

Окружающая среда (включая изменение климата)

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FP7-ENV-2007-1

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**CENTRAL NERVOUS SYSTEM FUNCTIONAL STATE PECULIARITIES RELATED TO HEAVY METALS
CONTENT IN ADOLESCENTS**

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:: Collaboration

Project Proposal

**Title: Central nervous system functional state peculiarities related to heavy metals
content in adolescents**

Type Details: Estimation of unfavorable effect on human organism caused by environment pollution is one of the most important tasks of medicobiological sciences. Hence the idea of "environmental health" becomes rather popular. The nervous system is most sensitive among the other organism systems to external factors, and its environmentally induced disorders must take a deep study. Of major negative effect on nervous system are the compounds of such heavy metals as mercury, lead, cadmium, etc.

Until recently a great number of studies were conducted through analysis of heavy metals effect in the experiments on animals at occupational contacts and man-caused accidents, in the groups of environmental risk, with large amount of pollutant accumulated in an organism. However, at present of current importance should be the research of initial adaptive changes in an organism in response to background environment pollution to which the broad masses of population, particularly children, are exposed in their daily life.

Hence the object of the proposed research project – to estimate the central nervous system functional state peculiarities and psychological traits in adolescents (10 to 16 years old) as correlated with the content of heavy metals in an organism.

FRAMEWORK 6C

Research Interest: General Biomedical Sciences; Biophysics; Electroencephalography; Evoked and event-related potentials; Environmental pollution, pollutants, heavy metals.

Expiry Date: 2007-03-01

:: Target Partner

Expertise: Scientific groups who are interested in study of pollutants effect on psychophysiological status of man, particularly children.. We seek partners who are open to the collaboration in study of the mechanisms of heavy metals and other pollutants effect on central nervous system functions.

Country: ЦСТЕРРЕИЧ, BELGIQUE-BELGIЯ, BULGARIA, KYPROS/KIBRIS, CIESKA REPUBLIKA, DEUTSCHLAND, DANMARK, EESTI, ESPACA, SUOMI/FINLAND, FRANCE, HELLAS, Hrvatska, MAGYARORSZAG, IRELAND, ISRAEL, ITALIA, LIETUVA, LUXEMBOURG (GRAND-DUCHY), LATVIJA, MALTA, NEDERLAND, POLSKA, PORTUGAL, ROMANIA, SVERIGE, SLOVENIJA, SLOVENSKA

:: Organisation Details

Name: V.I.Vernadsky's Taurida National University, Ministry of Education and Science

Department: physiology of man and animals and biophysics

UKRAINE

Type: Research

Details:

To find the content value of some heavy metals (Hg, Cd, Pb) in hairs of selected contingents of adolescents.

To discover the peculiarities of functional state of central nervous system correlated to the heavy metals content level in an organism using the methods of EEG and event-related potentials recording.

To find out the correlation between psychological peculiarities and the heavy metals content level in adolescents.

Keywords: environmental pollution; pollutants; heavy metals; electroencephalogram; event-related potentials