

PROGRAMME

Monday, 25th of March, 2024

09:30-10:30 Registration
Poster Setup

10:30-11:00 Opening ceremony (Carvalho Guerra Auditorium)
Raquel Mesquita (Conference chair), Marcela Segundo (DAC-SPQ President),
António Rangel (Conference co-chair), Isabel Braga da Cruz (CRP President),
Paula Lima Castro (Director of ESB-UCP)

SESSION 1 (Carvalho Guerra Auditorium)

Chair: Raquel Mesquita

11:00-11:50 **PL1** – *Nanomaterial and redox polymer-modified electrochemical sensor and biosensor platforms*
Christopher Brett

11:50-12:30 **KL1** – *Electrochemical biosensing in the heart of Food, Health, and Environmental challenges*
Hendrikus Nouws

12:30-12:45 Sponsor Communication – *SOLÍTICA*

12:45-14:00 LUNCH

SESSION 2 (Carvalho Guerra Auditorium)

Chair: António Rangel

14:00-14:50 **PL2** – *Affordable, point-of-care paper-based nucleic-acid biosensors with on-board reagents, for disease diagnostics in underserved communities*
Julien Reboud

14:50-15:20 **KL2** – *Wine oxidation and port wine authenticity: from metabolomics to emerging smart sensor technology*
António César Ferreira

SESSION 3 (Carvalho Guerra Auditorium)

15:20 – 16:05

Flash Poster Presentations for Young Scientists

Chair: Juliana Aguiar

- FPYS1** - *Investigating the impact of oxygen on cyp3a4 enzyme catalytic cycle by electrochemical driven metabolism*
Carina S. P. Vieira
- FPYS2** - *Variability in Listeria monocytogenes susceptibility to benzalkonium chloride*
Catarina Ferreira
- FPYS3** - *The potential of tuna bone char as a sorbent material for pharmaceuticals removal from wastewaters*
Catarina Miranda
- FPYS4** - *Effect of oxygen functionalization of brewery waste activated carbon for the removal of antibiotics from wastewater*
Érika M. L. Sousa
- FPYS5** - *In situ silk fibroin conformational change using an coaxial-printing strategy for knee meniscus replacement*
Francisco A. P. Rodrigues
- FPYS6** - *Impact of nitrite reduction on the technological evaluation of cooked porked ham*
Maria João Nunes
- FPYS7** - *Customized decellularization protocol of rabbit dermal matrix for tissue engineering applications*
Marta Rosadas
- FPYS8** - *Unlocking the Potential of Montesinho's Wild Mushrooms: Controlled Cultivation for Quality and Nutrition*
Matilde Rodrigues
- FPYS9** - *Beyond Byproducts: Exploring the Abundance of Legume Phytochemicals and the potential within their Hulls*
Rafael D. C. Duarte
- FPYS10** - *Indirect evidence of microbial modulation induced by encapsulated A. Muciniphila*
Rita Vedor

FPYS11 - *(Fe)rtilizing plants: Iron monitorization in hydroponic and soil cultures*
Tânia Moniz

FPYS12 - *Photocatalytic efficiency of novel magnetic nanoparticles, carbon quantum dots and tio2 composites for the removal of antibiotics from water*
Valentina Silva

FYPS13 - *ATR-FTIR as a high throughput tool for quick screening of lipolysis in 3T3-L1 adipocytes*
Manuela Machado

FYPS14 - *On the Signal Transformation for Palladium Voltammetric Analysis in the Environment: Optimization and Application*
Maria Jeremias

16:05-17:00 Coffee Break & Poster Discussion

SESSION 4 (Carvalho Guerra Auditorium)

17:00-18:30

Young Scientist Oral Presentations

Chair: Tânia Ribas

YSOP1 – *Development of a low pressure chromatographic flow system with amperometric detection featuring a phenyl monolithic column for the determination of α -dicarbonyl compounds*
Alexandra Rangel Silva

YSOP2 – *Flow analysis system for yeast determination in the course of beer fermentation process*
Barlomiej Trojanowski

YSOP3 - *Light-driven molecular oxygen reduction as an efficient method to supply paper-based microfluidics with hydrogen peroxide*
Izabela Lewińska

YSOP4 - *Batch, flow and microfluidic analysis - critical evaluation of creatinine determination methods using the RGB model*
Justyna Paluch

SESSION 5 (EBI Auditorium – Arménio Miranda)

17:00-18:30

Young Scientist Oral Presentations

Chair: Luísa Barreiro

YSOP7 - *Chemical characterization of mushroom polysaccharide extracts: towards biological and therapeutic applications*
Andreia Silva Fernandes

YSOP8 - *Quantification of Adenosine released from silk fibroin aerogels for advanced wound healing therapeutics*
Beatriz G. Bernardes

YSOP9 – *Physicochemical Characterization of a Sustainable Postbiotic Extract for Skin Application*
Marco Duarte

YSOP10 – *Polyphenol enriched grape seed extract for skin application*
Maria Leonor Castro

YSOP5 - *Catalytic determination of chloride in water using a lab-on-valve flow system*
Mafalda G. Pereira

YSOP6 - *Point-of-care enzymatic quantification of glucose in saliva with a newly designed microfluidic paper-based device*
Francisca T. S. M. Ferreira

YSOP11 – *A sustainable insight into bio-based membrane for haemodialysis*
Maria Martingo

YSOP12 – *Identification of antioxidant compounds from fresh and frozen mango peels using spectrophotometric and HPLC methodologies*
Sara Marçal

18:30 Meeting DAC-SPQ

20:00 Conference Dinner

Tuesday, 26th of March, 2024

SESSION 6 (Carvalho Guerra Auditorium)

Chair: Marcela Segundo

09:10-10:00 **PL3** – *Challenges in food and health research*

M^a Rosário Bronze

10:00-10:30 **KL3** – *Analytical strategies for the study of in vitro inhalation*

bioaccessibility and bioavailability of organic pollutants

Joel Sanchez-Piñero

SESSION 7 (Carvalho Guerra Auditorium)

10:30-10:45

Flash Poster Presentations for Young Scientists

Chair: Francisca Ferreira

FPYS15 - *Development of a microfluidic paper-based sensor for aluminium assessment in water for domestic consumption*

Juliana I. S. Aguiar

FPYS16 - *Integration of synthesis and analysis in a lab-on-valve system for silver nanoparticles-based creatinine determination*

Oliwia Świerczyna

FPYS17 - *Method development for the quantification of metals in firefighters wipe samples*

Gabriela Sousa

FPYS18 - *Validation of an analytical method for the determination of antidepressants in wastewater using SPE and GC-MS/MS*

Gonçalo Catarro

FP1 - *Ultrasound-assisted extraction of polycyclic aromatic hydrocarbons in canned fish products*

Cristina Soares

10:45-11:30 Coffee Break & Poster Discussion

SESSION 8 (Carvalho Guerra Auditorium)

11:30-12:45

Oral Presentations

Chair: Margarida Romão

OP1 – *Interaction of the dna-electrochemical biosensor with anticancer monoclonal antibodies*
Ana Maria Oliveira-Brett

OP2 – *Preparation of hydrophilic Ag₂Se quantum dots for SEIRA applications*
Goreti Pereira

OP3 - *Polydopamine coating for reagent-free enzyme immobilization*
Kamil Strzelak

OP4 - *Why are 3-hydroxy-4-pyridinone chelators appealing as chromogenic and fluorescent probes?*
Maria Rangel

12:45-14:00 LUNCH

SESSION 10 (Carvalho Guerra Auditorium)

Chair: Vânia Calisto

14:00-14:50 **PL4** – *Affordable sample treatment: smart materials and low-cost supports leading the way*
Jose Martinez

14:50-15:20 **KL4** – *NMR spectroscopic applications to water-soluble organic aerosols analysis: research progress and future perspectives*
Regina Duarte

SESSION 9 (EBI Auditorium – Arménio Miranda)

11:30-12:45

Young Scientist Oral Presentations

Chair: Joel Sanchez-Piñero

YSOP13 - *Validating clinical transferrin saturation values through a direct analytical method*
Eduardo Ramos

YSOP14 - *The role of raw material characterization on the development of models for continuous tableting*
Ana Martins

YSOP15 – *3D-printed devices for microsampling and extraction: application for the determination of anticoagulants in biomatrices*
Sara R. Fernandes

YSOP16 – *A novel procedure for water sampling and sample preparation in a single step for metal ions monitoring*
Francisco A. P. Rodrigues

YSOP17 - *Phytochemical profile and antioxidant activity of garden rhubarb rhizome*
Matilde Rodrigues

SESSION 11 (Carvalho Guerra Auditorium)

15:20-15:50

Flash Poster Presentations for Young Scientists

Chair: Francisca Ferreira

- FPYS19** - *Waste-based magnetic activated carbon in the removal of PFAS from effluent water*
Diogo Pereira
- FPYS20** - *Development of an analytical methodology for fluoxetine extraction and quantification in sediments*
Joana Fernandes
- FPYS21** - *Metal ions retention: polymer inclusion membrane as sorbent material*
Maria M. P. Melo
- FPYS22** - *Silica-based porous materials for the adsorption of hormones from water*
Tiago Morais
- FPYS23** - *ELISA quantification of pharmaceuticals in toxicological assessments*
Ângela Almeida
- FPYS24** - *Chromatographic analysis of vetiver essential oil cultivated by hydroponics and conventional agriculture using GC-MS*
Beatriz Andrade dos Santos
- FPYS25** - *Using a smartphone as dual-purpose detector for lithium determination*
Karol Kubacki
- FPYS26** - *Fluorimetric determination of tobramycin using a smart portable device*
Karolina Mermer
- FPYS27** - *Monitoring β -blockers in biological and environmental matrices using bar adsorptive microextraction (BA μ E)*
Mariana F. Mendes
- FPYS28** - *Development of a methodology to analyze fire-released pollutants in chewing gum*
Pedro Almeida
- FPYS29** - *Implementation of a spe-hplc-dad procedure to collect and analyse volatile organic compounds*
Raquel Torres Fernandes

15:50-16:40 Coffee Break & Poster Discussion

SESSION 12 (Carvalho Guerra Auditorium)

16:40-17:40

Oral Presentations

Chair: José Maia Rodrigues

OP5 – *Evaluation of seasonal trends in vast marine systems using monte carlo simulations of georeferenced information*

Carlos Manuel B. F. Borges

OP6 – *Analytical insights from a decade of platinum-group elements' biogeochemistry in iberian ecosystems*

Carlos E. Monteiro

OP7 - *Methodology for pharmaceuticals quantification in aquatic samples using biomass-based sorbents*

Diana Lima

SESSION 13 (EBI Auditorium – Arménio Miranda)

16:40-17:40

Oral Presentations

Chair: Ana Maria Oliveira-Brett

OP8 - *Assessing the impact of legume cultivation on soil quality*

Marta Nunes da Silva

OP9 - *Carbon nanotube and poly(thionine) modified electrodes with electropolymerization in ternary deep eutectic solvents for the determination of ascorbic acid*

Joseany M. S. Almeida

OP10 – *Development and validation of a methodology to characterize food matrices*

Eduarda Pereira

17:40 Closing Ceremony (Carvalho Guerra Auditorium)