DEVELOPMENTAL BIOLOGY
An official journal of the Society for Developmental Biology

AUTHOR INFORMATION PACK

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DESCRIPTION

Developmental Biology (DB) publishes original research on mechanisms of development, differentiation, and growth in animals and plants at the molecular, cellular, genetic and evolutionary levels. Areas of particular emphasis include transcriptional control mechanisms, embryonic patterning, cell-cell interactions, growth factors and signal transduction, and regulatory hierarchies in developing plants and animals.

Research Areas Include:

- Molecular genetics of development
- Control of gene expression
- Cell interactions and cell-matrix interactions
- Mechanisms of differentiation
- Growth factors and oncogenes
- Regulation of stem cell populations
- Evolution of developmental control
- Gametogenesis and fertilization

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AUDIENCE

Cell and Developmental biologists. Focuses on: mechanisms of development, differentiation, and growth in animals and plants.
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Introduction and article types
Scientific Guidelines for Authors submitting to Developmental Biology

Developmental Biology’s goal is to publish high quality papers providing causal insight into the cellular and molecular mechanisms that govern developmental processes.

Studies which simply confirm an established functional role for a developmental component by presenting analysis in a new species lack sufficient novelty for consideration. Descriptive studies will only be considered if/when they represent a timely and novel insights or resources to the field.

The following article types are available for authors:

Original Research Papers

Developmental Biology seeks to publish only the very best papers that contribute new information to our understanding of developmental mechanisms. We require that manuscripts specifically address biological relevance and conform to the following guidelines:

Expression profiling and gene expression studies must contain supporting functional data. Studies solely based on analysis of expression by microarray, northern blots, PCR or in situ hybridization that are too descriptive or preliminary would not justify full review.

Developmental Biology is pleased to publish classical experimental embryology papers that provide unusual new insights.

Experiments using interfering DNA or proteins to address gene function are expected to be highly controlled. In particular, experiments with Morpholino, RNAi, siRNA or dominant negative constructs are expected to contain very precise controls to address the specificity of the effects observed.

Studies in which the expression, structure or function of a gene/protein is altered but leads to no phenotypic consequences are not appropriate. Furthermore, studies of mutants which simply show that a gene/protein is required for development will be discouraged unless attempts are made to address the mechanistic basis, causal roles or tissues and processes affected.

Experiments using stem cells must advance our understanding of biological functioning. Studies that simply grow/isolate stem cells from a tissue and show what markers they express are not appropriate.

Studies using cell culture must show direct (in vivo) relevance in a developmental context.

Resource Papers

Resource papers are original research papers which provide important and timely information that will have an impact on the work of developmental biologists. Examples of such papers are studies describing novel spatial gene expression patterns and gene phylogeny, new model systems or containing a usable collection of data of particular value to the field. This would not include, for example, a description of the expression pattern of a gene in one species that has already been described in another species, or an expression pattern with no obvious link to a developmental process.
Please note, authors submitting a Resource Paper should select "Research Paper" article type and designate "Resource" under Manuscript Category in Additional Information (step 3 of submission). No specific formatting restrictions are applied to Resource papers; however, we encourage authors to prepare succinct descriptions, so to have Resource papers as readily usable references for scientists.

**Short Communications**

Short communications are intended to provide quick publication of good impact results, thus portraying current advances in the field of Developmental Biology. This new format of paper in DB should contain approximately four figures and a single scientific conclusion. Although there is no specific word limit, typical short communications are in the range of 2,000-3,000 words.

**Review Articles**

Review articles are intended to reach a broad audience of readers from investigators in the field to new graduate students learning the material for the first time. We encourage submissions of review articles on established topics in the field but also on timely and provocative areas of research. Review Articles are by invitation; scientists who wish to contribute a review should send a pre-submission inquiry to one of the editors.

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DB accepts commentaries on newly published articles of particular relevance to the developmental biology field. Commentaries should provide an insightful perspective on a topic just published in a journal by discussing the context, existing problems and/or implications of a new finding. A commentary may also speculate on future directions of a certain topic and may include a personal opinion. Commentaries should be no longer than 2000 words and should not contain an abstract.

**Key resources table**

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For large datasets such as microarrays, RNAseq, ChIP-seq, proteomic analysis, etc. whose publication would be impossible within a regular article, Developmental Biology offers its authors the possibility to submit these data and their description as a companion paper to Data in Brief. See appropriate paragraph below for explanation.

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**Drosophila**: FlyBase - nomenclature guidelines

**Human**: Human Gene Nomenclature Committee (HUGO)

**Mouse**: Mouse Genome Informatics (MGI) - Mouse nomenclature guidelines

**Nematodes**: WormBase - nomenclature guidelines

**Rat**: Rat Genome Database (RGD) - Rat nomenclature guidelines

**Xenopus**: Xenbase - Xenopus nomenclature guidelines

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Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site. Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images and in accordance with all technical requirements.

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Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**Acknowledgements**

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

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