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The power of bespoke biocompatible and biodegradable hydrogels

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Come along to find out how PeptiGel Design products can support your research PeptiGelDesign has developed a family of self-assembling peptide based hydrogel that mimics the cell microenvironment and provides a natural physiological environment for 3-dimensional (3D) cell culture. In addition to its standard formulation PeptiGelDesign also offer a design service, which allows it to deliver hydrogel with tailored properties. These systems have tunable mechanical strength to suit a range of different cell types and can be functionalization with biological epitopes or formulated with small or large molecules such as growth factors. Example areas of use include 3D cell culture, stem cell culture and directed differentiation. These products have also great potential for applications in the regenerative and medical field as they are animal free, biocompatible and biodegradable. They can therefore potentially be used as primary packaging for the *in vivo* delivery of drugs, cell or other biological factors. Our hydrogels can be designed to be injectable, sprayable and are naturally mucoadhesive systems. The unique shear thinning properties of our technology platform enables today's and tomorrow's Life Sciences and Biomedical sectors as a real alternative to animal/plant derived hydrogels as being biocompatible, biodegradable, compatible with cell staining/cell extraction-qPCR and additive manufacturing. To summarize the material design platform developed by PeptiGelDesign allows us to offer bespoke hydrogels with tailored properties to suit the needs of our customers.

Biography

Guillaume Saint-Pierre is the Chief Executive Officer (CEO) and Cofounder of PeptiGelDesign Limited. He was awarded a PhD in ceramic synthetic receptors for sensing applications at Cranfield University. He then joined a Cambridge based startup where he has developed a series of micro electro-analytical devices for critical healthcare applications. He moved to Spain and joined University Hospital of Toledo, Inspiralia S L, where he worked on spinal cord injury repair and cardiovascular replacement therapies. During this time, he developed and led the Material Department of Inspiralia where he has created and commercialised IPs for SMEs and Les.

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