**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. Cathy Lee, Professor (Ph.D.-medicine), now is a 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. Neuropsychiatry Congress (INA-WFSBP)", Athens, 2004. Currently Dr. Nikolaos Venizelos' researches focus on the Bio-cellular membrane and amino acid transporters in Neuropsychiatric disorders. Studies on the mechanisms of cellular membrane transport of dopamine and serotonin precursors in schizophrenia, 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. 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..