



NAME: PROFESSOR IPSITA ROY

INSTITUTION : UNIVERSITY OF WESTMINSTER

COUNTRY : UNITED KINGDOM

Profile :

Professor Ipsita Roy is an expert in microbial biotechnology, natural biomaterials and their biomedical applications. She is currently a Professor at the Faculty of Science and Technology, University of Westminster, London. Ipsita was awarded the prestigious Inlaks Scholarship and the Overseas Research Students Award to study for her Ph.D. at the University of Cambridge.

During her time at Cambridge she was awarded the Churchill College Scholarship, the Lundgren Scholarship, Leche Trust Scholarship and the Cambridge University Philosophical Society Fellowship Award. Her postdoctoral work was at the University of Minnesota, USA, at the Bioprocess Technology Institute, where she worked on fatty acid biosynthesis.

Subsequently, Professor Roy taught at the Indian Institute of Technology, India, for four years as an Assistant Professor. During this time she worked actively on the production of biodegradable polymers from *Streptomyces*. Professor Roy has been at the University of Westminster since 2000 and leads the Applied Biotechnology Research Group. She has published over 100 papers in high 'Impact Factor' journals. She is an editor of the Journal of Chemical Technology and Biotechnology (JCTB) and was the special editor of an In Focus Issue of JCTB on Biodegradable polymers and Controlled Drug Delivery. She is on the BBSRC, EPSRC, NSERC, Canada, FWF, Austria and NSFC, China, ESF, MUIR grant-reviewing panels. Her work has been funded by the EPSRC, EU, DuPont and WESTFOCUS, London.

Professor Roy is currently the scientific coordinator of two large EU projects REBIOSTENT, worth 4.9 million Euros with 14 consortium members and HYMEDPOLY, worth 3.5 million Euros with 12 consortium members, She is also the work package leader of another large EU FP7 project, NEURIMP, worth 4.4 million Euros with 8 consortium members. All three projects involve the use of PHAs for medical applications, drug eluting biodegradable stents, nerve guidance conduits and antibacterial polymers.

Activities :

- Biomaterials
- Tissue Engineering
- Regenerative Medicine

Expertise on following materials:

- Polyhydroxyalkanoates
- Bacterial Cellulose
- γ -Polyglutamic acid

**Actual research domains concerning materials technology / Competences :**

- Production and purification of the materials listed above
- Processing of the above materials in to 2D and 3D structures
- Carrying out biocompatibility studies of the materials and structures
- In depth characterisation of the materials- chemical, mechanical and thermal

Available research infrastructure:

- Fermentation facility -2-70L
- Tensile testing-INSTRON
- DSC
- GPC
- GC-MS
- HPLC
- Microbial culture facility
- Animal cell culture facility

Coordinate address:

Institution : Faculty of Science and Technology, University of Westminster.

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