



Thursday 5 November EU-India PARTNERING EVENT

PROFILE FORM

ORGANISATION DETAILS				
Organisation name Foundation for Research and Technology-Hellas/Institute of Chemical Engineering and High Temperature Chemical Processes (FORTH/ICE-HT)				
Street * Stadiou St.				
ZIP * 265 04	City * PATRAS		Country * GREECE	
Phone * +302610965249		Fax +302610965223		
Email * mklapa@iceht.forth.gr		Web www.iceht.forth.gr/staff/mklapa		
Employees	<input type="checkbox"/> 1-10	<input type="checkbox"/> 11 - 50	<input type="checkbox"/> 51 - 250	<input type="checkbox"/> 250 +
Organisation type	<input type="checkbox"/> University <input checked="" type="checkbox"/> Research Center <input type="checkbox"/> Industry <input type="checkbox"/> SME <input type="checkbox"/> Other			
Department	Institute of Chemical Engineering and High-Temperature Chemical Processes/ Metabolic Engineering and Systems Biology Laboratory			
Short description of your company/organization	<p>FORTH is one of the largest research centers of Greece with well - organized facilities and a highly qualified staff. Based on the last evaluation sponsored by the Greek state (2005) and carried out by international scientific committees, FORTH was the only Greek research center with all its research institutes assigned an "excellent" grade. The Institute of Chemical Engineering and High Temperature Chemical Processes (ICEHT) was funded in 1984 and focuses on the chemical engineering sciences with three major research focuses: Materials/Nanotechnology, Energy/Environment,</p> <p>Biosciences/Biotechnology</p>			

PARTICIPANT			
Gender	<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	Title Ph.D.
First name	Maria		
Last name	Klapa		
Position	Associate Researcher/Laboratory Head		

PARTNERSHIP PROPOSAL
<p><u>EU-India partnering event session participation:</u></p> <p><input type="checkbox"/> Sustainable production and management of biological resources from land, forest and aquatic environment</p> <p><input type="checkbox"/> Fork to farm: Food (including seafood), health and well being</p> <p><input type="checkbox"/> Life sciences, biotechnology and biochemistry for sustainable</p> <p><input type="checkbox"/> Health</p>
<p>Areas of activity (Free keywords) <i>Metabolic Engineering with emphasis in metabolomics and metabolic flux analysis, quantitative systems biology, mathematical modeling of biological systems – Applications: cell culture engineering, plant biotechnology, molecular diagnostics</i></p>

PROJECT DESCRIPTION	
Title of your research project in one sentence	Making sense of metabolic complexity: Application of metabolomic analysis for the development of molecular diagnostic tools, or enhanced bioprocess monitoring
Short description of project	Metabolomics is the most recent of the high-throughput “omic” technologies, providing the metabolic equivalent of the transcriptomic and proteomic profiles. Metabolomic analysis can study the metabolic state of a system in a holistic way, providing the means for the identification of early diagnostic patterns of a disease or better monitoring of a process in cell culture engineering. Metabolomic analysis has a series of advantages over the Transcriptomic and proteomic analyses: it is much less costly, it requires less user training, it does not require specific unique platforms for each system and it targets the metabolism, which is the closest to the phenotype cellular level. It is still at its standardization phase, however there exists great potential from its use in agro-biotechnology, cell culture engineering, molecular diagnostics and health. A meeting with pharma companies (protein production companies/cell culture engineering companies) and/or molecular diagnostics companies and/or research partners would be beneficial to discuss issues of mutual interest.
	Extensive expertise in metabolomics, metabolic flux analysis, mathematical modeling,

Description of expertise offered	integrated omic research and systems biology/ biochemical and cell culture engineering
Description of requested partner expertise	One of my former PhD students at University of Maryland, USA is manager of NEOGEN CHEMICALS, in Mumbai, India. We are planning to collaborate on furthering technology development strategies for metabolic network analysis with application in pharma research and cell culture engineering. Additional partners requested from Pharma, agrobiotechnology and cell culture engineering industries