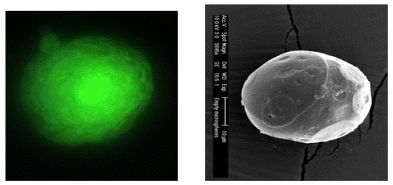
College of Engineering
McArthur Engineering Annex

BIOMATERIALS

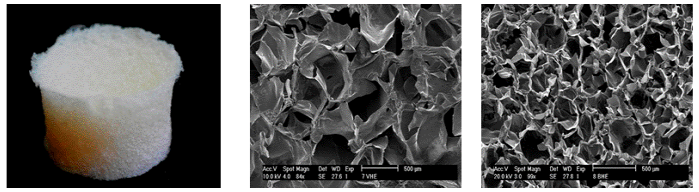
Fotios M. Andreopoulos, Ph.D.

Our research work is focused on the development of “smart” biomaterials for tissue engineering applications. Areas of interest include angiogenesis, cutaneous repair, bone/cartilage regeneration and vascular biology.

Microsphere Fabrication for Drug Delivery

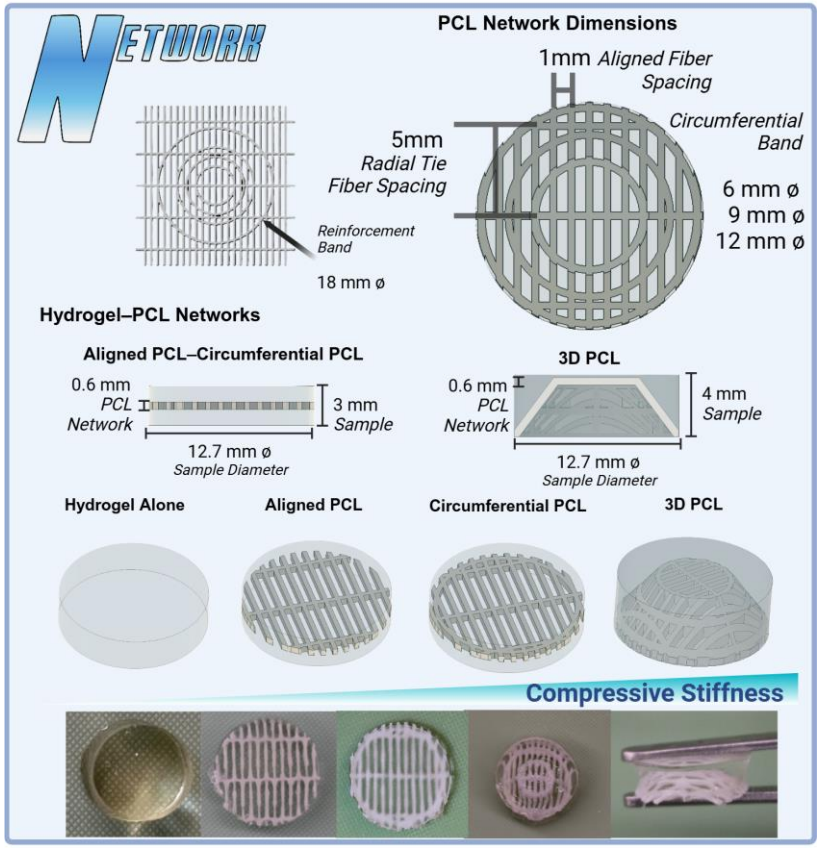


Tissue Engineering Scaffolds



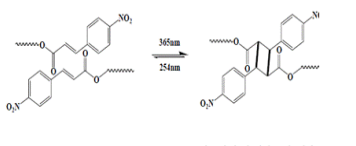
Gelatin (1wt % GA) @ -20 °C *Gelatin (1wt % GA) @ -20 °C* *gelatin-PLG, EDC crosslinking @ -20 °C*

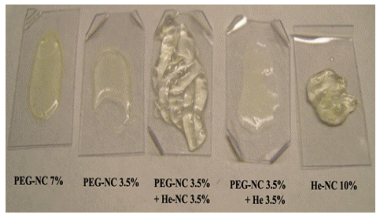
Hybrid 3D networks



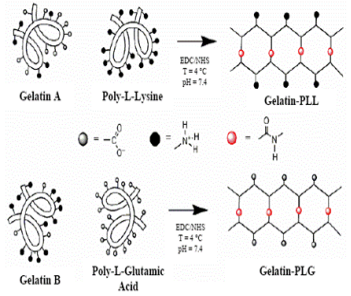
Bioactive Hydrogels

Photosensitive Hydrogels

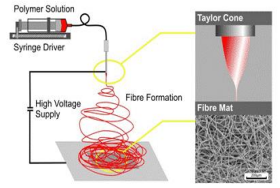


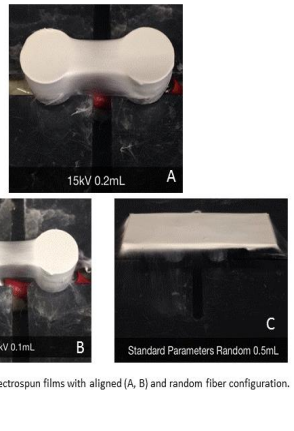


Ionic Hydrogels

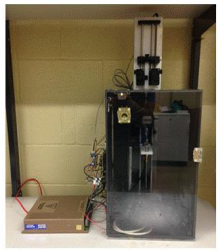


Electrospun Scaffolds





Pictures of electrospun films with aligned (A, B) and random fiber configuration.



Setup for *Model 2* of our custom made electrospinning apparatus.