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Development of the 4D program for simulation of human intrauterine frontal cortex development

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Abstract

The brain as a complex energy-informational system is dynamic structure, which during intrauterine development in humans changes within each gestational week. The dramatic introduction of endocrine disruptors in living systems on Earth is significantly reflected in the number of diseases, obesity, and infertility. Brain due to its complexity demand a specific scientific approach especially during intrauterine development. Development of program, which will enable the introduction of a test platform for recognition of disturbances within a horizontal, vertical and modular activity frames in the brain during development caused by xenobiotics, such as endocrine disruptors, is of great significance.

Short bio

Aleksandra Fučić has 35 years of research experience in genotoxicology and biomonitoring. Her main scientific interests are carcinogenesis mechanisms after exposure to chemical and physical agents including transplacental exposure and life long health risks. She has published over 100 papers and several books. She is a Fellow of Collegium Ramazzini. Dr Fučić took part in many international and national projects, European biomonitoring programs and reports. Currently she is partner in the largest European biomonitoring project HBM4EU in which she is focused on investigation of occupational and environmental endocrine disruptor exposures.