

Differentiation

 Editor-in- Chief: Eero Lehtonen

Special Issue on Stem Cells

Guest Editors: Stephen Sullivan and Gabriela Durcova-Hills

Objectives:

Mouse pluripotent stem cells have, to date, been used primarily as tools for introducing transgenic alteration into the germline. Increasingly, however, pluripotent stem cells (both mouse and human) are being used to interrogate epigenetic changes associated with fate decisions and, more generally, for studying aspects of development and disease *in vitro*. This is particularly useful in human where primary patient material is rare. Since the advent of induced pluripotent stem cell (iPS) technology, the ease with which disease specific pluripotent stem cells can be generated has encouraged a large number of scientists to enter this field of research. The focus of the field is rapidly moving away from the derivation of such cells and rather toward using functional differentiated progeny to ask fundamental biological questions. The journal *Differentiation* is thus uniquely poised to deal with this new age of stem cell biology. To illustrate this fact, the editorial board calls for papers for the upcoming special issue centred on 'Differentiation and stem cells'.

This issue will also feature extended contributions from the International Meeting: 'Human pluripotent stem cells - interrogating disease and development' which will be hosted in Dublin, Ireland, April 2009.

Topics:

Papers will be selected depending on their originality, quality, and relevance to the theme.

Topics to be covered by this special issue include, but are not limited to, the following:

- Epigenetics associated with differentiation and nuclear reprogramming
- Molecular networks underpinning pluripotency
- Directed differentiation of stem cells into functional differentiated derivatives
- Characterization of induced pluripotent (iPS) cells and their differentiated progeny
- Disease modeling using stem cells and their differentiated progeny
- Drug screening using stem cells and their differentiated progeny
- Germ line development
- The influence of the niche: Tissue engineering/Cell replacement therapy/Engraftment studies using stem cell derivatives
- Regulation, funding and long term strategy for stem cell research worldwide



Submission Information:

All manuscripts and any supplementary material should be submitted via the journal's online submission and peer review systems at <http://ees.elsevier.com/diff>. Follow the submission instructions given on this site. Please select the article type as "SPECIAL ISSUE: *Stem Cells*"

Abstracts should be emailed to the Guest Editors, a week before the full manuscript submissions deadline. All manuscripts should be compliant with the journal's submission guidelines. Please refer to the following site: (http://www.elsevier.com/wps/find/journaldescription.cws_home/717204/authorinstructions)

Manuscripts must not have been published previously or be currently under consideration for publication in any other journals or conferences. Significant extensions to substantive papers published in conferences are also welcome, provided that the editors are made aware of the previous publications.

Accepted authors will receive:

- PDF proof
- Copy of special issue in print
- No page charges or submission charges
- Free color in article (online and in print)
- Promotion of issue via HTML emailing

Important Dates:

Abstract (email to guest editors):

Firm Deadline for Author Submission: **30 January 2009**

Decision to Authors: April 30th 2009

Revision due: June 30th 2009

Rerevision (if necessary): 15th August 2009

Final Decision: 15th September 2009

Publication of issue: 30th September 2009 (subject to Differentiation editorial calendar).

Contact information:

Stephen Sullivan, Leiden University Medical Center, NL sullivanlab@gmail.com
Gabriela Durcova-Hills, g.durcova-hills@gurdon.cam.ac.uk