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Symmetry Breaking in Cells and Tissues

Guest Editor:

Prof. Dr. Andrew Boris Goryachev

Centre for Synthetic and Systems Biology, Institute of Cell Biology, University of Edinburgh, Edinburgh EH9 3BF, UK

Deadline for manuscript submissions:

closed (31 May 2020)

Message from the Guest Editor

Dear Colleagues,

In this multidisciplinary Special Issue of *Cells*, we invite contributions from all researchers fascinated with biological symmetry breaking on the level of cells and tissues, regardless of their discipline. Your contributions may be in the form of original research articles, reviews, or shorter perspective articles. Biophysical and mathematical modeling is welcome. Relevant topics include but are not limited to:

- All manifestations of cell polarization, cue-directed or spontaneous, planar cell polarity;
- Membrane domain formation, lipid demixing, formation of protein–lipid complexes and rafts;
- Phase separation in the cytoplasm and nucleus, formation of nonmembranous granules and organelles, chromatin condensation;
- Formation of acto-myosin structures at the membrane–cytoskeleton interface, such as filopodia, lamellipodial protrusions, dorsal ruffles, podosomes, and microridges;
- Waves and patterns in the cytoplasm and on the plasma membrane and cortex, including induction of cytokinetic furrows;
- Cellular patterns and gradients, such as formed by kinase–phosphatase opposition, tissue-scale morphogen gradient formation.



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Special Issue



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Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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Contact Us

Cells Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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