcholinesterase and butyrylcholinesterase</i>	OC 14
12:00 – 12:15	<b>Julia Pedreira-Rincón (IS Global)</b> <i>pLDH as a Prognostic Biomarker in Imported Malaria: Implementing Smartphone Video Analysis for Rapid Clinical Decision-Making</i>	OC 15
12:15 – 12:30	<b>Giovanni Vettori (URV)</b> <i>Time-Based Modulation Approach for Lactate Detection at High Concentration</i>	OC 16
12:30 – 13:00	<b>TMSB2025: Closing Session and Poster awards</b>	
13:00 – 15:00	<b>Lunch</b> <b>L'Ancora del Serrallo</b> C/ Trafalgar 21, Tarragona (Scan the QR code for on-screen map instructions)	



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Poster session	
<b>Block 1</b> Advanced Electrochemical Biosensing Platforms <i>Posters focused on novel electrochemical devices, platforms, and sensor integration.</i>	
<b>Nuan Zhang (CNM)</b> Cobalt-Crosslinked Xerogel-Derived Nanomaterials for Electrochemical Detection of Arsenic (III) in Water	PS 01
<b>Juan Carlos Porras Marichal (Bioeclosion)</b> Portable biosensing device for detecting coliforms in drinking water	PS 02
<b>Melania Mesas (Bioeclosion)</b> Handheld Electrochemical Biosensing Device for Mycobacterium Detection Combining Filtration and Immunomagnetic Separation	PS 03
<b>Jing Huang (UB)</b> Electroanalytical Enhancement of Screen-Printed Carbon Electrodes through Nanostructuration and Surface Modification Strategies	PS 04
<b>Georges Istamboulie (UPVD)</b> Development of a new 3D-printed electrochemical platform for biosensor applications	PS 05
<b>Brice Sorli (UM)</b> Grafted Alumina-Based Immunosensor for Selective Protein Detection: An Electrical Performance Comparison	PS 06
<b>Block 2</b> Toxin and Contaminant Detection <i>Posters addressing environmental or food safety contaminants and toxins.</i>	
<b>Ulises Guillermo Díaz-Avello (URV)</b> A sensitive and fast tetrodotoxin lateral flow biosensor by antibody-aptamer sandwich assay	PS 07
<b>Jaume Reverté (IRTA)</b> A Single-Cell Biosensing Platform for Tetrodotoxin Detection in Pufferfish and the Toxicological Characterisation of its Analogues	PS 08
<b>Chiara Incani (IRTA)</b> A Sensitive Cell-Based Approach for Cytotoxicity Assessment of Palytoxins and Ovatoxins	PS 09
<b>Eva Arasa Puig (UAB)</b> Evaluation of different techniques for the determination of nitrate in different soil fractions	PS 10
<b>Antonio Calvo López (UAB)</b> Automated colorimetric microanalyzer for nickel monitoring in surface water	PS 11
<b>Block 3</b> Molecular and Genetic Biosensing <i>Posters related to nucleic acid detection, exosomes, and molecular diagnostics.</i>	
<b>Rosanna Rossi (UAB)</b> Exosome purification strategies for biosensing and diagnostic applications: a critical assessment of current isolation techniques	PS 12
<b>Arnau Pallarès-Rusiñol (Bioeclosion)</b> Portable PCR-Based Genosensing for Point-of-Care Detection of Neonatal Streptococcus agalactiae Infections	PS 13
<b>Elisenda Santaló Ferrer (URV)</b> Computational identification of candidate epitopes for the fast detection of clinically-relevant antibodies	PS 14
<b>Maryam Shafie Zadeh (URV)</b> Development of electrochemical DNA scaffold sensors for monitoring clinically- relevant antibodies in international travelers	PS 15

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Poster session	
<b>Block 4</b> Clinical and Neurochemical Applications <i>Posters with clinical relevance or neurochemical sensing.</i>	
<b>Afraa Razouk (URV)</b> <i>Multiplexed High-Risk HPV Test for Cancer Early Detection: A Novel Diagnostic Approach</i>	<b>PS 16</b>
<b>Maria Eduarda Marra Mesti (ICIQ)</b> <i>Polymer-redox hybrid material-based electrodes as pH sensors for carbapenemase detection</i>	<b>PS 17</b>
<b>Maria Mar Puyol Bosch (UAB)</b> <i>Cyanines: biocides against gram-positive and gram-negative bacteria</i>	<b>PS 18</b>
<b>Laia Garrido (UAB)</b> <i>Application of autocalibration concept in selective ammonium measurements using Point-of-Need devices for monitoring hereditary metabolic disorders</i>	<b>PS 19</b>
<b>Block 5</b> Emerging Analytical Techniques <i>Posters with novel or cross-cutting analytical approaches</i>	
<b>José Manuel Díaz-Cruz (UB)</b> <i>Dual sensing: a univariate alternative to chemometrics for the resolution of optical signals</i>	<b>PS 20</b>
<b>José Manuel Díaz-Cruz (UB)</b> <i>Pulsed amperometric detection: extending the applicability of HPLC to substances with two-step redox processes</i>	<b>PS 21</b>
<b>Duygu Beduk (ICN2)</b> <i>Hydrogel-Integrated Lateral Flow Assays for Signal Enhancement</i>	<b>PS 22</b>