

Special Issue

Novel In Vitro and In Silico Approaches to Study Developmental Neurotoxicity

Message from the Guest Editor

There are sufficient shreds of evidence that increased exposure to environmental contaminants plays a substantial role in the increase in developmental diseases. Due to the complexity of the brain, this organ is highly vulnerable to toxic insult. Current developmental neurotoxicity (DNT) testing guidelines present high cost and are very time consuming, generating a lack of information and knowledge concerning new chemicals reaching the market. DNT experts have suggested *changing*/updating current testing guidelines with a comprehensive *in vitro* DNT strategy, consisting of a test battery that recapitulates key events during brain development. A DNT screening program has been developed under EFSA, the JRC, the US EPA, and the OECD to develop a complete DNT testing battery that could replace the actual guidelines OECD TG 426 or OECD TG 443. The special issue aims to cover original research and reviews focused on new advances in *in vitro* and *in silico* neurotoxicity testing strategies and models which in the future could be used or further adapt for developmental neurotoxicology studies.

Guest Editor

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