

PARTNER SEARCH	
DESCRIPTION OF RESEARCH ORGANIZATION	
Organization name	Laboratory of Microbial Storage Products Research, Institute of Microbiology and Biotechnology, University of Latvia
Description of organization	<p>Research interests include:</p> <ul style="list-style-type: none"> ✓ investigation of the physiology and biochemistry of micro organisms under different growth conditions including suspended growth (batch or fed-batch fermentations) ✓ investigation of biofilm formation on the surface of solid carriers, ✓ special interest in the investigation of microbial reserve polymers and biodegradable polymeric composed materials for agriculture and food packaging, ✓ investigation of resistance mechanisms to extreme environmental conditions including industrial fermentation conditions, ✓ recovery of microbial product (polysaccharides, polyhydroxyalkanoates, polyphosphates).
Research experience	<ul style="list-style-type: none"> • EU project QLRT-2000-00163 Multifunctional permeable barriers carrying well-performing microbial bio films for treatment of mixed pollutant plumes (2003-2005) contractor; • EU RTD FP6 project COST Action 868 Biotechnical fictionalization of renewable polymeric materials (ongoing); partner • ESF project “Intermediate Research Group Development for Elaboration and Introduction of New Fluorescent Materials and Methods“ partner; (2009-2012).
CONTACT INFORMATION	
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TOPICS OF INTEREST

Topic	<p>Reducing mineral fertilisers and chemicals use in agriculture by recycling treated organic waste as compost and bio-char products.</p> <p>Advanced and flexible technologies for sustainable and functional food packaging.</p> <p>Towards a sustainable bio-industry - Biotechnology for renewable chemicals and innovative downstream processes.</p>
Plan to participate as	Partner
Call Identifier	WP2011 Call: FP7-KBBE-2011-5
Expertise related to the topics	<p>Optimization of cultivation process of microorganisms producing different metabolites- ethanol, lactate, succinate as well as reserve polymers - polyhydroxyalkanoates.</p> <p>Metabolic pathways and fermentation process optimization under laboratory scale conditions for the production of useful commodities from inexpensive renewable substrates.</p> <p>Use of fluorescent methods for microbial metabolism investigation.</p> <p>Investigation of biodegradable PHA-based biopolymers and their composites for the development of bio-based packaging materials for agriculture and food industries.</p>
Potential contribution to the project	<p>Elaboration of economically efficient technology for the production of useful commodities such as PHA (biodegradable polymeric material), ethanol and others cellular metabolic products from different industrial and municipal waste materials.</p> <p>Evaluation of total microorganisms counts and specific groups (nitrogen fixing and phosphate - mobilization microorganisms, phenolic compound degraders) involved in the process of stabilization of the composting process as well as microorganism survival during the composting process.</p> <p>Investigation of the adaptation of microorganisms involved in composting process to high toxic substrate mixtures under different compost conditions.</p>

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