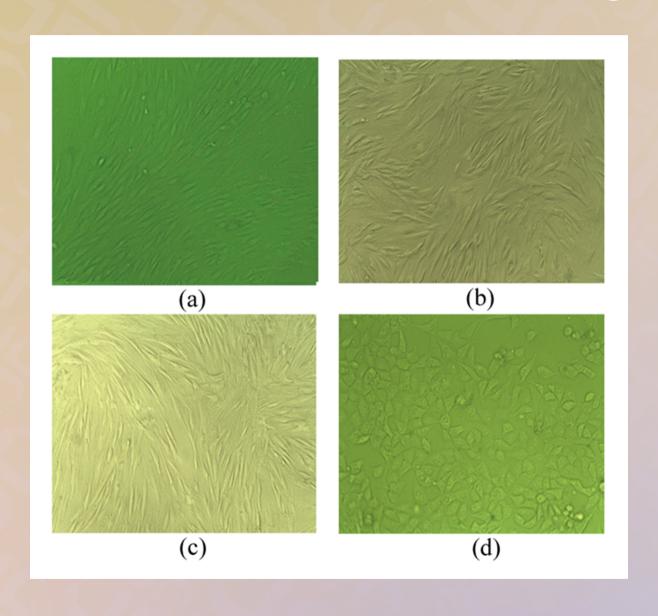




# Stem Cell Discovery





## **Journal Editorial Board**

ISSN: 2161-6760 (Print) ISSN: 2161-6787 (Online)

http://www.scirp.org/journal/scd

#### Editor-in-Chief

**Prof. Ming Zhan** Methodist Hospital Research Institute, USA

#### **Editorial Board (According to Alphabet)**

Dr. Fahd Al-Mulla

Prof. Sayed Amin Mohamed Amer

Dr. Anand Anbarasu

Prof. Jean-François Beaulieu Dr. Kenneth Richard Boheler

Dr. Kenneth Richard Bohel Dr. Dean J. Burkin

Dr. Arvind Chhabra

**Dr. Robert Paul Coppes** 

Prof. Francesco Filippini

Dr. Nicholas R. Forsyth

Dr. Umberto Galderisi

Dr. Jian-Xin Gao

Dr. Pantelis Georgiades

Prof. Antonio Giordano

Dr. Jonathan R. Keller

Dr. Hitoshi Komuro

Prof. Jong Eun Lee

Dr. Anskar Yu-Hung Leung

Dr. Yonghe Li

Prof. Guanghui Liu

Dr. Didier Merlin

Dr. Eran Meshorer

Dr. Chiara Mondello

Prof. Tarik Möröy

Dr. Janet L. Paluh

Dr. Janet L. Palun Dr. Cesare Patrone

Dr. Elias A. Said

Prof. Åke Sjöholm

Prof. Jin Tao

**Dr. Stavros Taraviras** 

Dr. Christian Templin

**Prof. Marta Tesone** 

Dr. Kohichiro Tsuji

Dr. Yigang Wang

Prof. Guozhi Xiao

Prof. Masayoshi Yamaguchi

Kuwait University, Kuwait

Cairo University, Egypt

VIT University, India

Université de Sherbrooke, Canada

National Institutes of Health, USA

University of Nevada School of Medicine, USA

University of Connecticut Health Center, USA

University of Groningen, The Netherlands

University of Padua, Italy

Keele University Medical School, UK

Second University of Napoli, Italy

The Ohio State University, USA

University of Cyprus, Cyprus

University of Siena, Italy

National Cancer Institute-NIH, USA

Lerner Research Institute, USA

Yonsei University, South Korea

The University of Hong Kong, China

Southern Research Institute, USA

Chinese Academy of Sciences, China

Emory University, USA

The Hebrew University of Jerusalem, Israel

Institute of Molecular Genetics, Italy

Université de Montréal, Canada

College of Nanoscale Science and Engineering, USA

Karolinska Institute, Sweden

Montreal University, Canada

Karolinska Institute, Sweden

Soochow University, China

University of Patras, Greece

University Hospital Zürich, Switzerland

University of Buenos Aires, Argentina

University of Tokyo, Japan

University of Cincinnati, USA

University of Pittsburgh School of Medicine, USA

Emory University School of Medicine, USA



### **Table of Contents**

Volume 4	Number 4	October 2014
A Review on	the Biology of Cancer Stem Cells	
M. Atena, A.	. M. Reza, G. Mehran	83
	Potential of Mesenchymal Stem Cells and Hematopoietic Stem Cells again Chromosomal Abnormalities in Experimental Rat Liver Fibrosis	inst
R. H. Ahmed	I, N. K. Roshdy, H. E. Saleh, M. I. Aref, N. M. Hassan, N. R. Mohammed	90
	on of Mesenchymal Stem Cells into Hepatocyte-Like Cells by Autologous S ncy Ablation of Liver Tumor	Gerum after
Y. Yang, X. C	hen, T. Wu, X. Xu, G. Cao, H. Li, Y. M. Li	99
In Pursuit of I	Porcine Pluripotent Stem Cells for Autologous Cell Therapy	
V. Verma, A.	. Mehta, S. Pal, M. Kumar, B. Singh, A. Kumar, S. Gautam	107
Response Pro Dental Follicle	oliferative Capacity of Undifferentiated Stem Cells of Obtained Human Ac e	lult
I K H do C	arvalho A V P de Araujo M G L da Silva R A N Laiso D A Maria	125

#### Stem Cell Discovery (SCD)

#### **Journal Information**

#### SUBSCRIPTIONS

The *Stem Cell Discovery* (Online at Scientific Research Publishing, <a href="www.SciRP.org">www.SciRP.org</a>) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$69 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: <a href="mailto:sub@scirp.org">sub@scirp.org</a>

#### **SERVICES**

#### Advertisements

Advertisement Sales Department, E-mail: <a href="mailto:service@scirp.org">service@scirp.org</a>

#### Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

#### **COPYRIGHT**

#### COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2014 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

#### COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright  $\ensuremath{\mathbb{Q}}$  2014 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: scd@scirp.org

# **Call for Papers**

## **Stem Cell Discovery**

ISSN 2161-6760 (Print) ISSN 2161-6787 (Online) http://www.scirp.org/journal/scd



**Stem Cell Discovery** (SCD) is an international journal dedicated to the latest advancement of stem cell discovery. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of stem cell discovery. All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy.

#### **Editor-in-Chief**

Prof. Ming Zhan

Methodist Hospital Research Institute, USA

#### **Editorial Board**

Dr. Fahd Al-Mulla Prof. Sayed Amin Mohamed Amer Dr. Anand Anbarasu

Prof. Jean-François Beaulieu Dr. Kenneth Richard Boheler

Dr. Dean J. Burkin
Dr. Arvind Chhabra
Dr. Robert Paul Coppes
Prof. Francesco Filippini
Dr. Nicholas R. Forsyth
Dr. Umberto Galderisi

Dr. Umberto Galderisi Dr. Jian-Xin Gao Dr. Pantelis Georgiades Prof. Antonio Giordano Dr. Jonathan R. Keller Dr. Hitoshi Komuro Prof. Jong Eun Lee Dr. Anskar Yu-Hung Leung Dr. Yonghe Li Prof. Guanghui Liu Dr. Didier Merlin

Dr. Eran Meshorer Dr. Chiara Mondello Prof. Tarik Möröy Dr. Janet L. Paluh Dr. Cesare Patrone Dr. Elias A. Said Prof. Åke Sjöholm Prof. Jin Tao Dr. Stavros Taraviras

Dr. Stavros Taraviras Dr. Christian Templin Prof. Marta Tesone Dr. Kohichiro Tsuji Dr. Yigang Wang Prof. Guozhi Xiao

Prof. Masayoshi Yamaguchi

Stem Cell Discovery, a peer reviewed journal, provides a forum for prompt publication of original investigative papers and concise reviews. It will include all the primary discoveries from stem cell basic and translational research, specifically including the fields but not limited as the follows:

#### a) Fields:

- Stem Cell and Diseases
- Stem Cell Development and Differentiation
- Stem Cell Therapy
- Tissue Regeneration

b) All types of stem cells: Adult Tissue Stem Cells (ATSC); Embryonic Stem Cells (ESC); Germline Stem Cells (GSC); Inducible Stem Cells (ISC)

c) Various organisms: from insects to mammalian

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**

Submitted papers should not be previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. For more details, please access the website.

E-mail: scd@scirp.org

#### Website and E-Mail

http://www.scirp.org/journal/scd

#### 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?

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





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