

<b>Name SURNAME</b> Michail Koutinas			
<b>Function:</b>	Assistant Professor		
<b>Institution:</b>	Dpt. of Environmental Science and Technology Cyprus University of Technology 30 Archbishop Kyprianou Str. Limassol 3036 Cyprus		<input type="checkbox"/> Funding Agency <input type="checkbox"/> Programme Manager
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<b>Division</b>	Department of Environmental Science and Technology		
<b>Areas of Expertise:</b>			
<p>Dr Koutinas is an Assistant Professor of Environmental Biotechnology at Cyprus University of Technology and holds a PhD in Biochemical Engineering from Imperial College London where he also worked as a Post-Doc. His interests involve the biological treatment of toxic industrial pollutants, the production of added-value chemicals from renewable resources, advanced molecular techniques and bioprocess modelling.</p>			
<b>Short Description of your Institution:</b>			
<p>CUT supports the state, industry and society in their efforts to confront problems, which cover all areas of science and technology towards basic and applied research. The main objectives of the Department of Environmental Science and Technology, although recently established (2007), is to produce high-quality research and to disseminate through its top quality education, the necessary scientific knowledge and technological applications, enabling the sustainable development and improved competitiveness of Cyprus' environment sector. The academic personnel involved in the project have a remarkable experience in the field of research, especially in the areas of Food Waste Bioprocessing and Bioorganic Chemistry from previous participation in many related to the topic projects. The University, despite its recent beginning, has already managed to dispose of a significant number of research projects funded by the Cyprus Research Promotion Foundation and by the European Research Framework Programmes (FP6, FP7 and H2020), the LIFE and IEE Programmes, the European Territorial Cooperation Programmes such as Interreg IIIB, Archimed, Interreg IVC, Cross Border Cooperation Greece – Cyprus, MED, Water JPI, FACCE JPI and other.</p>			
<b>Role in the project:</b>			
<p>CUT (WP3) will isolate microbial strains with potential modification and/or biodegradation ability for the selected alkaloids. The biodegradation/modification of alkaloids will be enhanced through immobilization of cells in microbial carriers which act as promoters of biochemical reactions. The most effective support will be applied in the bioprocess which will be tested in a lab-scale bioreactor. Microbial strains with enhanced alkaloids degradation capabilities will be utilized in the anaerobic digester in order to improve the systems efficiency during the treatment of UF and RO retentates. Chemical characterization, quantification of alkaloids and fermentation products will be conducted through NMR and HPLC. Derivatisation intermediates and bioconversion kinetics will be determined aiming to optimise the bioprocess.</p>			

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