**Title: Fibroblasts as a Bio-cellular Model for Studying Amino Acids Transport in Schizophrenia, Bipolar and Related CNS Disorders**

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***Abstract***

Tyrosine and tryptophan are precursors to dopamine and serotonin and are involved in partial regulation of dopamine and serotonin synthesis. Changes in tyrosine and or tryptophan availability may influence dopamine-serotonin function that may cause widespread changes both in neurotransmission and psychopathology in patients with schizophrenia, bipolar-I and related CNS disorders. Competitive transport with other amino acids or aberrant transport of these precursors across the cell membranes/blood brain barrier (BBB) can cause a limited availability of tyrosine and/or tryptophan to the brain. Transport of neutral amino acids including tyrosine, tryptophan and alanine, mainly occurs through L and A system. Aberrant tyrosine transport in schizophrenia, bipolar-I disorders and autism, results from different investigations, functionality and the relationship between tyrosine, tryptophan and alanine transport in fibroblasts will be presented and discussed.

***Biography***

Dr. Nikolaos Venizelos, Medicine Doctor (Ph.D.-medicine),now is an Associate professor of Biomedicine, head of the Neuropsychiatric Research Laboratory and Bio-bank of the Department, Chairman for Research Board of Biomedicine Program director of Biomedicine education program, Member of the Sweden's National Bio-banks Council. He got his B Sc in biomedicine, M Sc in cell biology, Specialist in clinical chemistry, Medicine Doctor's degree (Ph.D.) at Karolinska Institute, Docent. And Dr. Nikolaos Venizelos got the Norage-Pharmacia Award in 1994, and a Research Award from “Intern. Studies on the mechanisms of cellular membrane transport of dopamine and serotonin precursors in schizophrenia, Medicine Doctor (Ph.D.-medicine), of the Neuropsychiatric Research Laboratory and Bio-bank of the Department, Chairman for Research Board of Biomedicine Program director of Biomedicine education program, Member of the Sweden's National Bio-banks Council. He got his B Sc in biomedicine, M Sc in cell biology, Specialist in clinical chemistry, Medicine Doctor's degree (Ph.D.) at Karolinska Institute, Docent. And Dr. Nikolaos Venizelos got the Norage-Pharmacia Award in 1994, and a Research Award from “Intern. Neuropsychiatry Congress (INA-WFSBP)”, Athens, 2004. Currently Dr. Nikolaos Venizelos’ researches focusate professor of Biomedicine, head of the Neuropsychiatric Research Laboratory and Bio-bank of the Department, Chairman for Research Board of Biomedicine Program director of Biomedicine education program, Member of the Sweden's National Bio-banks Council. He got his B Sc.

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