

PRESS RELEASE

BACWIRE PROJECT SET TO START

An European consortium coordinated by Universidad of Alicante will develop a microbial fuel cell

The 3-years project is financing by the EU

Alicante, October 30, 2009

The multidisciplinary European consortium BacWire (acronym for Bacterial Wiring for Energy Conversion and Bioremediation) has been kicked off on Thursday at University of Alicante. The aim of the project is to build up a new paradigm for the simultaneous cogeneration of energy and bioremediation using electro-active bacteria. Hence, the consortium will attempt to produce electro-active biofilms by using nanotechnology tools in order to remove organic matter present in wastewater whilst simultaneously producing clean electrical power.

These bacteria will be efficiently connected to a new nano-structured transducer developed for the purpose of producing microbial fuel cells with superior performance. Elucidation of mechanisms by which bacteria transfer electrons to solid electrodes is essential. Thus, it is prior to solve interfacial electrochemistry of both bacteria and isolated surface redox molecules for giving insights into the intriguing phenomena of bacterial electricity production.

The project relies on the convergence of the expertise of the participants in complementary disciplines such as biochemistry, microbiology, physics, electrochemistry, interfacial physical chemistry and spectroscopy, nanotechnology and electrochemical processing cell design engineering.

The collaborative Project is carried out by researchers from University of Alicante; University of Alcalá de Henares, Madrid, Spain; Liverpool University, UK; Bern University, Switzerland, and Materials Science and Technology Research Institute (INTEMA), Mar del Plata, Argentina.

The 3-years BacWire Project budget is € 3 million. This collaborative Project is financed by the 7th Framework Programme, the main financial tool through which the European Union supports all types of research activities carried out by different research bodies in trans-

national cooperation and aims to gain or consolidate leadership in key scientific and technology areas.