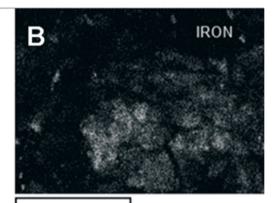
ISSN: 2158-7027 Volume 8, Number 2, April 2017



# Journal of Biomaterials and Nanobiotechnology



600 µm



600 µm

ISSN: 2158-7027

www.scirp.org/journal/jbnb

# **Journal Editorial Board**

ISSN: 2158-7027 (Print), 2158-7043 (Online) http://www.scirp.org/journal/jbnb

#### Editor-in-Chief

Prof. Bouzid Menaa

Fluorotronics, Inc., USA

## **Editorial Board**

Prof. Adnane Abdelghani Prof. Michael H. Bartl Prof. Pierre Basmaii Prof. Helmut Cölfen Dr. Zeki Candan Prof. Carlo Maria Carbonaro Prof. Roman Dembinski Prof. Ryad Djeribi **Prof. Paul Ducheyne** Prof. Plinio Innocenzi Prof. Ali Khademhosseini **Prof. Beate Koksch** Prof. Junbai Li **Prof. Song Li Prof. Xiaodong Li Prof. Yang Ling Prof. Peng Liu Prof. Song Liu Prof. Jacques Livage** Prof. Stephen Mann **Prof. Wolfgang Meier Prof. Farid Menaa Prof. Yuezhong Meng** Prof. Enzo Montoneri Prof. Yoshihiko Murakami Prof. Chandrabhas Narayana Prof. Loredana Elena Nita Prof. Faik Nuzhet Oktar **Prof. Elena Parfenyuk** Prof. Murugan Ramalingam **Prof. Christian Serre** Prof. Masahide Takahashi Prof. Maria Vallet-Regi Prof. Erwin A. Vogler **Prof. Christian Weinand** Prof. Raghvendra S. Yadav Prof. Murali M. Yallapu

National Institute of Applied Science and Technology, Tunisia University of Utah, USA Sao Paulo University, Brazil University of Konstanz, Germany Istanbul University, Turkey University of Monserrato, Italy Oakland University, USA Biofilms and Biocontamination of Materials Laboratory, Algeria University of Pennsylvania, USA Università di Sassari, Italy Massachusetts Institute of Technology, USA Free University of Berlin, Germany Chinese Academy of Sciences, China University of California, USA University of South Carolina, USA Chinese Academy of Sciences, China Lanzhou University, China University of Manitoba, Canada College de France, France University of Bristol, UK University of Basel, Switzerland Fluorotronics, Inc., USA Sun Yat-sen University, China University of Turin, Italy Tokyo University of Agriculture and Technology, Japan Jawaharlal Nehru Centre for Advanced Scientific Research, India "Petru Poni" Institute of Macromolecular Chemistry, Romania Marmara University, Turkey Russian Academy of Sciences, Russia Tohoku University, Japan Université de Versailles St-Quentin-en-Yvelines, France Osaka Prefecture University Sakai, Japan University Complutense of Madrid, Spain Pennsylvania State University, USA University Hospital Cologne-Merheim, Germany University of Allahabad, India Sanford Research, USA



# **Table of Contents**

# Volume 8 Number 2

# April 2017

Homogenized Porcine Extracellular Matrix Derived Injectable Tissue Construct with Gold Nanoparticles for Musculoskeletal Tissue Engineering Applications
S. E. Smith, C. L. Snider, D. R. Gilley, D. N. Grant, S. L. Sherman, B. D. Ulery, D. A. Grant, S. A. Grant125
Facile Method for the Synthesis of Copper Nanoparticles Supported on the Organoclay Material
M. F. Bambo, R. W. M. Krause, R. M. Moutloali144
Surface Perfluoroalkyl Chains Segregation: A Tool for Reducing

## Calcium Deposits in Medical Grade Poly(Methyl Methacrylate)

# Journal of Biomaterials and Nanobiotechnology (JBNB) Journal Information

#### SUBSCRIPTIONS

*Journal of Biomaterials and Nanobiotechnology* (Online at Scientific Research Publishing, <u>www.SciRP.org</u>) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates: Print: \$79 per issue. To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

#### SERVICES

Advertisements Advertisement Sales Department, E-mail: service@scirp.org

# Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA. E-mail: <u>sub@scirp.org</u>

#### COPYRIGHT

#### Copyright and reuse rights for the front matter of the journal:

Copyright © 2017 by Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY). <u>http://creativecommons.org/licenses/by/4.0/</u>

#### Copyright for individual papers of the journal:

Copyright © 2017 by author(s) and Scientific Research Publishing Inc.

#### Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

#### **PRODUCTION INFORMATION**

For manuscripts that have been accepted for publication, please contact: E-mail: jbnb@scirp.org

# **Call for Papers**



# Journal of Biomaterials and Nanobiotechnology

# ISSN: 2158-7027 (Print), 2158-7043 (Online) http://www.scirp.org/journal/jbnb

Journal of Biomaterials and Nanobiotechnology is an international, interdisciplinary, English-language publication of original contributions concerning studies of the preparation, performance, and evaluation of biomaterials; the chemical, physical, toxicological, mechanical, electrochemical and optical behavior of nanostructured materials for biotechnology applications. The goal of this journal is to keep a record of the state-of-the-art research and to promote study, research and improvement within its various specialties. With an open access publication model of this journal, all interested readers around the world can freely access articles online. Now we sincerely invite you to submit your research manuscript to JBNB.

## Subject Coverage

Journal of Biomaterials and Nanobiotechnology publishes original papers including but not limited to the following fields:

- Bio-encapsulation, bio-adsorption, controlled release of biomolecules (drugs, proteins, etc.), nutraceuticals
- Bio-induced nanopatterning, arrays of biological molecules, bioships
- Bio-MEMS
- Biomimetics and bio-inspired materials
- Biomolecules/surfaces interactions studies: biocompatibility of materials, biomolecules conformations, structure and dynamics at surfaces, molecular interactions, biological activity, thermodynamics and pharmacokinetics of nanostructured materials
- Development, design and synthesis of biocompatible biomaterials (sol-gel materials, glasses, ceramics, polymers, hydrogels, metal-organic frameworks, organic-inorganic hybrid materials, nanocomposites, combinations of synthetic materials and living cells and tissues, porous materials) as bulk and thin-films
- Molecular recognition techniques: biosensors
- Nanocapsules
- Nanocrystals and bio-crystallization processes
- Nanoparticles (fullerenes, carbon nanotubes, silica based nanoparticles...) as biomarkers and fluorescents tags for cell detection, imaging and drug delivery systems
- Nanostructured materials: micro- and nanofluidics
- Photo-induced species and structure conformations of biomolecules in biomaterials
- Self-assembly of biological molecules
- Theranostics and diagnostics tools: emerging techniques involved in bio-detection and analysis of individual biological molecules (imaging, spectroscopy, microscopy...)

We are also interested in: 1) Short-Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

#### **Notes for Intending Authors**

Your paper should not have been previously published or be currently under consideration for publication any place else. Submit your paper electronically through the JBNB online system. All papers are subject to peer review. After your paper has been accepted, you must sign a copyright transfer agreement with JBNB. Papers accepted for publication will be available free online. A fee will be charged to cover the publication cost. Manuscripts must be written in English.

#### Website and E-Mail

http://www.scirp.org/journal/jbnb E-mail: jbnb@scirp.org

## What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

## What is Open Access?

Art and Design Review

Advances in

dvances in Biologica hemistry Entomolog

Applied Mathematics

Engineering

nii ili a

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



Soft

Website: http://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org