



LUCIDEON AND PARTNERS AWARDED €3,9M GRANT TO TRAIN INDUSTRY PHD RESEARCHERS TO DEVELOP ANTIBACTERIAL MEDICAL MATERIALS

Lucideon, the materials technology company, together with 9 European consortium partners, has been awarded €3.9m (£2.8m) grant by the European Commission to train industry PhD researchers for the development of drug-free antibacterial materials used for medical applications, such as wound care and implants.

Biomedical polymers have been widely used in combination with drugs in medical settings but a challenge has arisen to develop new materials that have an intrinsic antibacterial functionality. To meet this need, a new generation of professionals will be trained under the project 'Drug-Free Antibacterial Hybrid Biopolymers for Medical Applications (HyMedPoly)' which Lucideon is co-ordinating.

HyMedPoly will engage 15 young PhD researchers to create and implement new strategies to combat bacteria. Seven of these researchers will be jointly supervised by Lucideon together with two universities, Friedrich-Alexander-Universität Erlangen-Nürnberg and University of Southampton, the research institute, Fraunhofer Gesellschaft and industry partner Vornia Ltd.

The four-year long project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 643050. It forms part of the European Commission's initiative to develop European Industrial Doctorates with equal exposure to academics and industry, allowing them to combine research knowledge with business acumen.

HyMedPoly will offer a joint training programme at world class academic and industrial institutes, combining technical knowledge with hands-on training in state-of-the-art research projects related to key issues that determine the future therapies of antibacterial materials.

Dr Xiang Zhang, Royal Society Industry Fellow, Head of Medical Materials and Devices at Lucideon and co-ordinator of the HyMedPoly project said:

"This European Industrial Doctorates programme is a new initiative for training future professionals for industry. The unique advantage of the new training scheme is that industry is directly involved in supervising PhD projects together with universities so that young researchers can gain industry knowledge and experiences during their PhD study.

"This is the first time that an industry partner has co-ordinated a PhD training project to develop new biomaterials in the war against bacteria. Due to resistance of bacteria to drugs, infection has become one of the toughest problems in the medical world as there are hardly any effective antibiotics left in the fight against many pathogens. This project is the initial step in developing new therapies through a new combined technology using new hybrid inorganic and polymeric materials with antibacterial functionalities.

"The ultimate goal will be the development of highly-skilled professionals that will play a pivotal role in the production of advanced medical products for hospitals and personal health care, with the potential to enhance the UK and EU economy as well as contributing to the improvement of quality of life for all."

Lucideon will work collaboratively with nine other European consortium partners:

- University of Westminster, United Kingdom (Industry), Scientific Coordinator
- Politecnico di Torino, Italy (Academic partner)
- Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany (Academic partner)
- Vornia Limited, Ireland (Industry)
- University of Southampton, United Kingdom (Academic partner)
- Universitätsklinikum Knappschaftskrankenhaus Bochum, Germany (Medical partner)
- Tekniker, Spain (Research Institute)
- Eurescom, Germany (Industry)
- Fraunhofer Gesellschaft, Germany (Research Institute)

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About Lucideon

Lucideon is a leading international provider of materials development, testing and assurance.

The company aims to improve the competitive advantage and profitability of its clients by providing them with the expertise, accurate results and objective, innovative thinking that they need to optimise their materials, products, processes, systems and businesses.

Through its offices and laboratories in the UK, US and the Far East, Lucideon provides materials and assurance expertise to clients in a wide range of sectors, including healthcare, construction, ceramics and power generation.