PRESENTER INFORMATION

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BIOGRAPHICAL SKETCH

Dr Chiappini is Senior Lecturer in Nanomaterials and Biointerfaces at King's College London . His research combines nanotechnology, bioengineering and cell biology to develop nanomaterials to interrogate and manipulate cells. His research has been awarded over £2.5M in grants including the prestigious ERC Starting Grant. In 2021 Dr. Chiappini was recognised as emerging biomaterial scientist by the Royal Society of Chemistry. He was Marie Curie Fellow and Newton International Fellow at Imperial College London from 2011 until 2016, and holds a doctorate from the University of Texas at Austin. Dr. Chiappini authored more than 40 publications with over 5000 citations and three international patent applications.

TITLE: Porous silicon for advanced therapies

ABSTRACT

Porous silicon is a versatile biomaterial underpinned by tailorable physical, chemical and bioactive properties bestowed by advanced manufacturing processes. This talk will first present how the lithiation of porous silicon nanowires provides a tailored ion release which promotes regeneration of complex soft/hard tissue interfaces. It will then explore porous silicon nanoneedles as a nonperturbing platform for molecular diagnostics as well as cell and gene therapy.