



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Carlos A. García-González

Type (Academic or Industrial): Academic

Country: Spain

Leadership position in the COST: MC-member (Spain)

Working Group in which you are involved: WG1&4

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Laboratory/Company: I+D Farma, Pharmaceutical Technology Dept, University of Santiago de Compostela

Laboratory/Company info (limited to 400 characters):

Laboratory specialized in the production and processing of drug products and medical devices with special focus on the following research domains:

- Aerogel-based Materials for Biomedical Applications
- Scaffolds for Regenerative Medicine
- Medical Devices with Functional Surfaces
- Sterilization techniques
- Technological and Physiological Barriers-overcoming Nanocarriers
- Supramolecular Gels
- Nanostructured Recognitive Cross-linked Gels

Link to the home page of the Laboratory/Company: <http://www.idfarmausc.es/en>

Fields of expertise (limited to 400 characters):

- Supercritical fluids
- Aerogels
- 3D-bioprinting
- Pharmaceutical technology
- Process engineering

5 Main publications or patents:

- System for the administration of biological active substances prepared by foaming using compressed gases or supercritical fluids. ES2546566(B2) patent, PCT/ES2016/070528. Priority date: 23.July.2015
- Vancomycin-loaded chitosan aerogel particles for chronic wound applications, Carbohydrate Polymers 204 (2019) 223-231
- From the printer to the lungs: Inkjet-printed aerogel particles for pulmonary delivery, Chemical Engineering Journal 357 (2019) 559-566.
- Antimicrobial Properties and Osteogenicity of Vancomycin-Loaded Synthetic Scaffolds Obtained by Supercritical Foaming, ACS Applied Materials & Interfaces 10 (2018) 3349-3360



- Synthetic scaffolds with full pore interconnectivity for bone regeneration prepared by supercritical foaming using advanced biofunctional plasticizers. *Biofabrication*, 9 (2017) 035002

Collaborations:

International network on process engineering and biomedical applications

Facilities:

- Supercritical fluid equipment
- Multi-head 3D-bioprinter
- Physicochemical and biological evaluation of materials for biomedical applications