



PRELIMINARY SCIENTIFIC PROGRAM

Thursday October 3rd, 2024	
08h15-09h00	Registration
09h00-09h15	Opening
Chair: C. M.A. Brett	
09h15-10h00	PL1: J. Bobacka
10h00-10h30	KN1: A. Errachid
10h30-11h00	Coffee Break and Poster Session
Chair: E. Iwuoha	
11h00-11h30	KN2: V. Bansal
11h30-12h00	KN3: E. Dempsey
12h00-12h30	OC1-OC2
12h30-14h00	Lunch
Chair: G. Palleschi	
14h00-14h45	PL2: A. Merkoçi
14h45-15h15	KN4: E. Iwuoha
15h15-16h00	OC3-OC5
16h00-16h20	Poster Communication (PO1-PO10)
16h20-16h45	Coffee Break and Poster Session
Chair: D. Moscone	
16h45-18h45	OC6-OC13

Friday October 4th, 2024	
Chair: A. Errachid	
08H30-09H15	PL3: K. Haupt
09H15-09H45	KN5: C. Mao
09H45-10H15	OC14-OC15
10h15-10h35	Poster Communication (PO11-PO20)
10h35-11h00	Coffee Break and Poster Session
Chair: J. Bobacka	
11h00-13h00	OC16-OC23
13h00-14h15	Lunch
Chair: G. Palleschi/ C. M.A. Brett	
14h15-14h45	KN6: K. Sode
14h45-15h15	KN7: P. Chen
15h15-15h45	KN8: H. Duan
15h45-16h15	OC24-OC25
16h15-16h45	Coffee Break and Poster Session
Chair: E. Dempsey	
16h45-17h45	OC26-OC29
17h45-18h15	Meeting with Editors
19H30-23H30	
GALA DINNER	

Saturday October 5th, 2024	
Chair: S. Cosnier	
08h30-09h00	KN9: F. Arduini
09h00-10h30	OC30-OC35
10h30-11h00	Coffee Break and Poster Session
Chair: A.M. Oliveira-Brett	
11h00-12h15	OC36-OC40
12h15-12h30	Closing (Amine, Brett, and Palleschi)
12h30-14h00	Lunch
14h00-19h00	
EXCURSION	
PL: Plenary conference (45min) KN: Key-note (30min) OC: Oral Communication (15min) PO: Poster Communication (2min)	

Plenary Conferences

PL1: J. Bobacka

WEARABLE CHEMICAL SENSORS AND BI-
OSENSORS FOR NON-INVASIVE ON-BODY
MONITORING

PL2: Arben Merkoçi

ADVANCING SUSTAINABLE NANOBIOSEN-
SORS FOR DIAGNOSTIC APPLICATIONS: IN-
NOVATIONS AND IMPLICATIONS

PL3: Karsten Haupt

MOLECULARLY IMPRINTED POLYMER NANO-
GELS: SYNTHETIC PEPTIDE ANTIBODIES FOR
BIOMEDICAL DIAGNOSTICS AND THERAPY

Key-note Lectures

KN1: A. Errachid

A 3D-PRINTED AUTOMATED SAMPLE STOR-
AGE UNIT FOR SPORADIC SAMPLING IN IN-
ACCESSIBLE AQUATIC ENVIRONMENT

KN2: Vipul Bansal

NANOZYMES FOR NEXT-GENERATION DIAG-
NOSTIC AND THERAPEUTIC APPLICATIONS

KN3: Eithne Dempsey

SOLUTIONS AND STRATEGIES FOR SMALL
MOLECULE SENSING AND ENVIRONMENTAL
MONITORING

KN4: E. Iwuoha

KESTERITE-FUNCTIONALISED ELECTRO-
CHEMICAL APTASENSORS FOR DISEASE BIO-
MARKERS TOWARD
SUSTAINABLE DIAGNOSTIC SENSING

KN5: Chuanbin Mao

PHAGE-BASED ULTRASENSITIVE DETECTION
OF BIOMARKERS

KN6: Koji Sode

CHALLENGES AND OPPORTUNITIES TO
REALIZE BIOSENSORS FOR IN VIVO CON-
TINUOUS MONITORING OF PEPTIDES AND
PROTEINS

KN7: Peng Chen

TRANSDERMAL DIAGNOSTICS BASED ON
MICRONEEDLE PATCHES

KN8: Hongwei Duan

TAILORED FUNCTIONAL NANOSTRUCTURES
FOR DIAGNOSTIC APPLICATIONS

KN9: Fabiana Arduini

ELECTROCHEMICAL PAPER-BASED ELECTRO-
CHEMICAL (BIO)SENSORS FOR THE NEXT
GENERATION OF ANALYTICAL TOOLS

Oral Communications

OC 1 : Flavio Della Pelle

LASER PLOTTER-BASED STRATEGIES FOR BI-
OSENSORS AND PAPER-BASED ELECTROANA-
LYTICAL DEVICE DEVELOPMENT

OC 2 : Annalisa Scroccarello

METAL NANOPARTICLES LASER-WRITING
ON CELLULOSIC SUBSTRATES FOR COLORI-
METRIC PAPER-BASED ANALYTICAL DEVICE
DEVELOPMENT

OC 3 : Dounia Elfadil

LASER-PLOTTER MANUFACTURED COLORI-
METRIC FOUR-LEAF CLOVER-LIKE MIP/PAD
FOR MALEIC HYDRAZIDE DETECTION

OC 4 : Johana Strmiskova

ELECTROCHEMICAL BIOASSAY FOR DETEC-
TION OF HUMAN PAPILLOMAVIRUS ONCO-
GENIC ACTIVITY

OC 5 : Ludmila Moranova

BIOELECTROCHEMICAL DETECTION OF
CANCER BIOMARKERS

OC 6: Selma Bloom Belfakir

NANOBODY-BASED DIAGNOSTIC TOOLS FOR
TOXIN DETECTION

OC 7: Bogdan Bucur

NEUROTOXIC COMPOUNDS SCREENING
USING BIOSENSOR WITH CO-IMMOBILIZED
ACETYLCHOLINESTERASE AND BUTYRYL-
CHOLINESTERASE ON ELECTRODES MODI-
FIED WITH CUNPS AND STABILIZED PRUS-
SIAN BLUE

OC 8: Valeria Nocerino

A HYDROGEL NANOCOMPOSITE IMMU-
NOSENSOR FOR THE ELECTROCHEMICAL
DETECTION OF HEMOGLOBIN

OC 9: Giulia Fichera / Paola Cicatiello

VERSATILE CHIMERIC PROTEINS FOR IMMU-
NO-BIOSENSORS DEVELOPMENT

OC 10: Tina D'Aponte

HIGHLY SENSITIVE IMPEDIMETRIC BIOSEN-
SOR FOR ENVIRONMENTAL DNA DETECTION

OC 11: Erica Cavaliere

RAPID COLORIMETRIC BIOSENSOR FOR EN-
VIRONMENTAL DNA DETECTION

OC 12: Riccarda Antiochia

AN ECOFRIENDLY IRON MOF-BASED IMMU-
NOSENSOR FOR SENSITIVE DETECTION OF
VASCULAR ENDOTHELIUM GROWTH FAC-
TOR IN SERUM OF CANCER PATIENTS

OC 13: Damira Kanayeva

CARCINOEMBRYONIC ANTIGEN DETECTION USING AN ELECTROCHEMICAL IMPEDANCE SPECTROSCOPY-BASED APTASENSOR

OC 14: Abdelhafid Karrat

BIOINSPIRED SYNERGY STRATEGY BASED ON THE INTEGRATION OF NANOZYME INTO A MOLECULARLY IMPRINTED POLYMER FOR IMPROVED ENZYME CATALYTIC MIMICRY AND SELECTIVE BIOSENSING

OC 15: Ouarda El Hani

INNOVATIVE MOLECULARLY IMPRINTED MEMBRANES WITH EFFECTIVE ELIMINATION OF NON-SPECIFIC ADSORPTION FOR ENHANCED SENSING APPLICATIONS

OC 16: Joseany M.S. Almeida

AN ELECTROCHEMICAL ENZYME BIOSENSOR FOR HYDROGEN PEROXIDE BASED ON POLY(SAFRANINE T)-TERNARY DEEP EUTECTIC SOLVENT AND CARBON NANOTUBE MODIFIED ELECTRODES

OC 17: Ana Maria Oliveira-Brett

A DNA-ELECTROCHEMICAL BIOSENSOR IN THE INVESTIGATION OF HAZARD COMPOUND-DNA INTERACTION MECHANISMS

OC 18: José María Palacios-Santander

DEVELOPMENT OF POTENTIOMETRIC SENSORS BASED ON SONOGEL-CARBON ELECTRODES FOR THE DETERMINATION OF Na^+ AND K^+ IN CLINICAL SAMPLES

OC 19: Juan José García-Guzmán

MULTIPOLYMER ELECTROCHEMICAL BIOSENSOR BASED ON SONOGEL-CARBON ELECTRODES FOR REAL-TIME LACTATE MONITORING: DECREASING COSTS IN TRANSDUCER AND FLOW CELL

OC 20: Laura Cubillana-Aguilera

SIMPLE AND COST-EFFECTIVE pH AND T SENSORS FROM TOP TO BOTTOM: NEW CHEMICAL PROBES BASED ON SONOGEL-CARBON TRANSDUCERS FOR PLASMA ANALYSES

OC 21: Aya M. Mostafa

DEVELOPMENT OF ECO-FRIENDLY MOLECULARLY IMPRINTED POLYMERS USING DEEP EUTECTIC SOLVENTS FOR SELECTIVE EXTRACTION AND HPLC ANALYSIS OF PEPSIN: TOWARDS A BIOSENSOR FOR GERD BIOMARKER DETECTION

OC 22: David Probst

DEVELOPMENT OF A CONTINUOUS LEVODOPA MONITOR FOR IN VIVO APPLICATION

OC 23: Škomantas Serapinas

DETECTION OF SINGLE NUCLEOTIDE POLYMORPHISMS IN HUMAN GENOMIC DNA USING ELECTROCHEMICAL BIOSENSOR BASED ON MELTING ANALYSIS

OC 24: Noureddine Raouafi

LASER-INDUCED GRAPHENE ELECTRODES FOR ENVIRONMENTAL APPLICATIONS

OC 25: Malgorzata Szczerska

REAL-TIME C-REACTIVE PROTEIN MONITORING VIA FIBER OPTIC SENSOR AND MACHINE LEARNING IN WASTEWATER

OC 26: Patryk Sokołowski

URINARY MASS SCREENING WITH OPTICAL METHOD SUPPORTED BY MACHINE LEARNING

OC 27: Christopher M.A. Brett

POLYMER FILM MODIFIED ELECTRODES PREPARED IN DEEP EUTECTIC SOLVENTS FOR SENSORS AND BIOSENSORS

OC 28: Shang Gao

CONTROLLABLE LONG-DISTANCE DROPLET TRANSPORT WITH A BIOMIMETIC 2D EWOD ELECTRODE

OC 29: Serge Cosnier

BIOELECTROCHEMICAL DEVICES BASED ON BUCKYPAPERS

OC 30: Krukiewicz katarzyna

NANOSTRUCTURIZED ELECTRODES FOR ULTRA-SENSITIVE DETECTION OF BIOMARKERS

OC 31: Vincenzo Mazzaracchio

A NANOPAPER-BASED SMART DUAL-BIOSENSOR FOR REAL-TIME OPTO-ELECTROCHEMICAL ON-FIELD DETECTION OF ORGANOPHOSPHORUS PESTICIDES

OC 32: Michal Kruczkowski

A TRIPLE-MODALITY SUPERVISED LEARNING APPROACH FOR THE CERVICAL CANCER IDENTIFICATION THROUGH INTEGRATION OF OPTICAL BIOSENSORS

OC 33: Sameh Kaziz

OPTIMIZING LAB-ON-A-CD BIOSENSOR FOR CANCER DIAGNOSIS BASED ON CRP MARKER DETECTION

OC 34: Chérif Dridi

A MACHINE LEARNING APPROACH FOR SUSTAINABLE, SMART AND PORTABLE SEROTONIN AND DOPAMINE SIMULTANEOUS ANALYSIS NANOPLATFORM DEVELOPMENT

OC 35: Christian Gosti

FUNCTIONALIZED ORTHOPAEDIC IMPLANT AS pH ELECTROCHEMICAL SENSING TOOL FOR SMART DIAGNOSIS OF HARDWARE INFECTION

OC 36 : Katarzyna Karpienko

RAMAN SPECTROSCOPY IN ANALYSIS OF PIGMENTS IN SKIN: APPLICATIONS IN TATTOO SAFETY

OC 37 : Luca Fiore

PAPER-BASED ELECTROCHEMICAL POINT-OF-CARE DEVICE FOR PRECISION MEDICINE IN BREAST CANCER

OC 38: Makhtar War

SAMPLES USING SILVER NANOPARTICLES-ENHANCED MOLECULARLY IMPRINTED POLYMER SENSOR AND ELECTRONIC TONGUE

OC 39: Marco Filice

CONTROLLED SURFACE BIOFUNCTIONALIZATION OF GRAPHENE FIELD-EFFECT TRANSISTOR BIOSENSORS AS A POWERFUL TOOL TO IMPROVE SENSITIVITY AND REPRODUCIBILITY IN LABEL-FREE SARS-COV-2 DETECTION

OC 40: Zhihui Dai

INTEGRATING MULTIPLE PROBES FOR SIMPLIFYING SIGNAL-ON PHOTOELECTROCHEMICAL BIOSENSING OF MICRORNA

Poster Communications

PO1: Khalid Moumanis

SOFT LASER ABLATION AND FTIR SPECTROSCOPY: TOWARDS RAPID IDENTIFICATION OF PATHOGENIC BACTERIA IN THE AGRI-FOOD INDUSTRIES

PO2: Hamza Moustakim

Exploring the Role of Modulable Biosensing Solutions in One Health Efforts for Managing Global Health Challenges in Medical Diagnostics and Environmental Monitoring

PO3: Nadia Zine

NOVEL STRATEGY FOR LEAD DETECTION IN WATER SAMPLES USING Si₃N₄ WAFER COATED WITH IONOPHORE-DOPED CHITOSAN NANOFIBERS.

PO4: Eithne Dempsey

PRINTABLE MEDIATED GLUCOSE BIOSENSOR DEVELOPMENT FOR WEARABLE DEVICES

PO5: Maria Cristina Messia

LIQUID CHROMATOGRAPHY COUPLED WITH AMPEROMETRIC DETECTION TO ASSESS THE NUTRITIONAL VALUE AND THERMAL DAMAGE OF GLUTEN-FREE PASTA

PO6: Achraf Berni

SCALABLE AND COST-EFFECTIVE IN SITU LASER SYNTHESIS OF NANOZYMES: PIONEERING THE FUTURE OF ENZYME-BASED ELECTROCHEMICAL SENSORS

PO7: Sara Colella

POLY(E-CAPROLACTONE) (PCL) NANOENCAPSULATED METRIBUZIN OPTICAL DETECTION USING THE GREEN PHOTOSYNTHETIC MICROALGA CHLAMYDOMONAS REINHARDTII

PO8: Silvia Piermarini / Giulia Volpe

Evaluation of the Applicability of an ELISA Kit for the Determination of WGA in Milled Fractions Produced During the Milling Process of Durum Wheat

PO9: Ludovica Gullo

REAGENT-FREE PHYTIC ACID ELECTROCHEMICAL DETECTION IN SPINACH USING A 3D-PRINTED AND PAPER-BASED BIOSENSOR

PO10: Malgorzata Szczerska

FIBER-OPTIC SENSORS FOR ANTIBODIES DETECTION

PO11: Ikram Chahri

AN INGENIOUS PLATFORM FOR NUCLEIC ACID IMMOBILIZATION BASED ON POLYSTYRENE 96-WELL MICROPLATE HYDROXYLATION.

PO12: Asma Blel

DEVELOPMENT OF A NEW NANOBIOPLATFORM BASED ON GREEN GOLD SONONANOPARTICLES FOR THE SIMULTANEOUS DETECTION OF DOPAMINE (DA) AND SEROTONIN (5-HT)

PO13: Lamia Guedri-Knani

PERFORMANCE EVALUATION OF AN OPTIMIZED HIGHLY SENSITIVE PCF-SPR BIOSENSOR FOR CANCER CELLS DETECTION

PO14: Rossana Pitocchi

PROTEIN-BASED FIBERS FOR FLUORESCENT BIOSENSORS

PO15: Luca Fiore

PAPER-BASED ELECTROCHEMICAL (BIO)SENSORS FOR A DISRUPTIVE ORIGAMI ORGANON-CHIP DEVICE: PHOENIX-OOC

PO16: Kawtar Saidi

MASS PRODUCTION OF MOLECULARLY IMPRINTED POLYMERS VIA COST-EFFECTIVE PHOTOPOLYMERIZATION SYNTHESIS AND COLORIMETRIC DETECTION VIA SMARTPHONE

PO17: Monika Kosowska

ADVANCING BIOMEDICAL SENSING: DIAMOND STRUCTURES FOR FIBER-OPTIC SENSORS

PO18: Rejda Fatima Ezzahra

RAPID PHOTOSYNTHESIS OF CELLULOSE NANOFIBRILS-BASED IMPRINTED MEMBRANE FOR SELECTIVE FILTRATION AND SENSITIVE COLORIMETRIC ANALYSIS OF ISONIAZID

PO19: Sara Palmieri

FAST SYNTHESIS OF MOLECULARLY IMPRINTED POLYMERS FOR SELECTIVE EXTRACTION OF PHYTOSTEROLS IN FOOD SAMPLES

PO20: Vincenza VEDI

MICROALGAE BIOTECHNOLOGY: APPLICATIONS OF THE GREEN PHOTOSYNTHETIC ALGA CHLAMYDOMONAS REINHARDTII FROM BIOSENSING TO BIOFARM AND BIOREMEDIATION