

Invited Speaker

Molly Stevens

Professor, Department of Materials and Research Director, Institute of Biomedical Engineering, Imperial College London, UK



Molly Stevens is currently Professor of Biomedical Materials and Regenerative Medicine, and Research Director for Biomedical Material Sciences at the Institute of Biomedical Engineering at Imperial College London, UK. She joined Imperial in 2004 after her postdoctoral training in the field of tissue engineering with Professor Robert Langer in the Chemical Engineering Department at the Massachusetts Institute of Technology, USA. Prior to this, she graduated from Bath University, UK with a first class honors degree in Pharmaceutical Sciences and was then awarded a Ph.D. in biophysical investigations of specific biomolecular interactions and single biomolecule mechanics from the Laboratory of Biophysics and Surface Analysis at the University of Nottingham, UK (2000). In 2009, she was awarded the Jean Leray Award from the European Society for Biomaterials; in 2007, the prestigious Conference Science Medal from the Royal Pharmaceutical Society; and in 2005, the Philip Leverhulme Prize for Engineering. She has also been recognized by the TR100, a compilation of top innovators under the age of 35 who are transforming technology and the world with their work. Her previous awards include the Ronald Belcher Memorial Lecture Award from the Royal Society of Chemistry (2000), as well as the Janssen Prize and the UpJohn Prize for academic excellence and research. She has a large and extremely multidisciplinary research group of students and postdoctoral fellows. Research in regenerative medicine within her group includes the directed differentiation of stem cells, the design of novel bioactive scaffolds and new approaches towards tissue regeneration. She has developed novel approaches to tissue engineering that are likely to prove very powerful in engineering large quantities of human mature bone for autologous transplantation, as well as other vital organs such as liver and pancreas, which have proven elusive with other approaches. This has led to moves to commercialize the technology (she is the co-founder of RepRegen - Winner of the 2009 ACES Pan-European Life Sciences Spin-Out Company of the Year - and InTiGen) and set up a clinical trial for bone regeneration in humans. In the field of nanotechnology, the group has current research efforts in exploiting specific biomolecular recognition and self-assembly mechanisms to create new dynamic nano-materials, biosensors and drug delivery systems.