



BROKERAGE FOR HEALTH

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Regeneration of Articular Cartilage and Other Tissues

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Project ideas

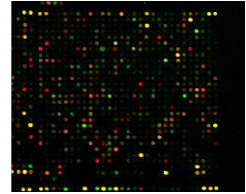
1. Cartilage Tissue Engineering Using MSCs or iPSCs

- ✓ Development of new therapeutic strategies for osteochondral lesions in trauma or osteoarthritis
- ✓ Impact of ion channels



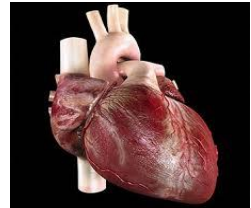
2. Biomarker Detection for Monitoring of Cartilage Tissue Regenerative Potential

- ✓ Development of a tool for diagnosis of osteochondral lesions and their relation to comorbidities



3. Stimulation of Regenerative Capacities of Cardiac Tissue

- ✓ Development of new therapeutic strategies for cardiac failure, cardiospheres



4. Stimulation of Regenerative Capacities of Lung Tissue

- ✓ Lung tissue models for COPD and environmental pollution



Company expertise



- isolation and characterization of primary mesenchymal (stromal) stem cells (MSC) from different adult human tissues, development of iPSC lines, chondrogenesis studies, tissue engineering;
 - chondrocytes, chondrons and cartilage explants from OA cartilage, cartilage degradation studies, cocultures, OA models in vivo;
 - Ca²⁺ channels, mechanotransduction;
 - cardiomyocytes, cardiomyogenesis studies
 - COPD, lung tissues
 - Human biomonitoring
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- ✓ We have been involved in FP7 project ADIPOA, related to the development of Stem Cell Therapy for Osteoarthritis; Development of Cardiac Biopacemaker project;
 - ✓ Currently: Analysis of Mechanotransductive Ca²⁺ Channels; Human Biomonitoring HBM4EU, H2020; etc.

Topic

- SC1-BHC-07-2019: Regenerative medicine: from new insights to new applications
- SC1-BHC-02-2019: Systems approaches for the discovery of combinatorial therapies for complex disorders
- SC1-BHC-28-2019: The Human Exposome Project: a toolbox for assessing and addressing the impact of environment on health

Keywords

(cartilage, stem cells, chondrocytes, cardiac cells, lung cells)
(osteoarthritis, metabolic and cardiac disorders, hypertension, copd)



Contact details

Thank you!

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