



CALL FOR PAPERS:

SPECIAL ISSUE OF NEUROTOXICOLOGY AND TERATOLOGY

SEX DIFFERENCES IN NEUROTOXIC EFFECTS

Increasingly, the field of developmental neurotoxicology has found differential sensitivity of female and male offspring to gestational neurotoxic exposures. In addition, there are typical sex differences in neurobehavioral function that have been found to be diminished or reversed by developmental neurotoxic exposure. A few years ago, Clayton and Collins (2014, *Nature*, 509:282-283) published a landmark article stating the rationale and requirement for the study of both females and males in all NIH-sponsored studies, unless there is a cogent rationale not to do so. This is an enlightened approach as exclusion of either sex ignores effects on approximately half of the population and there is an abundant literature that sex differences are quite often biologically important. When studying the outcome of toxicant exposures during gestation, there are always female and male offspring, so the field of teratology has studied both sexes throughout its history. Thus, we have an abundant literature concerning sex differences throughout teratological research, particularly concerning differences between males and females in response to prenatal and neonatal toxicant exposure. Equally important, however, are sex differences in toxicant effects on neurobehavioral function later in development, including childhood, adolescence, and adulthood.

Accordingly, *Neurotoxicology and Teratology* is organizing a Special Issue on the theme of "Sex Differences in Neurotoxic Effects" of exposure throughout the lifespan to environmental toxicants, drugs of abuse, and therapeutic drugs. We invite all researchers in the field of neurotoxicology to contribute primary data-driven reports or critical review articles. Submissions may include prospective/retrospective human studies or empirical *in vivo* or *in vitro* studies using laboratory animals or cell culture systems.

The following are examples of relevant topics for the Special Issue:

- Neurotoxic effects on reproductive behaviors in males vs. females
- Developmental windows of vulnerability to differential neurotoxic effects between sexes
- Epidemiological findings of sex differences in neurotoxicity
- Sex differences in neurocognitive effects of toxicant exposure
- Neural and/or endocrine mechanisms mediating sex differences in the behavioral effects of toxicant exposure

All submissions to this Special Issue will be fully peer-reviewed, and because *Neurotoxicology and Teratology* is abstracted and indexed in BIOSIS, Current Contents/Life Sciences, EMBASE, EMBiology, ETOH, Elsevier BIOBASE, MEDLINE®, Science Citation Index, and Scopus, its contents will be available through typical search engines of the medical literature (e.g., PubMed). The Special Issue will also be circulated to all subscribers of the journal and be accessible via ScienceDirect.

This Special Issue will be in the form of a Virtual Special Issue (VSI), which is a new approach to publishing Special Issues that allows us to address one of the most common complaints by authors – slow publication speed. With a VSI, accepted manuscripts are published in the first available regular issue, and corresponding authors will receive 50 days free access to the final published version of their manuscript. Thus, authors do not need to wait until all the Special Issue manuscripts are accepted to have their manuscript published. Simultaneously, articles will appear in a VSI section on the *Neurotoxicology and Teratology* website and on ScienceDirect.

To be considered for inclusion in this Special Issue, please submit your manuscript to *Neurotoxicology and Teratology* by June 1, 2019, via the electronic submission system (<https://www.evise.com/profile/#/NTT/login>). Manuscripts should be assigned to the category “VSI: Sex Differences” at the beginning of the submission process, and a cover letter to the Editor should also specify that the submission is targeted for this issue.

We hope that you will consider this invitation seriously and submit your best work to this issue. Recent trends in scientific publication indicate that articles that appear in special issues receive a great deal of attention and we hope that you will take advantage of this opportunity. If you have any questions, feel free to directly contact one of the Co-Editors. We look forward to your contributions to this Special Issue.

Thank you,

Edward D. Levin, Diana Dow-Edwards, and Heather Patisaul

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