

## ***Birth Defects Research***

### **Aims and Scope**

The journal ***Birth Defects Research*** publishes original research and reviews in areas related to the etiology of adverse developmental and reproductive outcome. In particular the journal is devoted to the publication of original scientific research that contributes to the understanding of the biology of embryonic development and the prenatal causative factors and mechanisms leading to adverse pregnancy outcomes, namely structural and functional birth defects, pregnancy loss, postnatal functional defects in the human population, and to the identification of prenatal factors and biological mechanisms that reduce these risks.

Adverse reproductive and developmental outcomes may have genetic, environmental, nutritional or epigenetic causes. Accordingly, the journal ***Birth Defects Research*** takes an integrated, multidisciplinary approach in its organization and publication strategy. The journal ***Birth Defects Research*** contains separate sections for clinical and molecular teratology, developmental and reproductive toxicology, and reviews in developmental biology to acknowledge and accommodate the integrative nature of research in this field. Each section has a dedicated editor who is a leader in his/her field and who has full editorial authority in his/her area.

The journal ***Birth Defects Research*** publishes work in the following areas:

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- Environmental, genetic and epigenetic factors, and their interactions, causing birth defects demonstrated by clinical epidemiology
- Cellular and molecular causative mechanisms of adverse developmental and reproductive outcomes in animal models
- Novel insights from genomic, transcriptomic, proteomic and metabolomic approaches
- Protective factors in humans and their mechanisms in animal models
- Reproductive and developmental toxicity of drugs, chemicals and biotechnology-derived products in organismal, cellular and computational models:
  - endocrine-mediated reproductive and developmental toxicity
  - protocols for evaluating developmental and reproductive toxicity, ranging from computational models to regulatory bioassays
  - physiologically based pharmacokinetic (PBPK) mathematical modeling of pregnancy and delivery of agents to the developing organism
  - approaches to risk assessment for developmental and reproductive toxicants
  - toxicity related to direct exposure in juvenile animals
- Topical, multi-disciplinary and state-of-the-art review articles that capture exciting advances in normal and abnormal developmental and reproductive biology

The journal ***Birth Defects Research*** is published in twenty issues per year.

### **Readership**

Specialists and trainees in genetics, developmental biology and embryology, toxicology, epidemiology and teratology.

### **Keywords**

Birth Defects, Inborn Errors of Morphogenesis, Prenatal and Perinatal Epidemiology, Clinical and Molecular Embryology, Clinical and Molecular Teratology, Developmental and Reproductive Toxicology, Developmental Biology, Developmental Genetics, Genetics and Epigenetics, Genomics, Transcriptomics and Proteomics.