COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Ana Rita, Duarte
Type (Academic or Industrial): Academic
Country: Portugal
Leadership position in the COST: Action Chair on CA18224
Working Group in which you are involved: WG1, WG2, WG3, WG4
E-mail: aduarte@fct.unl.pt

Laboratory/Company: Des Solve, LAQV, REQUIMTE, Departamento de Química da Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, 2829-516 Caparica, Portugal

Laboratory/Company info:
FCT NOVA is home to a research unit called Associate Laboratory for Green chemistry (LAQV), which is the largest network in chemistry and chemical and Biochemical Engineering established in Portugal. The complementary scientific areas from LAQV allows a comprehensive approach to the topic of Green chemistry – Clean Technologies and Processes

Link to the home page of the Laboratory/Company: https://sites.fct.unl.pt/des-solve/home

Fields of expertise:
- Development of deep eutectic systems for new applications (extraction, biocatalysis, therapeutics, cryopreservation, among others)
- Study the fundamental properties of deep eutectic systems (viscosity, density, polarity, acidity, thermal properties)
-

5 Main publications or patents:
- Carolina V. Pereira, Joana M. Silva, Liliana Rodrigues, Rui L. Reis, Alexandre Paiva, Ana Rita C. Duarte, Ana Matias, "Unveil the anticancer potential of limonene based deep eutectic solvents", Scientific Reports, 9, 14926, 2019
- **Invited publication** Alexandre Paiva, Ana A. Matias, Ana Rita C. Duarte, How do we drive deep eutectic systems towards an industrial reality?, Current Opinion in Green and Sustainable Chemistry, Vol 11, 81-85, 2018
- EP 17179887.9 patent application, Castro V., Silva J. M., Craveiro R., Reis R. L., Paiva A., and Duarte A. R. C., Cryoprotectant and/or cryopreservant composition, methods and uses thereof, registered on 05/07/2017
- Ana Rita C. Duarte, Ana Sofia Ferreira, Eurico Cabrita, Rui . Reis, Alexandre Paiva, "A comparison between pure active pharmaceutical ingredients and therapeutic deep eutectic solvents: solubility and permeability studies", European Journal of Pharmaceutics and Biopharmaceutics, 114, 296-304, 2017
- Alexandre Paiva, Rita Craveiro, Ivo Aroso, Marta Martins, Susana Barreiros, Rui L. Reis, Ana Rita C. Duarte, "Natural deep eutectic solvents – solvents for the 21st Century", ACS Sustainable Chemistry & Engineering, 60 (11), 3701-3706, 2014

Collaborations:

- IBET (Portugal)
- 3B´s Research Group, University of Minho (Portugal)
- Sona Raeissi (Shiraz University, Iran)
- Luís Branco (FCT-UNL, Portugal)
- Francisco del Monte (ICMM-CSIC Madrid, Spain)
- Elisabeth Badens (Aix-Marseille University, France)
- Eduardo Cassel (PUCRS, Porto Alegre, Brasil)
- Allison Hubel's Lab (University of Minnesota, USA)

Facilities:

- Rheometer MCR 102, APA-R-92001
- Viscosimeter/Densimeter STABINGER SVM 3001
- High Pressure Reactor Parr Instrument Company 4547
- Polarized Optical Microscopy coupled with Differential Scanning Calorimetry (LINKAM DSC600)
- Microscope (Zeiss, modelo Axio Vert A1 and Olympus, modelo BX53F2)
- Facilities for in vitro biological assays with human cell lines