FORMATION OF POROUS SCAFFOLDS OF GROWTH FACTOR SEQUESTING HYDROGELS BY CRYOGELATION

Tech ID: 33045 / UC Case 2023-084-0

PATENT STATUS

Patent Pending

BRIEF DESCRIPTION

Freeze-dried, non-hydrated scaffolds that are porous and contain bioactive components are advantageous for tissue engineering and regenerative medicine purposes. UCB researchers have developed a process to transform certain hydrogels into dehydrated scaffolds by cryogelation. These scaffolds provide greater ease of long-term storage and surgical insertion, while maintaining the polymeric structure required for cellular infiltration, growth, and tissue formation.

Other biologics such as drugs or exosomes can survive this processing and be retained in the scaffold. This invention serves to generate a powerful device for tissue engineering research, as well as for regenerative medicine to treat patients with significant loss of tissue injuries

SUGGESTED USES

- tissue engineering
- regenerative medicine

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INVENTORS

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OTHER INFORMATION

CATEGORIZED AS

- **Medical**
  - Research Tools
  - Therapeutics

RELATED CASES

2023-084-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Universal Barrier Coating for PDMS Organ-on-a-Chip Devices
- Growth Factor Sequestering and Presenting Hydrogels
- Isolation Of Cardiac Stem/Progenitor Cells Expressing Islet-1
- Bioinspired Hydrogels for the Treatment of Volumetric Muscle Loss Injury

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