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#### THE FUNDAMENTAL DEVELOPMENTS BRANCH

“COGNITIVE MODELING IN THE BIOLOGICAL SCIENCES” (“OBN”)

OF “THE SRI "SFA CMT" OF "THE RA(N)S" NAMED AFTER V.N. VENIAMINOV”

The developed “The fundamental developments branch  
"Cognitive modeling in the biological sciences”” (“OBN”)  
treats to the fundamental developments divisions  
of “The scientific-research institute "System and financial analysis  
based on cognitive modeling technology" of "The RA(N)S" named after V.N. Veniaminov”  
 (“The SRI "SFA CMT" of "The RA(N)S" named after V.N. Veniaminov” – The SRI) as the first SRI  
in structure of “The SIO "Academy of cognitive natural sciences”” (“The SIO "ACNS””),  
an additional component of science and education system of the modern country  
for creation, distribution and use of the main and derivative  
scientific results of the cognitive modeling technology (CMT) (www.vetrovan.(spb.)ru)  
[see the fundamental developments branches and departments of The SRI]:

1) it is executed by the principle of “administrative-economy submission”;  
2) works in several main directions, which allow to provide  
development of the fundamental main and derivative scientific results  
(my second report on SRW from 2006-2008(9) y. was submitted  
to “The SPbSETU "LETI”” and The Government of The RF  
for the translation, carrying out of int. action and receiving of “The Nobel Prize”);

3) includes several various main divisions:  
I. “The fundamental developments department  
"The theory of the biology and pharmacology”” (“SOB”)

*[the fundamental developments in area  
“Theoretical biology” –*

theory of biology, theory of methods and equipment for biological researches,  
theory of molecular biology, theory of bio-physics, theory of cytology,  
theory of embryology, theory of genetics,  
theory of virology, theory of micro-biology,  
theory of botany, theory of plants physiology,  
theory of zoology, theory of ecology, theory of anthropology,  
theory of physiology of human and animals,  
theory of morphology of human and animals,  
theory of immunology, theory of pharmacology,  
theory of toxicology, theory of radiation biology,  
theory of space biology, theory of bionics,  
theory of biological cybernetics, theory of bio-engineering,  
theory of cognitive modeling technology  
in theoretical biology,  
theory of modeling of biological construct of organic individual organism;

*the fundamental developments in area*  
*“ Theoretical pharmacology ”* –  
theory of pharmacology, theory of methods and equipment for pharmacological researches,  
theory of pharmaco-kinetics and pharmaco-dynamics of preparations and substances,  
theory of molecular pharmacology, theory of bio-pharmacology,  
theory of cytological pharmacology,  
theory of embryological pharmacology,  
theory of genetical pharmacology,  
theory of virological pharmacology,  
theory of micro-biological pharmacology,  
theory of botanical pharmacology,  
theory of physiological pharmacology of plants,  
theory of zoological pharmacology,  
theory of ecological pharmacology, theory of anthropology of pharmacology,  
theory of physiological pharmacology of human and animals,  
theory of immunological pharmacology,  
theory of toxicological pharmacology,  
theory of radiation pharmacology, theory of space pharmacology,  
theory of bio-engineering pharmacology,  
theory of cognitive modeling technology  
in theoretical pharmacology ] .

II. “The fundamental developments department  
“The theory of the physical-chemical bio-technology” (“SFCHB”) (\*)

*[the fundamental developments in area*  
*“ Theoretical bio-technology ”* (\*) –  
theory of raw materials and products for bio-technological manufacture,  
theory of bio-technological processes and devices,  
theory of cellular engineering,  
theory of technological bio-energetics,  
theory of applied genetic engineering,  
theory of engineering enzymology,  
theory of immunological-bio-technological methods of analysis,  
other theories and problems of bio-technology (genic engineering),  
theory of cognitive modeling technology  
in theoretical physical-chemical bio-technology (theory of genic engineering),  
theory of modeling of desoxyribonucleic acid structure  
based on multidimensional cognitive cylinder].

The fundamental developments branches and departments of The SRI  
allow to develop the main and derivative scientific results of CMT.