Manchester BIOGEL

Manchester BIOGEL is a leader in the design and manufacture of biologically relevant synthetic peptide hydrogels that have the potential to deliver life changing therapies.

PeptiGel® features

Animal free
100% ethical, synthetic, reproducible materials to enable translational research

Biocompatible
Inherently biocompatible and biodegradable to translate your research to the clinic

Ready to use
No gel preparation required, simply add your cells and get results

Chemically defined
No batch to batch variation. Contains only what you need to get results

Modular
We can tailor the mechanical and functional environment to suit your cell needs

Printable, injectable and sprayable
Shear thinning properties provide flexible handling and viable clinical delivery

PeptiGels® in action

Regenerative medicine

PeptiGels® are ECM mimics tailored to enable the growth of all human tissue types, e.g. they have been used as a delivery platform for human derived adipose stems cells for peripheral nerve injury.

Faroni, A., et al. Manuscript in preparation.

Delivery vehicles

Injectable and sprayable PeptiGels® can be tailored to allow control over the targeting and kinetics of therapeutic release, e.g. to local mucosal surfaces, to solid tumours and for endometriosis.

Tang, C., et al. Int. J. Pharm. 2014;465:427-435.

Medical devices

PeptiGels® can be incorporated into, or coated onto, a medical device, for e.g. embedding within a stitchable patch to deliver cardiac progenitor stem cells for cardiac repair.

Kumar, D., et al. Adv. Funct. Mater. 2017;12:1702424.

3D bioprinting

A number of groups have used PeptiGels® to bioprint cells. Raphael *et al.* successfully printed mammary epithelial cells with controlled spatial distribution and found that these cells remained viable and began to proliferate.

Raphael, B., et al. Mater. Lett. 2017;190:103-106.

Manchester BIOGEL

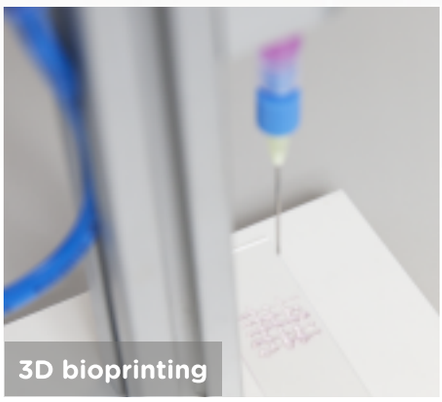
www.manchesterbiogel.com

Manchester BIOGEL

PeptiGel®	Alpha 1	Alpha2 - RGD	Gamma 2	Alpha 2	Alpha 4
G' (kPa)	5	10	5	10	1
Charge	Neutral	Neutral	Neutral	Medium	High

We also offer a **bespoke design service** to **create Peptigels** with mechanical properties and functionalities **specific to your research needs**.

Examples include:
- RGD
- IKVAV
- YIGSR
- Fluorescent label FITC
- Graphene oxide


3D bioprinting


3D cell culture