



CREATING MICROENVIRONMENTS FOR TISSUE REGENERATION

- Speaker:** Elisabeth Engel,
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- When:** 4pm on Friday 1st of March 2019
- Where:** Cheyne Lecture Theatre, RCSI, 123 St Stephens Green, Dublin 2

Biomaterials have been used in regenerative medicine for years, but they have been mainly used as scaffolds to support and guide cells or as cell and signaling delivery carriers. Our research has focused in how the biomaterials interact with the host environment. We have determined that no biomaterial is inert and that all of them can affect cell behavior. Understanding how cells interact with the biomaterials and how the degradation products can activate metabolically the cells allows the creation of microenvironments that can induce cell reprogramming and activation of stem and progenitor cells.

The way how we can translate and transfer the technology into products will have a lot to do in how they are fabricated and how is the interaction with the cells and tissues.



Dr. Elisabeth Engel is full professor at the technical University of Catalonia. She did her Ph.D in bone metabolism diseases in medical School. She was awarded with a postdoc fellow from the Ministry of Science at the Technical University of Catalonia in Biomaterials for bone tissue regeneration. She is PI of the Biomaterials for Regenerative Therapies Group at the Institute for Bioengineering of Catalonia.

Her research interests include the preparation and design of materials and scaffolds for in vitro and in vivo fundamental studies, and a further focus is the provision of useful tools to assess mechanisms that govern cell behavior in regenerative medicine. She has published more than 95 papers in JRC journals and many invited lectures and got several awards, such as the technological research (Barcelona City Award). Her group conducts several transference and translational projects with pharma and biomedical device industry and participates actively in European projects.