

Special Issue

Ascidian Early Development

Message from the Guest Editors

Ascidians are a well-established model animal for understanding human beings as a member of the superphylum Chordata. After the draft genome of *Ciona intestinalis* was reported in 2002, molecular understandings of early development have been expanded. This Special Issue aims to summarize the current status of lower chordate biology and prospects for this new era, in which outcomes from ascidian biology have a great impact on medicine and human health. Potential topics include, but are not limited to, the following:

- Maternal information, including localized factors, transcriptional and translational regulation, and cytoskeletal rearrangement;
- Morphogenesis, tissue and organ development, cell-fate determination, and metamorphosis;
- Neuronal and hormonal signals, the development of the central and peripheral nervous systems, photoreception, memory, and behavior;
- Oogenesis and spermatogenesis, fertilization, self-nonsel self recognition, and the immune system;
- Molecular evolution, molecular phylogeny, and the origin of vertebrates.

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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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