allied academies

Annual Congress on

Cell Science, Stem Cell Research & Pharmacological Regenerative Medicine

November 29-30, 2017 | Atlanta, USA

Biogelx: Designer gels for cell culture and bioprinting

Elia Lopez-Bernardo, Eleanore Irvine, Rein Ulijn and **David Lightbody**
Biogelx Inc., USA

Biogelx is a biomaterials company that designs tunable peptide hydrogels, offering artificial tissue environments to cell biologists for a range of cell culture applications. The hydrogels are highly tunable, cell-matched biomaterials, capable of revolutionizing the way cell biologists control and manipulate cell behavior in the laboratory. This is of direct relevance to fundamental cell research, including the study of stem cell biology and disease models within academic and medical labs. Biogelx's hydrogels also have a potentially dramatic impact on harnessing the capabilities of 3D bio-printing; where they are being used as the 'bio-ink' in the printer. Biogelx offers a range of hydrogel platforms that are three dimensional (3D), 99% water and have the same nanoscale matrix structure as human tissue. This gives control back to the cell biologist, as the gels can be tuned to meet the needs of any given cell type. This presentation showcases the underlying chemistry of Biogelx's peptide hydrogels, highlighting the range of chemical and mechanical modifications that can be implemented within the gels, in order to address a wide range of cell based applications. Some examples of academic and industrial collaborative work shall also be presented, including how the gel tunable properties, can be used to influence the differentiation pathway of stem cells.

e: elia.lopezbernardo@biogelx.com