

# BIOSENSORS

Tenth International Workshop  
13 – 15 October 2022 / Dakhla, Morocco



## Program

The Tenth International Workshop  
on Biosensor

13 – 15 October 2022

La Crique Hotel Dakhla, Morocco

Workshop  
Dakhla  
2022  
Biosensors

# BIOSENSORS

Tenth International Workshop  
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13 – 15 October 2022  
08:30 - 18:00



La Crique Hotel Dakhla, Morocco

 [www.biocap.ma](http://www.biocap.ma)

Workshop  
Dakhla  
2022  
Biosensors



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FACULTÉ DES SCIENCES ET TECHNOLOGIES  
DE L'INDUSTRIE  
ET DE L'AGRICULTURE



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C.M.A. Brett (Portugal),

G. Palleschi (Italy)

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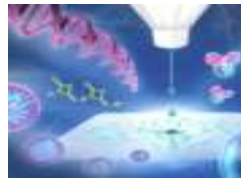
## TOPICS :

- ELECTROCHEMICAL BIOSENSORS
- OPTICAL BIOSENSORS
- NANOBIOSENSORS & NANOMATERIALS
- LABEL-FREE BIOSENSORS
- NUCLEIC ACID SENSORS AND APTASENSORS
- ENZYME-BASED BIOSENSORS
- IMMUNOSENSORS
- WEARABLE BIOSENSORS


- MOLECULARLY IMPRINTED POLYMERS BASED BIOSENSORS
- WHOLE CELL-BASED BIOSENSORS
- NATURAL & SYNTHETIC RECEPTORS
- PRINTED BIOSENSORS AND MICROFABRICATION
- MICROFLUIDICS
- COMMERCIAL BIOSENSORS

\*Professor Aziz Amine


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## SCIENTIFIC PROGRAM

<b>Thursday</b> <b>October 13<sup>th</sup>, 2022</b>	
08H45-09H15	Registration & Poster display
09H15-09H30	Opening
Chair. G. Palleschi	
09H30-10H15	PL 1 (Fabiana Arduini)
10H15-10H45	KN 1 (Christopher M A Brett)
10H45-11H15	Coffee Break and Poster Session
Chair. C.M.A. Brett	
11H15-11H45	KN 2 (Eithne Dempsey)
11H45-12H15	KN 3 (Aldo Roda)
12H15-12H45	OC1-OC2
12H45-14H15	Lunch
Chair. Aldo Roda	
14H15-15H00	PL 2 (Chenzhong Li)
15H00-15H30	KN 4 (Khalid Nabil Salama)
15H30-16H00	OC 3 -OC 4
16H00-16H30	Coffee Break and Poster Session
Chair. Dario Compagnone	
16H30-18H00	OC 5-OC10
18H30-23H00  <b>GALA DINNER</b>	

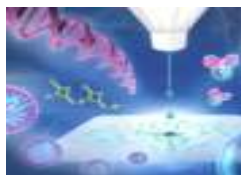
<b>Friday</b> <b>October 14<sup>th</sup>, 2022</b>	
Chair. Danila Moscone	
08H30-09H15	PL 3 (Luisa Torsi)
09H15-09H45	KN 5 (Mohamed Siaj)
09H45-10H15	KN 6 (Anastasios Economou)
10H15-10H40	Coffee Break and Poster Session
Chair. Abdelhamid Errachid	
10H40-12H40	OC 11-OC18
12H40-14H00	Lunch
Chair. Pankaj M. Vadgama	
14H00-14H45	PL 4 (Priscilla G L Baker)
14H45-15H15	KN 7 (Koji Sode)
15H15-15H45	KN 8 (Camelia Bala)
15H45-16H05	Coffee Break and Poster Session
Chair. Camelia Bala	
16H05-16H35	KN 9 (Abdelhamid Errachid)
16H35-16H50	OC19
16H50-17H05	OC20
17H05-17H20	OC21
17H20-17H35	OC22
17H35-18H00	Meeting with Editors

<b>Saturday</b> <b>October 15<sup>th</sup>, 2022</b>	
Chair. Fabiana Arduini	
08H30-09H00	KN10 (Flavio Della Pelle)
09H00-09H30	KN11 (Zeynep Altintas)
09H30-10H00	OC 23-OC24
10H00-10H10	Closing
10H10-10H30	Coffee
10H30-18H00 <b>EXCURSION</b>	
	



PL : Plenary conference (45 min)  
KN : Key-note lecture (30 min)  
OC : Oral communication (15 min)





## Plenary Conferences

### PL 1: PAPER-BASED ELECTROCHEMICAL (BIO)SENSORS AS SMART AND SUSTAINABLE DEVICES

Fabiana Arduini,  
University of Rome « Tor Vergata », Italy

### PL 2: BIOELECTRONICS FOR POINT OF CARE TESTINGS AND ELECTRICAL THERAPY

Chenzhong Li,  
Tulane University, New Orleans, USA

### PL 3: SINGLE-MOLECULE RELIABLE DETECTIONS WITH A LARGE-AREA ELECTRONIC INTERFACE

Luisa Torsi,  
University of Bari, Italy

### PL 4: ELECTROCHEMICAL SENSORS, PAST AND PRESENT – WHERE TO FROM HERE?

Priscilla G L Baker,  
University of the Western Cape, South Africa

## Keynote lectures

### KN 1: NANOSTRUCTURED MODIFIED ELECTRODES WITH NANOMATERIALS AND ELECTROACTIVE REDOX POLYMERS FOR SENSOR AND BIOSENSOR PLATFORMS

Christopher M.A. Brett,  
University of Coimbra, Portugal

### KN 2: SWEET SENSING – ELECTROANALYSIS OF SUGAR MOLECULES

Eithne Dempsey,  
Maynooth University, Maynooth, Ireland

### KN 3: EXOSOMES AND THEIR CARGO AS “TWO IN ONE” SENSITIVE AND PREDICTIVE LIQUID BIOPSY TOOLS FOR CANCER BIOMARKERS: NEW GENERATION OF LUMINESCENCE-BASED BIOSENSORS INTEGRATED WITH FFF ISOLATION FROM BIOLOGICAL FLUIDS

Aldo Roda,  
University of Bologna, Italy

### KN 4: ELECTROCHEMICAL SENSING AND BIOSENSING APPLICATIONS OF LASER-SCRIBED GRAPHENE ELECTRODES

Khaled Nabil Salama,  
King Abdullah University of Science and Technology, Saudi Arabia

### KN 5: ELECTROACTIVE MATERIALS BASED ELECTRODES FOR LABEL-FREE ELECTROCHEMICAL APTA- AND IMMUNO-SENSORS

Mohamed Sijaj,  
University of Quebec in Montreal, Canada

### KN 6: VOLTAMMETRIC BIOSENSING USING NANOMATERIAL-BASED LABELS

Anastasios Economou,  
University of Athens, Greece

### KN 7: DIRECT ELECTRON TRANSFER TYPE BIOSENSING MOLECULES FOR CONTINUOUS MONITORING

Koji Sode,  
University of North Carolina, USA

### KN 8: BIOSENSING PLATFORM FOR SPORT MEDICINE AND DOPING CONTROL

Camelia Bala,  
University of Bucharest, Romania

### KN 9: A NOVEL DETECTION STRATEGY FOR BACTERIA BASED ON THE COMBINATION OF DEP MICROELECTRODES STRUCTURES WITH ISFET PH SENSORS

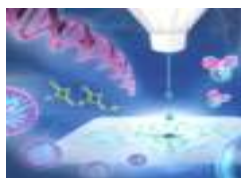
Abdelhamid Errachid,  
University of Claude Bernard Lyon 1, France

### KN 10: NANOMATERIALS INTEGRATED INTO SENSING DEVICES USING EMERGING DESK-TECHNOLOGIES

Flavio Della Pelle,  
University of Teramo, Italy

### KN 11: BIOSENSOR APPLICATIONS OF IN SILICO DESIGNED FUNCTIONAL MATERIALS

Zeynep Altintas  
Technical University of Berlin, Germany & Kiel University, Germany



## Oral communications

### OC 01 :SERS DETERMINATION OF OXIDATIVE STRESS MARKERS IN SALIVA SAMPLES USING SUBSTRATES WITH SILVER NANOPARTICLE-DECORATED SILICON NANOWIRES

A. Kanioura<sup>1</sup>, G. Geka<sup>1</sup>, I. Kochylas<sup>2</sup>, M.A. Apostolaki<sup>2</sup>, V. Likodimos<sup>2</sup>, S. Gardelis<sup>2</sup>, A. Dimitriou<sup>3</sup>, L. Patsiouras<sup>3</sup>, N. Papanikolaou<sup>3</sup>, S. Kakabakos<sup>1</sup>, P. Petrou<sup>1\*</sup>  
<sup>1</sup>Immunoassays/Immunosensors Lab, Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, NCSR "Demokritos" Aghia Paraskevi 15341, Greece  
<sup>2</sup>Section of Condensed Matter Physics, Department of Physics, National and Kapodistrian University of Athens, Zografou 15771, Greece  
<sup>3</sup>Institute of Nanoscience & Nanotechnology, NCSR "Demokritos", Aghia Paraskevi 15341, Greece

### OC 02 :SMART NANOTRANSPORTERS BASED ON METALLOTHIONEIN FOR PANCREATIC CANCER TARGETED THERAPY

Ludek Melich<sup>1</sup>, Julia Werle<sup>1</sup>, Bozena Hosnedlova<sup>3</sup>, Marta Kepinska<sup>3</sup>, Ari Aditya Parkesi<sup>3</sup>, Agnes Pholosi<sup>4</sup>, Carlos Fernandez<sup>5</sup>, Geir Bjorklund<sup>6</sup>, Richard Prusa<sup>1</sup>, Rene Kizek<sup>1,2</sup>  
<sup>1</sup>Department of Medical Chemistry and Clinical Biochemistry, Charles University in Prague and Motol University Hospital, Czechia;  
<sup>2</sup>BIOCEV, First Faculty of Medicine, Charles University, Czechia;

<sup>3</sup>Department of Pharmaceutical Biochemistry, Division of Biomedical and Environmental Sciences, Faculty of Pharmacy, Wroclaw Medical University, Poland;

<sup>4</sup>Department of Bioinformatics School of Life Sciences Indonesia International Institute for Life Sciences Jl.;

<sup>5</sup>School of Pharmacy and Life Sciences, Robert Gordon University, United Kingdom; Council for Nutritional and Environmental Medicine, Norway

### OC 03 : CATIONIC PORPHYRIN TMPYP4 REDOX BEHAVIOR AND INTERACTION WITH DNA, POLYADENYLIC ACID AND POLYGLYANLIC ACID: AFM AND ELECTROCHEMICAL CHARACTERIZATION

A.-M. Chiorcea-Paquim<sup>1,2</sup>, M. N. Manaia<sup>1,3</sup>

<sup>1</sup> Instituto Pedro Nunes (IPN), 3030-199 Coimbra, Portugal,

<sup>2</sup> University of Coimbra, Centre for Mechanical Engineering, Materials and Processes (CEMMPRE), Department of Chemistry, 3004-535 Coimbra, Portugal

<sup>3</sup> University of Coimbra, Faculty of Pharmacy, 3000-548 Coimbra, Portugal

### OC 04 : NEW MONO-ENZYMATIC OXYGEN SCAVENGERS FOR REDUCTASE-BASED BIOSENSORS - APPLICATION IN A NITRITE BIOSENSOR

Tiago Monteiro<sup>1</sup>, M. Gabriela Almeida<sup>1,2</sup>

<sup>1</sup> UCIBIO – Applied Molecular Biosciences Unit, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal.

<sup>2</sup> Centro de investigação interdisciplinar Egas Moniz (CiEM),

Instituto Universitário Egas Moniz, 2829-511, Caparica, Portugal

### OC 05: ELECTROCHEMICAL IMMUNOSENSORS TO DETECT HEMOGLOBIN IN PATIENTS UNDER HOME CANCER CARE

Valeria Frisulli<sup>1</sup>, Amina Antonacci<sup>1</sup>, Viviana Scognamiglio<sup>1</sup>

<sup>1</sup>Institute of Crystallography (IC), National Research Council (CNR), Department of Chemical Sciences and Materials Technologies (DSCTM), Via Salaria km 29.300, 00015 Monterotondo, Rome, Italy

### OC 06: ULTRASENSITIVE ELECTROCHEMILUMINESCENCE DETECTION: FROM BEAD-BASED IMMUNOASSAYS TO CELL IMAGING

Julie Descamps<sup>1</sup>, Dongni Han<sup>2</sup>, Baohong Liu<sup>3</sup>, Dechen Jiang<sup>2</sup>, Neso Sojic<sup>1</sup>

<sup>1</sup>University of Bordeaux, Bordeaux INP, ISM, UMR CNRS 5255, 33607 Pessac, France

<sup>2</sup>State Key Laboratory of Analytical Chemistry for Life, Nanjing University, Nanjing, China

<sup>3</sup>State Key Laboratory of Molecular Engineering of Polymers, Fudan University, Shanghai, China

### OC 07 : NEW DETECTION APPROACH OF ACETAZOLAMIDE FOLLOWING COMPETITIVE WAY ON MOLECULARLY IMPRINTED POLYMER.

Khadija Karim , Abderrahman Lamaoui , Aziz Amine \*

Laboratory of Process Engineering and Environment, Faculty of Sciences and Techniques, Hassan II University of Casablanca, P.A. 146., Mohammedia, Morocco

### OC 08 : NEW STRATEGIES TO FACILITATE THE REMOVAL OF TEMPLATE FOR THE IONS AND MOLECULARLY IMPRINTED POLYMERS

A. Karrat<sup>1,2</sup>, J. J. García-Guzmán<sup>3</sup>, L. Cubillana-Aguilera<sup>1</sup>, A. Amine<sup>2</sup>, J. M. Palacios-Santander<sup>1,\*</sup>

<sup>1</sup>Institute of Research on Electron Microscopy and Materials (IMEYMAT), Department of Analytical Chemistry, Faculty of Sciences, Campus de Excelencia Internacional del Mar (CEIMAR), University of Cadiz, Campus Universitario de Puerto Real, Polígono del Río San Pedro S/N, 11510, Puerto Real, Cádiz, Spain

<sup>2</sup>Laboratoire Génie des Procédés & Environnement, Faculté des Sciences et Techniques, Hassan II University of Casablanca, B.P. 146. Mohammedia, Morocco

<sup>3</sup>Instituto de Investigación e Innovación Biomédica de Cádiz (INIICA), Hospital Universitario 'Puerta del Mar', Universidad de Cádiz, 11009 Cádiz

### OC 09 : SMART SUSTAINABLE NANOSENSORS BASED STRATEGIES FOR CANCER PREVENTION AND EARLY DIAGNOSIS: SMARTANTICANCER

Chérif. DRIDI

NANOMISENE RD Laboratory LR16CRMN01, Center of research on Microelectronics and Nanotechnology (CRMN) of Sousse, Technopole of Sousse, B.P334, 4054 Sahloul Sousse, TUNISIA

### OC 10 :A PAPER BASED MICROFLUIDIC WEARABLE SENSOR FOR CORTISOL MONITORING IN SWEAT

L. Fiore<sup>1</sup>, V. Mazzaracchio<sup>1</sup>, A. Serani<sup>1</sup>, L. Fabiani<sup>1</sup>, G. Volpe<sup>1</sup>, A. Barba<sup>2</sup>, G. M. Bianco<sup>2</sup>, G. Marrocco<sup>2</sup>, D. Moscone<sup>1</sup>, F. Arduini<sup>1,3</sup>

<sup>1</sup>Dipartimento di Scienze e Tecnologie Chimiche, Università degli Studi di Roma "Tor Vergata", Via Della Ricerca Scientifica 1, 00133 Roma

<sup>2</sup>Dipartimento di Ingegneria Civile e Ingegneria Informatica, Università degli Studi di Roma "Tor Vergata", Via del Politecnico 1, 00100 Roma

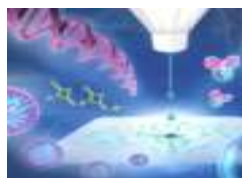
<sup>3</sup>Sense4Med S.r.l., Via Bitonto 139, 00133 Roma

### OC 11 :BIOMIMETIC PAPER-BASED ANALYTICAL DEVICE ENHANCED WITH MOLECULARLY IMPRINTED POLYMER FOR THE ON-SITE DETECTION WITH A SMARTPHONE

Abderrahman Lamaoui <sup>a,\*</sup>, Abdelhafid Karrat <sup>a</sup>, Aziz Amine <sup>a</sup>

<sup>a</sup> Laboratory of Process Engineering and Environment, Faculty of Sciences and Techniques, Hassan II University of Casablanca, P.A. 146., Mohammedia, Morocco





## Oral communications

### **CO 12: ELECTROCHEMICAL DNA BIOSENSOR BASED ON IMMOBILIZATION OF A NON-MODIFIED DNA FROM ITS 5'-TERMINAL PHOSPHATE GROUP USING AUNPS/CB-MODIFIED PENCIL GRAPHITE ELECTRODE**

Hamza Moustakim, Hasna Mohammadi, Aziz Amine\*.

Laboratory of Process Engineering and Environment, Faculty of Sciences and Techniques, Hassan II University of Casablanca, Mohammedia, Morocco.

### **OC 13: EVALUATION OF AGRI-FOOD WASTE VALUE BY AN ELECTROCHEMICAL PAPER ORIGAMI BIOSENSING DEVICE**

Noemi Colozza<sup>1,2</sup>, Erika Di Meo<sup>1</sup>, Danila Moscone<sup>1</sup>, Fabiana Arduini<sup>1,2</sup>

1 Department of Chemical Science and Technologies, University of Rome "Tor Vergata", Via della Ricerca Scientifica, 00133 Rome, Italy

2 SENSE4MED s.r.l., Via della Ricerca Scientifica, 00133 Rome, Italy

### **OC 14: NANOPARTICLES MODIFIED WITH SPIONS, VANCOMYCIN AND APTAMER FOR BACTERIAL STRAIN-SPECIFIC TARGETING**

Julia Werle<sup>1</sup>, Bozena Hosnedlova<sup>2</sup>, Jana Cepova<sup>1</sup>, Arli Aditya Parkesit<sup>3</sup>, Eva Klapkova<sup>1</sup>, Karel Kotaska<sup>1</sup>, Agnes Pholosi<sup>4</sup>, Richard Prusa<sup>1</sup>, Rene Kizek<sup>1,2</sup>

1Department of Medical Chemistry and Clinical Biochemistry, Second Faculty of Medicine, Charles University in Prague and Motol University Hospital, Czechia; 2BIOCEV,

First Faculty of Medicine, Charles University, Czechia; 3Department of Bioinformatics School of Life Sciences Indonesia International Institute for Life Sciences JI.; 4Department of Chemistry, Faculty of Applied and Computer Sciences, Vaal University of Technology, South Africa

### **OC 15: 3D PRINTED CARBON BLACK/THERMOPLASTIC POLYURETHANE-BASED ELECTROCHEMICAL SENSOR FOR FREE CHLORINE DETECTION IN WATER**

L. Gullo<sup>1</sup>, L. Caccavelli<sup>1</sup>, L. Fiore<sup>1,2</sup>, N. Colozza<sup>1,2</sup>, D. Moscone<sup>1</sup>, F. Arduini<sup>1,2</sup>

1Dipartimento di Scienze e Tecnologie Chimiche, Università degli Studi di Roma "Tor Vergata", Via della Ricerca Scientifica, 1 – 00133 Roma

2 Sense4Med S.r.l., Via Bitonto 139 – 00133 Roma

### **OC 16: HAPTOGLOBIN ELECTROCHEMICAL DIAGNOSTIC METHOD FOR SUBCLINICAL MASTITIS DETECTION IN BOVINE MILK**

S. Carinelli\*, I. Fernández, J.L. González-Mora, P.A. Salazar-Carballo

Laboratory of Sensors, Biosensors and Advanced Materials, Faculty of Health Sciences, University of La Laguna, Campus de Ofra s/n, 38071 La Laguna, Tenerife, Spain

### **OC 17: METAL-ENHANCED IMMUNOFLUORESCENT DETECTION OF CA125 ON NANOSTRUCTURED SILVER SUBSTRATES**

G. Geka<sup>1,2</sup>, A. Kanioura<sup>1</sup>, I. Kochylas<sup>3</sup>, V. Likodimos<sup>3</sup>, S. Gardelis<sup>3</sup>, A. Dimitriou<sup>4</sup>, N. Papanikolaou<sup>4</sup>, M. Chatzichristid<sup>2</sup>, A. Economou<sup>2</sup>, S. Kakabakosa, P. Petrou<sup>1\*</sup>

1Immunoassays/Immunosensors Lab, Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, NCSR "Demokritos" Aghia Paraskevi 15341, Greece

2Department of Chemistry, National and Kapodistrian University of Athens, Zografou 15771, Greece

3Section of Condensed Matter Physics, Department of Physics, National and Kapodistrian University of Athens, Zografou 15771, Greece

4Institute of Nanoscience & Nanotechnology, NCSR "Demokritos", Aghia Paraskevi 15341, Greece

### **OC 18: BIOCHAR-BASED SCREEN-PRINTED ELECTRODES AS POWERFUL IMMUNOSENSING PLATFORMS FOR THE SELECTIVE DETECTION OF IL-6**

R. Cancelliere<sup>1</sup>, G. Contini<sup>2,3</sup>, E. Signori<sup>4</sup>, L. Micheli<sup>1</sup>.

1Department of Chemical Sciences and Technologies, University of Rome Tor Vergata, Via della Ricerca Scientifica 1, 00133 Roma, Italy

2Istituto di Struttura della Materia-CNR (ISM-CNR), Via Fosso del Cavaliere 100, 00133 Roma, Italy

3 Department of Physics, University of Rome Tor Vergata, Via della Ricerca Scientifica 1, 00133 Roma, Italy

4 Istituto di Farmacologia Traslazionale-CNR (IFT-CNR), Via Fosso del Cavaliere 100, 00133 Roma, Italy.

### **OC 19: A NOVEL MAGNETIC MOLECULARLY IMPRINTED POLYMER FOR SELECTIVE EXTRACTION AND DETERMINATION OF QUERCETIN IN PLANT SAMPLES**

A. Karrat<sup>1,2</sup>, J. M. Palacios-Santander<sup>1</sup>, A. Amine<sup>2</sup>, L. Cubillana-Aguilera<sup>1\*</sup>

1Institute of Research on Electron Microscopy and Materials (IMEYMAT), Department of Analytical Chemistry, Faculty of Sciences, Campus de Excelencia Internacional del Mar (CEIMAR), University of Cadiz, Campus Universitario de Puerto Real, Polígono del Río San Pedro S/N, 11510, Puerto Real, Cádiz, Spain

2Laboratoire Génie des Procédés & Environnement, Faculté des Sciences et Techniques, Hassan II University of Casablanca, B.P. 146. Mohammedia, Morocco

3Laboratoire Génie des Procédés & Environnement, Faculté des Sciences et Techniques, Hassan II University of Casablanca, B.P. 146. Mohammedia, Morocco

### **OC 20: ENZYME-BASED BIOSENSOR TO DETECT CHLORPYRIFOS PESTICIDE FOR ENVIRONMENT AND AGRO-FOOD SAFETY**

Y. AGHOUTANE<sup>a,b</sup>, B. BOUCHIKHI<sup>b</sup>, N. EL BARI<sup>a</sup>,

<sup>a</sup> Biosensors and Nanotechnology Group, Department of Biology, Faculty of Sciences, Moulay Ismaïl University, B.P. 11201, Zitoune, Meknes, Morocco

<sup>b</sup> Biosensors and Nanotechnology Group, Department of Physics, Faculty of Sciences, Moulay Ismaïl University of Meknes, B.P. 11201, Zitoune, Meknes, Morocco

### **OC 21: ELECTROCHEMICAL SENSING APPROACH FOR THE DETECTION OF CIPROFLOXACIN RESIDUES IN FOOD AND ENVIRONMENTAL SAMPLES**

M. WAR<sup>a</sup>, Y. AGHOUTANE<sup>a,b</sup>, S. MOTIA<sup>a,b</sup>, B. BOUCHIKHI<sup>b</sup>, N. EL BARI<sup>a</sup>

<sup>a</sup> Biosensors and Nanotechnology Group, Department of Biology, Faculty of Sciences, Moulay Ismaïl University of Meknes, B.P. 11201, Zitoune, Meknes 50003, Morocco

<sup>b</sup> Biosensors and Nanotechnology Group, Department of Physics, Faculty of Sciences, Moulay Ismaïl University of Meknes, B.P. 11201, Zitoune, Meknes 50003, Morocco

### **OC 22: INTERLEUKIN 6 (IL-6) ELECTROCHEMICAL DETECTION ASSISTED WITH EPOXY-MODIFIED-MAGNETIC NANOPARTICLES: ELIME APPROACH.**

S. Carinelli, I. Fernández, J.L. González-Mora, P.A. Salazar-Carballo\*

Laboratory of Sensors, Biosensors and Advanced Materials, Faculty of Health Sciences, University of La Laguna, Campus de Ofra s/n, 38071 La Laguna, Tenerife, Spain

### **OC 23: FAST SONOCHEMICAL MOLECULARLY IMPRINTED POLYMER SYNTHESIS COMBINED TO CARBON BLACK-BASED ELECTROCHEMICAL SENSORS FOR MALEIC HYDRAZIDE DETERMINATION IN FOOD**

Dounia Elfadil<sup>a,b</sup>, Sara Palmieri<sup>a</sup>, Filippo Silveri<sup>a</sup>, Flavio Della Pelle<sup>a</sup>, Dario Compagnone<sup>a\*</sup>, Aziz Amine<sup>b,\*</sup>.

<sup>a</sup> Faculty of Bioscience and Technology for Food, Agriculture and Environment, University of Teramo, via Renato Balzarini 1, 64100 Teramo, Italy

<sup>b</sup> Laboratory of Process Engineering and Environment, Faculty of Sciences and Techniques, Hassan II University of Casablanca, Mohammedia, Morocco

### **OC 24: HIGHLY SENSITIVE AND SPECIFIC BIOSENSORS FOR FOOD HAZARDS DETECTION BY HARNESSING CHROMIC RESPONSE OF POLYDIACETYLENE WITH SIGNAL AMPLIFICATION STRATEGIES**

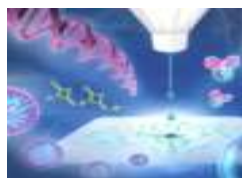
Q. Li<sup>a, b, c</sup>, D. Han<sup>b</sup>, G. Salentijn<sup>c, d</sup>, T. Sun<sup>a</sup>, Zh. An<sup>b</sup>, Zh. Wang<sup>a</sup>, Zh. Gao<sup>b</sup>

<sup>a</sup> School of Food Science and Technology, Jiangnan University, Wuxi 214122, China

<sup>b</sup> Tianjin Institute of Environmental and Operational Medicine, Tianjin 300050, China

<sup>c</sup> Wageningen Food Safety Research, Wageningen University & Research, P.O. Box 230, 6700 AE Wageningen, the Netherlands

<sup>d</sup> Laboratory of Organic Chemistry, Wageningen University, Wageningen 6708 WE, The Netherlands



## Posters

### **P1: CRITICAL ROLE OF PH, IONIC STRENGTH AND REDOX PROBES IN THE DESIGN OF MOLECULARLY IMPRINTED POLYMERS FOR PROTEINS DETECTION**

Amal TLILI<sup>1,2</sup>, Ghada ATTIA<sup>2</sup>, Najla FOURATI<sup>2</sup>, Chouki ZERROUKI<sup>2</sup>, Nourdin YAAKOUBI<sup>3</sup>, Ali OTHMANE<sup>1</sup>

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### **P2: COMPUTATIONAL APPROACH AND A PRELIMINARY STUDY CONCERNING THE DESIGN OF A MIP-BASED ELECTROCHEMICAL SENSOR FOR VITAMIN B3 DETECTION**

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### **P3: A SENSITIVITY-MODULABLE ELIMC ASSAY FOR DETECTING MICROCYSTINS/NODULARINS IN WATER SAMPLES**

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### **P4: EVALUATION OF FAECAL BILE SALT HYDROLASE (BSH) ACTIVITY BY NEW BIOLUMINESCENCE CAGED-LUCIFERIN BIOSENSOR: GATEKEEPERS ROLE ON HOST-MICROBIOME CROSSTALK IN LIVER-GUT AXIS AND COLON CANCER**

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### **P5: AFFORDABLE STRATEGIES TO PRODUCE METAL NANOSTRUCTURES ON FLEXIBLE DEVICES FOR COLORIMETRIC SENSING**

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### **P6: DEVELOPMENT OF A NEW STRATEGY FOR IMMOBILIZATION OF NUCLEOTIDE SEQUENCES ON CHITOSAN BEADS AND DETECTION OF GUANINE RELEASED AFTER HYDROLYSIS.**

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### **P7: VOLTAMMETRIC CHARACTERISATION OF CARVACROL AND ITS INTERACTION WITH DNA**

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### **P8: RAPID AND SENSITIVE CARDIAC BIOMARKER SENSORS BASED ON LASER-SCRIBED GRAPHENE FOR POINT-OF-CARE SYSTEMS**

Walaa Khushaim,<sup>1</sup> Karthik Peramaiya<sup>2</sup> Tutku Beduk,<sup>1</sup> Mani Teja Vijjapu,<sup>1</sup> José Ilton de Oliveira Filho,<sup>1</sup> Kuo-Wei Huang,<sup>2</sup> Veerappan Mani,<sup>1</sup> Khaled N. Salama<sup>1</sup>

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## Meeting with Editors (25 minutes)

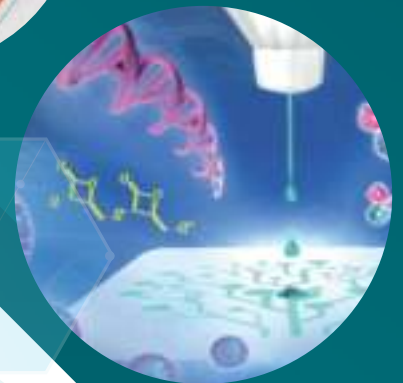
- Aziz Amine
- Pankaj M. Vadgama
- Fabiana Arduini





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