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Coupling the Genetic Addiction Risk Score (GARS),™ Comprehensive Analysis of Reported Drugs (CARD)™ and KB220Z™ showing reward circuitry activation of dopaminergic pathways in Reward Deficiency Syndrome (RDS): A paradigm shift

Over 50 years my laboratory and others have been interested in developing a number of important tools to accurately diagnose (GARS™) , evaluate compliance to treatment medications and abstinence during treatment(CARD™) and enhance the quality of life of the "recovering" addict (KB220Z™). In two ethnic populations (Caucasian & Chinese) our laboratory using a modified GARS™ studied six polymorphic risk genes (DRD2=A1; SLC6A3 (DAT) =10R; DRD4=3R or 7R; 5HTTlRP = L or LA; MAO= 3R; and COMT=G.).Using CARD™ we evaluated both compliance and abstinence during treatment using 11, 406 specimens from 5,703 patients located in various treatment settings across six eastern states. We used fMRI and qEEG to evaluate the role of KB220Z™ on reward circuitry in a triple blinded – randomized placebo controlled cross-over study (one-hour post) in heroin and psychostimulant addicts undergoing protracted abstinence. 56% of the subjects carried the DRD2 A1 allele. One –hundred percent of the studied population carried at least one risk allele and 74% of the combined 25 subjects had a moderate to high GARS. Utilizing CARD™: compliance to RX Medications = 71%; 49% still abusing drugs during treatment; in Opiate Treatment Programs = 82.3% compliant to RX Medications; 47% still abusing drugs: Marijuana included = significant increase in drug abuse. KB220Z ™ induced fMRI activated caudate –accumbens dopamine and attenuated putamen abnormalities; increased both qEEG alpha and low beta bands in PFC-Cingulate Gyrus. Awaiting additional required studies, cautiously proposing "**Reward Deficiency Solution System**" ™ for RDS.

Biography

Kenneth Blum,PhD, Research Professor (volunteer) of the Department of Psychiatry at the University of Florida, College of Medicine, Gainesville, Florida; Research Professor (adjunct) ,Department of Psychiatry University of Vermont College of Medicine, Burlington, Vermont; and is currently Chairman of the Board & Chief Scientific Officer of LifeGen, Inc., Austin, Texas. He serves as a consultant and senior scientific advisor in Neuroscience for many companies and Foundations. He is the Editor-in-Chief for Journal of Genetic Syndrome & Gene Therapy. He has published approximately 500 articles, chapters in books and authored and edited 13 books. Following his lead discovery of associating the Dopamine D2 receptor gene as a risk for severe alcoholism and other addictions he has been considered by many as the father of "Psychiatric Genetics". He holds numerous patents and is the father of "Neuronutrient Therapy" for RDS.

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