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New Editor-in-Chief



I am very excited to accept the appointment as Editor-in-Chief of Stem Cell Research (SCR). Over the last several years, SCR has established itself as a major chronicler of developments in the stem cell field, and as an important member of the larger Elsevier family. Andrew Elefanty, Monash Immunology and Stem Cell Lab, Monash University, the Editor-in-Chief of SCR since 2007, has led the journal in establishing high standards and vital coverage. Andrew not only inaugurated SCR, but accomplished the nearly impossible – that is, to attract many high-quality papers at a time when stem cell journal competition was intense. I look forward to working with the deputy editor, Pam Robey, National Institutes of Health, National Institute of Dental and Craniofacial Research (NIDCR), the associate editors (P. Bianco, P. Gadue, M. Grompe and K. Orwig), and the editorial board, to maintain and build upon the strong foundations at SCR.

This is an incredibly exciting and challenging time in stem cell research, as it dovetails with and invigorates the field of regenerative medicine. We are on the cusp of major milestones in basic discoveries and clinical applications. Recent efforts to map the “epigenome” of stem cells and the exploration of how transcription factors influence cell fate have revealed the most fundamental structural underpinnings of stem cells, and shed light on cell functions in general. In the next three to five years, we can expect a revolution in our understanding of the inner workings of the networks and pathways that enable cells to remain stable and responsive.

We have also seen the advent of technologies like cellular programming and reprogramming, gene editing, advanced biophysical tools, imaging and optogenetics. This knowledge gained on the cellular level will have an inevitable impact on the understanding and treatment of such devastating maladies as Parkinson's disease, heart disease, cancer and diabetes. There is also the promise of important breakthroughs in the clinic, as trials have been initiated utilizing both pluripotent stem-cell-derived products and adult cell products. The results of these studies will not only accelerate the development of treatments and augment related clinical disciplines like gene therapy; they will also provide fertile

ground for new basic insights into cell function and cell pathology.

I see SCR at the center of these micro- and macro-developments, by promoting coverage of basic scientific research and fast-tracked studies on specific diseases. I believe that SCR will become a must-read for researchers and clinicians – not just in cellular biology but in regenerative medicine, oncology, cardiology and neurology. This journal can help knit the medical and research communities together by publishing reviews and original articles on basic and applied research, on methods and processes, and on news and current thinking, that can be utilized by both the practicing clinician and the cell biologist. Why shouldn't the neurologist be familiar with Oct4, Sox2, Klf4 and cMyc, and, conversely, the epigenomologist understand GMP?

Robert Heinlein once said that “specialization is for insects” – perhaps the division between M.D.'s and Ph.D.'s belongs to the last century. SCR can be the journal that will spark connections among seemingly divergent areas of study, and encourage the disruptive and creative process that is scientific research – after all, medicine is biology.

True discovery is impossible to predict, but research on every stem cell, every molecule and every phenotype carries great potential to reveal the secrets of embryonic development and new ways to battle disease. In my opinion, the “Copernican Revolution” is still in its infancy, and while we all understand its blueprint, the details still need to precipitate.

Quality and thorough review will remain the primary criteria for the selection of articles, as SCR welcomes reports on novel research, methodologies, hypotheses, observations and models, in recognition of the broad relevance stem cell science has to so many medical disciplines and fields.

I look forward to serving the editorial board of Stem Cell Research and its community of readers.

Thomas P. Zwaka
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