Special Issue

Cell Lineage Choice during Haematopoiesis 2.0

Message from the Guest Editor

This Special Issue is the second volume of our previous Special Issue "Cell Lineage Choice during Hematopoiesis: A Commemorative Issue in Honor of Professor Antonius Rolink". For more than 30 years, we seemed to have a very clear picture of how the hematopoietic stem cell (HSC) gives rise to the many different types of blood and immune cells. In the classic lineage tree model, HSC follows a prescribed route to each of the end cell types and gradually restricts their alternative choices via a series of intermediate oligo-potent progenitor cells. Recent findings have challenged these principles, leading to a very different viewpoint whereby a continuum of each fate option is open to HSCs. Thus, HSCs have lineage biases/affiliations and progenitor cells in bone marrow are either pluripotent or unipotent. Thus, HSCs can make an immediate choice without traversing a series of intermediate progenitors to progressively close down developmental options. Developing cells can move sideways to adopt an alternative fate. This Special Issue will examine the shift toward a new architecture for the blood cell system and how the development of such cells is controlled.

Guest Editor

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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