

# **Birth Defects Research**

## **Part A.**

### **CLINICAL and MOLECULAR TERATOLOGY**

#### **Aims and Scope**

The purpose of this journal is to serve as a forum for original scientific articles and commentary that contribute substantively to the elucidation of the causative factors and mechanisms leading to adverse pregnancy outcomes in the human population, including pregnancy loss, structural birth defects, and developmental disabilities. This journal will also serve as the official communication for meeting information, meeting reports and societal position papers of the Teratology Society. Specifically, research articles are sought that endeavor to:

- describe adverse pregnancy outcomes as a function of developmental insult with environmental factors (here broadly defined), including clinical and epidemiological studies to determine important exposures, genes and pathways that underlie teratogenic effects.
- analyze critical events in standard as well as novel animal models using modern tools of cellular or molecular biology, biochemistry and structural biology, experimental embryology and developmental physiology, genetics and genomics / proteomics / metabolomics (e.g., biomics) to define the processes of normal and abnormal development;
- predict adverse developmental outcomes through generation, integration, and use of genomic/proteomic databases, computer simulations and modeling, and analytical contributions to the compendium for biomics in birth defects research; and
- develop and critically evaluate approaches to the prevention of birth defects, including new approaches for risk assessment and the clinical counseling for teratogenic agents.

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## Part B.

### DEVELOPMENTAL and REPRODUCTIVE TOXICOLOGY

#### Aims and Scope

The purpose of this journal is to publish original contributions describing the toxicity of chemicals to developing organisms and the process of reproduction. The scope of the journal will include:

- toxicity of new chemical entities and biotechnology derived products to developing organismal systems;
- toxicity of these and other xenobiotic agents to reproductive function;
- multi-generation studies;
- endocrine-mediated toxicity, particularly for endpoints that are relevant to development and reproduction;
- novel protocols for evaluating developmental and reproductive toxicity;
- approaches to the application of risk assessment for developmental and reproductive toxicants;
- toxicity related to direct exposure in juvenile animals.

Studies with *in vivo* and *in vitro* model systems will be the primary focus of the journal. Studies conducted to comply with regulations for the registration of pharmaceuticals, agro chemicals, chemicals or biotechnology derived products and provide data for safety/risk assessments are welcome, including testing to fulfill requirements for high-production volume, assessment of children's health, endocrine disruptor screening and testing, and other governmentally mandated programs. Inclusion of comprehensive data that are necessary for complete interpretation of study results is encouraged, and tables and figures that are too extensive to publish in hard copy may be made available through an associated website.

Manuscripts will be judged based on the appropriateness of the experiments, quality of the data, the presence of multiple dose levels, adequate statistical power, and the presence of information that allows estimation of the potential risk to human reproduction or development. The outcome of a study (i.e., whether an agent is a reproductive hazard) will not be used as criterion for acceptance of a manuscript.

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## **Part C.**

### **REVIEWS IN EMBRYOLOGY**

#### **Aims and Scope**

*REVIEWS IN EMBRYOLOGY* provides scientists and clinicians with state-of-the-art review articles that capture exciting advances in the fields of embryology, developmental biology, and teratology. The unifying theme is the “embryo” as an integrative system for scientific investigation. The format will include authoritative review articles and tutorials that critically evaluate emerging knowledge and technical advances in embryology, developmental biology, and teratology in a multidisciplinary manner.

The overall goal of *REVIEWS IN EMBRYOLOGY* is to present a coherent synthesis of basic principles and concepts of embryology targeted for a broad audience consisting of developmental biologists, biomedical scientists, and clinicians. Special emphasis will be on topics that cover embryology, abnormal development, and embryonic development as it relates to clinical medicine.