



University of Central Florida

Technology Available for Licensing

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Synthetic Biodegradable Materials for Biomedical Applications

More than 8 million surgical procedures performed each year involve replacement organs or tissues and more than 10 million Americans have at least one medical implant. Many of these implants are made from classic materials such as stainless steel, chromium, ceramics, plastics, and other metal alloys. These materials often cause the immune system to tag the implant as a foreign body thereby resulting in an unintentional immune response. Biocompatible materials which reduce or remove this response are needed.

Technical Details

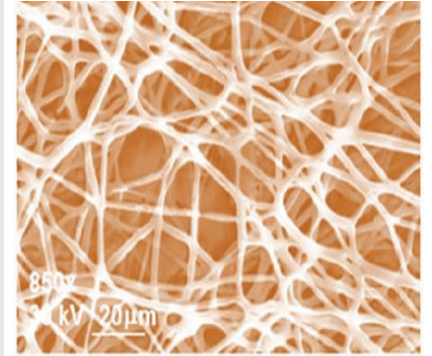
UCF inventors developed homogeneous nanofibers of pure synthetic polypeptides. These materials have physical, chemical, and biological properties that make them advantageous for replacing traditional materials in medicine and tissue engineering. The polypeptide structure offers not only the advantage of a reduced immune response but also is biodegradable when combined with the proper enzymes.

Looking for Partners

Looking for partners to test and commercialize this technology

UCF Inventors

Qun Huo, Ph.D.; Hui Chen, Ph.D.; Saiful Khondaker, Ph.D.; Harish Muthuraman, Ph.D.; Lei Zhai, Ph.D.; Jianhua Zou



Electrospun fibrils according to an embodiment of the present technology

Benefits

- Biodegradable
- High tensile strength

Applications

- Surgical structures
- Wound dressings
- Tissue engineering
- Medical textiles

Tech Field

Biomaterials

Keywords

biocompatible, tissue engineering, biodegradable, nanofibers, homogenous

US Issued Patents

7,951,850 B2

8,709,292 B2

If you or your company are interested in this opportunity, Contact:

Brion Berman | 407.882.0342 | Brion.Berman@ucf.edu | Tech ID# 30990, 32068

UCF Office of Technology Transfer | 12201 Research Parkway, Suite 501, Orlando, FL 32826