

Welcome to the Journal of Tissue Engineering and Regenerative Medicine

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Journal of Tissue Engineering and Regenerative Medicine

Welcome to the journal and some history

Welcome to the new *Journal of Tissue Engineering and Regenerative Medicine*! It is, believe me, with great pleasure and some emotion that I write these words. It has been a long time since I, with some colleagues and collaborators, recognized the need for having a strong new journal in the field of tissue engineering, regenerative medicine, stem cells and biomedical materials. The first discussions on this took place, if I remember it well, in 2002. When we applied to create the European Network of Excellence (NoE) on Tissue Engineering – EXPERTISSUES (<http://www.expertissues.org>) – we included as one of the main goals and deliverables the creation of a new international journal in the field of tissue engineering and regenerative medicine. The NoE was funded, in a very competitive selection process, by the Sixth Framework program (FP6) of the European Commission (EC), being the only European network of excellence in the field of tissue engineering. We all immediately agreed that a new journal, in this very competitive and rapidly evolving area, would need a main publishing house supporting it. The EXPERTISSUES project started in October 2004. The first proposal to John Wiley & Sons Ltd was made in late 2005, we reached agreement in April 2006, and now here we are, fully committed to making this journal a great success!

All the research team leaders of EXPERTISSUES (from 20 Institutions in 13 countries), which I have the pleasure to coordinate, are members of the Editorial Board of the journal. This initial informal connection of the journal to the NoE will help to ensure a steady flow of good papers that is so important to launching a new journal, but it must be stressed that the journal is fully international, as can easily be seen from the composition of the Editorial Board.

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The Editorial Board

The journal has a strong senior editorial board composed of four very active scientists, whose work is of exemplary quality and with complementary expertise. I come from a biomaterials and scaffolds background and my multidisciplinary group spans from materials, to biological approaches, to *in vitro* and *in vivo* tests. I am the CEO for the European Institute of Excellence in Tissue Engineering and Regenerative Medicine Research.

As Editor-in-Chief, I am supported by three renowned Associate Editors. Prof. Sam I. Stupp from Northwestern University needs no introduction being one of the most recognized and established Professors in the field of Regenerative Medicine. He is presently the Board of Trustees Professor of Science, Chemistry and Medicine and Director of the Institute for BioNanotechnology in Medicine at Northwestern University, Chicago, USA. Dr. Hajime Ohgushi is the Director of the Tissue Engineering Research Group at the Research Institute for Cell Engineering (RICE) of AIST (Advanced Institute for Science and Technology), in Osaka, Japan. Although still quite young, he is one of the most recognized scientists in Japan in the field of clinical applications of stem cells and tissue engineering. Finally, Prof. Anthony Atala is one of the world leaders in the field of tissue engineering and regenerative medicine. As the Director of the Wake Forest Institute for Regenerative Medicine (one of the main initiatives in regenerative medicine in the USA) he is an international leader in the translation of scientific discovery into clinical therapies.

The Editorial Board comprises the majority of the most dynamic and active researchers in all the fields relevant to the journal. Members were selected based on an evaluation of the scientific production, in the last few years, of the researchers working in the field. Their excellence, multidisciplinary, dynamism, and ambition are perfectly suited to our aims for this journal. In many cases the members of the Editorial Board are members of the directing boards of international societies, which will allow us to stay in touch with the needs of each aspect of the community. Since the *Journal of Tissue Engineering and Regenerative Medicine* aims to serve the

entire multidisciplinary community in this area, it will not be forming affiliations to any specific scientific society. Rather, we will offer reduced subscription rates as a benefit to the members of any society that wishes us to do so.

Aims and scope and coverage

The *Journal of Tissue Engineering and Regenerative Medicine* publishes articles on topics relevant to the development of therapeutic approaches that combine stem or progenitor cells, biomaterials and scaffolds, growth factors and other bioactive agents, and their respective constructs. All papers should deal with research that has a direct or potential impact on the development of novel clinical approaches for the regeneration or repair of tissues and organs.

The journal is multidisciplinary, covering the combination of the principles of life sciences and engineering in efforts to advance medicine and clinical strategies. It focuses on the use of cells, materials, and biochemical/mechanical factors in the development of biological functional substitutes that restore, maintain or improve tissue or organ function. The *Journal of Tissue Engineering and Regenerative Medicine* publishes research on any tissue or organ and covers all key aspects of the field, including the development of new biomaterials and processing of scaffolds; the use of different types of cells (mainly stem and progenitor cells) and their culture in specific bioreactors; studies in relevant animal models; and clinical trials in human patients performed under strict regulatory and ethical frameworks. Manuscripts describing the use of advanced methods for the characterization of engineered tissues are also of special interest to the journal readership, and emphasis will also be given to the development of new materials and scaffolds and to the use of different types of stem and progenitor cells and pathways for controlling their differentiation. Typically, papers presenting the design, development or refinement of biomaterials or scaffolds will only be considered when these have been tested for their ability to support cellular attachment/interaction and/or growth, development and differentiation. With regard to ethical considerations, human investigation and animal experiments must always have local ethics committee approval and must meet relevant national and international ethical standards.

In fact, we are aiming for a readership of cell and molecular biologists, materials and biomaterials scientists, biomedical engineers, chemists, medical researchers, clinicians and surgeons specialising in chronic and degenerative diseases, on cell therapies and trauma surgery. We foresee that the journal will incorporate the fields of biomaterials, stem cells, drug delivery, biotechnology, nanomedicine, tissue engineering and regenerative medicine.

The scope of TERM includes, among others, the following not so usual topics:

- Design of hybrid materials, in the sense of cell-material constructs

- Integrative knowledge on the interactions between cells and materials
- Characterization of the properties of systems designed for regenerative medicine
- Use of combinatorial approaches to design for regenerative medicine strategies
- Cell biology in understanding the biological response to materials
- Design of biomaterials and scaffolds to achieve specific functionalities
- In vivo response to multifunctional constructs

Other relevant topics include:

- Interactions between cells and constructs
- Surface modification technologies
- *In vitro* and *in vivo* approaches
- Controlled/sustained release strategies
- Development of carrier systems
- Nanotechnology and/or non-invasive approaches
- Smart systems, including self-assembly materials
- Cell types, manipulation of cells and bioreactors

Types of articles to be published

Journal of Tissue Engineering and Regenerative Medicine will publish a broad range of article types:

- Original research articles
- Short communications or short reports aimed at rapid publication of highly relevant findings
- Authoritative review papers by world recognized experts (invited reviews) or relevant researchers that wish to submit a review
- Perspectives (short reviews) presenting an outlook on the future direction of a chosen area of the field
- Clinical case studies reporting recent tests and clinical trials in patients of new tissue engineering and regenerative medicine approaches.

This wider range of article types will promote the sharing of knowledge and opinions, the establishment of good practice and discussion of emerging topics, while ensuring that researchers may rapidly publish highly original findings. You will find examples of four of these types of papers in this first issue and the first two short communications will appear in issue 2. More details on the criteria for these different article types can be found in the instructions for authors. It is also important to highlight that the journal will adopt a flexible structure regarding the distribution of the five different article types in each issue.

Why publish in the Journal of Tissue Engineering and Regenerative Medicine?

We have:

- A strong international multidisciplinary Editorial Board and highly respected Senior Editors

- Worldwide visibility due to Complimentary Online Access to full-text of all articles published in 2007 (www.interscience.wiley.com/journal/term)
- Rapid but demanding peer review and publication
- An online manuscript submission and tracking process
- The potential to rapidly become one of the best journals in the field
- A multidisciplinary readership.

The journal will publish articles online as fast as possible (while of course maintaining the quality of the review process) and will ensure a very fast review for short communications. The use of the well established online submission system Manuscript Central (<http://mc.manuscriptcentral.com/term>) will make all this smooth and achievable. Of course the fact that the journal is being launched by one of the strongest scientific publishers in the world, with a level of experience that is reflected in the fact that they are celebrating their bicentennial in 2007, will clearly be instrumental in the success of this journal.

To ensure that everyone has the opportunity to evaluate *Journal of Tissue Engineering and Regenerative Medicine* we are offering complimentary online access to the full-text of all articles published in 2007 for those Institutions who choose to take advantage of it. In order to access the journal, you just have to ask your librarian to Opt-in for online access by visiting: <http://www.interscience.wiley.com/newjournals>, or of course by contacting their Wiley InterScience Account Manager. This policy will also benefit our authors by dramatically increasing the visibility of their papers.

The first issues of the Journal of Tissue Engineering and Regenerative Medicine

We hope you will enjoy our inaugural issue as much as we have enjoyed preparing it. It contains 2 reviews, 1 perspective, 4 research articles and 1 clinical case report. The accepted works come from some major groups with senior authors including Paul Ducheyne, Klaas de Groot, John Jansen, David L. Kaplan, Catherine Verfaillie, Ivan Martin, Hajime Ohgushi and myself. The topics of the manuscripts are, as promised, multidisciplinary and of interest to a wide range of readers.

We have equally important articles to come in the following issues. Issue 2 will start with a leading review by Anthony Atala, and will include manuscripts with senior authors including Paul Ducheyne, Julio San Roman, Michael Sefton, John Jansen, Chikara Ohtsuki, Jons Hilborn, Karen Burg and myself. For issue 3 we already have a very interesting perspective article "A proposed definition for regenerative medicine" and articles from some other major groups, such as those of Clemens van Blitterswijk, Robert Brown and Fu Zhai Cui.

I am sure that you will enjoy the contents of our new *Journal of Tissue Engineering and Regenerative Medicine*. The editorial team and the publisher are committed to making it a leading journal, to obtaining listing by ISI and PubMed/Medline as fast as possible, and of course to reaching a high impact factor. Just Opt-In for the complimentary access, you won't regret it! Also please consider submitting your next paper to our journal, we have a broad readership, a rapid review process and you can trust that this will become a leading journal. . .