

“Metabolic, neuroendocrine and immune function in depression”

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Depression is associated with substantial levels of medical burden, including elevated rates of hypertension, coronary artery disease, and type II diabetes. Mechanisms underlying depression-health relationships are poorly understood, compromising our ability to identify depressed patients at risk for medical morbidity and to reduce levels of medical burden in this population. The proposed supplement will support the integration of biological assessments of metabolic, neuroendocrine, immune and inflammatory markers within an on-going depression treatment study, Depression: The Search for Treatment Relevant Phenotypes (MH65376, E. Frank, PI). The current seed study will provide bridge funds to support this on-going pilot work until receipt of supplemental NIH funding.

The proposed supplement will support the prospective assessment of indicators of the metabolic syndrome (including blood pressure, central adiposity, lipid profiles, fasting glucose/insulin), as well as specific markers of HPA regulation (including early morning cortisol rise and evening cortisol levels), immune competence (including in vitro cytokine production following mitogen stimulation), and circulating inflammatory markers (including IL-6 and CRP) in a sample of 90 depressed adults assessed repeatedly over the course of outpatient depression treatment. Our aims are: (1) To determine which groups of depressed patients are most likely to display significant dysregulation across metabolic, neuroendocrine, immune and inflammatory parameters at pretreatment baseline; (2) To examine whether indicators of metabolic, neuroendocrine, immune and inflammatory function change over the course of successful depression treatment, and (3) To explore the extent to which self-reported health behaviors moderate and/or mediate relationships across psychological variables and physiological risk factors in depressed patients.

Contribution to Understanding Mind-Body Relations: The proposed supplement will allow for the prospective assessment and integration of psychological, biological, and health behavior variables within a group of clinically depressed adults undergoing depression treatment. These areas represent important components of the PMBC model of stress and health, and may help to clarify potential mechanisms underlying depression-health relationships.