

PATH/ILSurvive Workshop

September 22nd, 2023 – University of Aveiro

Widening the Range of Opportunities to Combine Alternative Solvents and Microfluidic Devices

- Sustainable Development -

Program

Organizing Committee:

Francisca A. e Silva

João Vasco Valente

Mara G. Freire

Program

The workshop will be held at *Auditório José Grácio (22.3.1)* – Department of Mechanical Engineering at the University of Aveiro

09:30 – Opening session

Francisca A. e Silva and Mara G. Freire

CICECO, Department of Chemistry, University of Aveiro

ILSurvive project (Chair Dr. João A. P. Coutinho)

09:45 – *Enhancing sample pretreatment and biomarker extraction using ionic liquid-based aqueous biphasic systems*

Maria S. M. Mendes

CICECO, Department of Chemistry, University of Aveiro

10:00 – *Detection of Prostate Specific Antigen in microfluidic structures using ionic liquid two-phase systems*

Joana R. Gomes

INESC MN and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa

10:15 – *Detection of HER2 from an ionic liquid system using a microfluidic device*

Inês Agostinho

INESC MN

10:30 – Discussion

10:40 – 11:10 – Coffee-break

Health (Chair Dr. Márcia C. Neves)

11:10 – *Enhancing mRNA nasal delivery via microfluidics and gellable aqueous biphasic systems*

Bojan Kopilovic

CICECO, Department of Chemistry, University of Aveiro

11:25 – *Advanced microfluidic devices for cell culture and point-of care immunoassays*

Pedro G.M. Condelipes

INESC MN and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa

11:40 – *Polymer-based aqueous biphasic systems as an efficient tool for the recovery of protein-based biopharmaceuticals*

Leonor S. Castro

CICECO, Department of Chemistry, University of Aveiro

11:55 – *Perspectives on using Aqueous Biphasic Systems for Health-based applications: Miniaturization and Microfluidics*

Jorge F. B. Pereira

CIEPQPF, Department of Chemical Engineering, University of Coimbra

12:10 – Discussion

12:20 – 14:00 – Lunch Break (*Crasto*)

Agrofood (Chair Dr. Virginia Chu)

14:00 – Point-of-use single step microfluidic sensor and in-field sample treatment for the detection of abiotic and biotic stresses in grapevines

Cristiana Domingues

INESC MN

14:15 – Isothermal DNA amplification in Microfluidics - Biomedical and Agrofood applications

Rafaela R. Rosa

INESC MN

14:30 – 2D approaches for simultaneous extraction and analysis of food bioactive compounds (2D-PLE-SPExHPLC)

Leonardo M. de Souza Mesquita

LabMAS, School of Applied Sciences, University of Campinas

14:45 – Discussion

Responsible Production and Consumption (Chair Dr. Ana Paula M. Tavares)

14:55 – Development of sustainable downstream processes applied to blue biorefinery

Sónia P. M. Ventura

CICECO, Department of Chemistry, University of Aveiro

15:10 – Processing of cyclic olefin copolymer (COC) for microfluidic biochips

Rodolfo G. Rodrigues

INESC-MN

15:25 – Taking the PATH less traveled, a short journey in metal extraction

Nicolas Schaeffer

CICECO, Department of Chemistry, University of Aveiro

15:40 – Discussion

15:50 – 16:20 – Coffee-break

Future opportunities (Chair Dr. Pedro J. Carvalho)

16:20 – Integrated microfluidic platforms: biosensing, microreactors, and cell-chips

João P. Conde

INESC MN and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa

16:50 – Final Discussion

17:00 – Closing session

Francisca A. e Silva and Mara G. Freire

CICECO, Department of Chemistry, University of Aveiro

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