

Editorial

Relaunching of *Cell Regeneration*

Cell Regeneration, an open access academic journal, is being relaunched by the Chinese Society for Cell Biology. The journal aims to publish innovative research within the rapidly growing fields of stem cell biology and regenerative medicine by providing a global platform for scientists to promote basic research and to foster clinical translation.

Stem cells, as a specific type of undifferentiated cells, have the potential to differentiate into almost any type of cells within the body, and this very feature of stem cells makes it possible to develop new strategies for regenerative medicine. With stem cell therapy at the core, regenerative medicine holds a great promise for the effective repair of damaged or aging tissues or organs in the human body and to find an ultimate cure for various age-related and degenerative chronic disorders such as cardiovascular, nervous and autoimmune diseases.

During the last decade, there was a tremendous advancement in stem cell biology and regenerative medicine research, and the knowledge derived from such basic science is just now being translated into clinical applications. The potential of using stem cell technology to treat neurodegenerative diseases has attracted broad public interest. Although regenerative medicine holds a great promise to treat degenerative diseases and chronic disorders, using stem cells, yet we are far from completely understanding the underlying mechanisms of pluripotency and differentiation. Current technologies in clinical translation cannot be deemed safe and efficient until sufficient knowledge about stem cell pluripotency and regeneration biology is made available to overcome major impediments. For instance, due to limited knowledge on the mechanistic insights of tissue regeneration *in vivo* and the interplay between stem cells and their micro-environmental niche, we have not yet found a way to control the fate of stem cell differentiation in the body, which is crucial for medical applications of any stem cell technology that can be used in regenerative medicine. On the contrary, the same type of stem cells isolated from different donors have diverse genetic backgrounds, and when grown *in vitro*, the processes of self-renewal and differentiation exert a significant impact on the physiological state of these cells, all contributing in part to the irreproducibility of results, that lead to ambiguous conclusions.

Furthermore, a uniform standard of application of stem cells for disease treatment has to be established. Undoubtedly, deep understanding of stem cell biology and the elimination of the hurdles in regenerative medicine rely on the development and advancement of multi-disciplinary research. For example, the striking progress on organoid technologies has ushered in a new way to study tissue regeneration; smart biomaterial-based tissue engineering and new methods in regenerative medicine have provided exciting

potentials to meet the substantially enhanced need of repairing and regenerating hard tissues.

With the rapid expansion of research in stem cell biology and regenerative medicine, the number of publications in this field has dramatically surged. After analyzing the corresponding source of these publications, we noticed that most of them were published in either broad-spectrum or interdisciplinary research journals. More focused sharing of relevant discoveries and progress in a specialized journal can attract more broad-based readership and establish a direct connection between authors, reviewers and readers—allowing more rapid accrual of citations.

Ultimately, these efforts may expedite the development of this particular research field. This journal would also make an immediate impact on the author's professional visibility, leading to increased efficiency of obtaining the latest research progress in the relevant field, and providing a professional and selective platform for improved communication between researchers.

With these aims in mind, we have relaunched the journal *Cell Regeneration*, which was initially launched in 2012 as an open access, peer-reviewed journal catering to novel research articles as well as in-depth reviews in modern biology, especially in the fields of stem cell biology, regenerative biology and regenerative medicine. Currently, the papers published in *Cell Regeneration* have been cited in PubMed, Scopus and DOAJ. With this relaunching, we want to position the journal at the forefront of basic and applied research of stem cell biology and regenerative medicine, including embryonic stem cells, induced pluripotent stem cells, tissue stem cells, tissue and organ regeneration, related methodology, biomaterials, regenerative medical applications and associated research.

Cell Regeneration has intentionally adopted an open access publishing format to ensure that all readers can obtain published articles for free. As mentioned above, we expect it to become an international academic platform for the scientists working on stem cell biology and regenerative medicine, therefore serving the academic community is its most important mission. *Cell Regeneration* is committed to provide efficient, effective and equitable peer-reviews and publishing services.

We acknowledge the fact that the most important service of academic peer-review comes mostly from the scientists serving as editors and reviewers. Most importantly, scientists working in the laboratory are the real discoverers and creators of new knowledge, while the academic journal is dedicated to assisting them in making their knowledge visible and beneficial to human civilization. Therefore, we think that the community doing this important work should reap the benefits. As our society supports the academic community, its affiliated journal, *Cell Regeneration* will support scientists in the community, covering their publishing cost,

within our capacity. So, authors do not need to pay an article-processing fee for each article accepted for publication in *Cell Regeneration*. In terms of this view, a two-way, free of charge publication allows articles to be published in our journal for broader dissemination.

As an academic journal, *Cell Regeneration* focuses on publishing original research and review articles. For information on other types of article, please consult our editorial office. In addition, *Cell Regeneration* will also support preprint release, although readers may have to judge the quality of research work for themselves as the preprints may not have undergone rigorous peer-review. The preprint format provides immediate visibility of the research, which is beneficial for the healthy growth of academia in the long-term, especially for the rapid development of research in stem cell biology and regenerative medicine. In order to encourage more authors to choose the preprint option, we will provide a trackable review process service for all preprints submitted to *Cell Regeneration*, so that the review process is more transparent and equitable for the authors.

We would like to work together with our authors, reviewers, and editorial board members, and the academic community to explore new ways to improve the process of peer-review and publishing. As we are relaunching *Cell Regeneration*, we wish to take this opportunity to sincerely invite you to set sail with us on this constructive journey. Please submit your manuscripts to *Cell Regeneration*, help with manuscript peer-review, and read the articles published in the journal!

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