Introducing precision addiction management of Reward Deficiency Syndrome, the construct that underpins all addictive behaviors

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Worldwide, daily there are several millions of people increasingly unable to combat their frustrating and even fatal romance with getting high; for some 'high' may be just experiencing "normal" feelings of well-being. The National Institutes on Alcohol Abuse and Alcoholism and on Drug Abuse (among others) conduct and fund outstanding research using Sophisticated Neuroimaging and Molecular Genetic Applied Technology to improve understanding of the intricate functions of brain reward circuitry and resting sate functional connectivity, that is purportedly playing a key role in the addiction symptomatology. There is controversy as to the ultimate definition of addiction involving ASAM, ISAM, on one hand and other psychological and World Health Organizations on the other hand. From a Neuroscience perspective, while it is widely accepted that dopamine is a major neurotransmitter implicated in behavioral and chemical addictions, there remains controversy about how to modulate dopamine clinically in order to treat and prevent various types of addictive disorders. While for the most part Medication Assisted Treatments (MATS) promote dopamine blockade or unintentional dopamine down–regulation in the long term, adherence and relapse prevention has been poor. This is especially true even for even for Buprenorphine–naloxone combinations. It appears, though, that a prudent approach may be a biphasic short-term blockade followed by long-term dopaminergic upregulation, with the goal of enhancing the functional connectivity within the brains reward circuitry, possibly targeting the reward deficiency and the stress-like anti- reward symptomatology arising in the context of addiction. Such phenotypes can be characterized using the Genetic Addiction Risk Score (GARS)™ Dopamine homeostasis may thus be achieved via customization of neuronutrient supplementation (Putative pro-dopamine regulation) based on the GARS test result developed by our group, dubbed "Precision Addiction Management" (PAM)™ along with a behavioral intervention.

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