PATh/ILSurvive Workshop

September 22$^{nd}$, 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
CEIPQPF, 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
ACKNOWLEDGEMENTS

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