INTRODUCTION TO FUNCTIONAL PSYCHIATRY: CORE LABORATORY TESTING AND ANTIDEPRESSANT WITHDRAWAL

September 14, 2022, 8 pm Eastern

CORE LABORATORY TESTING

Biomedical assessments – lab testing, including hair and urine testing, genetic testing, etc. – and physical examinations are not traditionally incorporated into psychiatric assessments. In functional psychiatry, biological testing is a key component of the diagnostic and therapeutic model. Lab test results are used as the basis for developing tailored treatment protocols for patients.

In the first part of this session, we will wade through the abundant hype of laboratory testing for clinicians, discussing the good, the bad, the questionable, and the reliable, separating fad from fact. We will also discuss the specific laboratory assessments that should be run on every patient with depression, providing an illuminated path to personalized treatment plans.

ANTIDEPRESSANT WITHDRAWAL

Psychopharmacology in accordance with a symptom → drug treatment model has become the core of the current approach to psychiatric disorders. Diagnoses are made based on clinical interviews and standardized DSM classifications, and treatments are administered to suppress symptoms with medications.

The current model fails to address many problems: Rates of mental illness worldwide have been *climbing* since the advent of antidepressant medications. Current prescribing models are often utterly devoid of etiologic consideration. There are zero “best practices” regarding safe discontinuation from antidepressants. Research indicates that up to 55% of patients experience significant withdrawal effects when they discontinue antidepressants – numbers with colossal implications. Depression is not the only crisis facing today’s clinicians; we also have before us a crisis of antidepressant dependence, addiction, and withdrawal syndromes.

In the second part of this session, we will objectively review the status quo of the mainstream psychopharm approach to the treatment of depression, appraising the relative risks and benefits of medications, as well as appropriate contexts for medication use in conjunction with a functional medicine model. We will also discuss how to best eliminate side-effects in patients discontinuing antidepressants, using a slow taper and the mitigation of biochemical imbalances as a protocol for discontinuation and the elimination of withdrawal effects.

MACRONUTRIENTS: AMINO ACIDS & DIGESTION

September 28, 2022, 8 pm Eastern

The keystone of mainstream psychiatry's psychopharmacology model is neurotransmitter modulation, i.e., influencing the release, reuptake, or degradation of the nervous system's chemical messengers, affecting brain function, mood, and behavior.

In this session, we will review evidence-based, functional medicine strategies for neurotransmitter modulation. This includes the provision of amino acid precursors (from which neurotransmitters and the enzymes that make them are synthesized), and interventions to optimize digestion (to support healthy protein breakdown and amino acid absorption). We will also explore recommendations for amino acid supplementation for neurotransmitter support and laboratory testing for the assessment of amino acid status.

MACRONUTRIENTS: ESSENTIAL FATTY ACIDS & CHOLESTEROL

October 12, 2022, 8 pm Eastern

The importance of dietary fat – e.g., essential fatty acids (EFAs) and cholesterol - in maintaining physiologic and neurologic health cannot be overemphasized. Although fat has been much maligned over the years, it is an unequivocal scientific fact that essential lipids are necessary for the proper functioning of body and brain. Every aspect of neurotransmission and cell membrane function depends on the bioavailability of essential lipids. Similarly, hormones synthesized from lipid precursors are linchpins of the human neuroendocrine system, which governs many aspects of physiology, stress response, and brain function.

Since the 1970s, mainstream medicine has endeavored to convince the American public that all fat, regardless of type, is injurious to health and should be avoided. This myth has left many deficient in cholesterol and EFAs and/or suffering from imbalances in levels of omega-3 fatty acids to omega-6 fatty acids. Patients suffering from depression are often caught up in this nutritional nightmare. The reality is that EFAs and cholesterol *must* be maintained at healthy levels for cell membranes - and the brain itself - to function properly.

In this session, we will dive into the historic underpinnings of the "anti-fat" mythos of Western medicine. We will review the evidence for the potential neurocognitive benefits of EFAs and cholesterol in maintaining cell membrane fluidity and function, in hormone synthesis, and in facilitating and optimizing neurotransmission. We will also discuss strategies for the assessment of essential lipid status, along with recommendations for EFA and cholesterol repletion to support ongoing depression treatment.

MICRONUTRIENTS: LITHIUM

October 26, 2022, 8 pm Eastern

Whenever the word “lithium” is mentioned in medical or psychiatric circles, it tends to inspire more questions than answers. *Is it safe, or toxic? Is it a medicine, a nutrient, or both?* As with so many other substances found in nature, lithium possess a dyadic association with human biology. At certain concentrations, lithium is toxic to us; at others, it is a healing medicine celebrated since the early 20th century for its ability to stabilize mood. A growing body of research and clinical evidence suggests that this humble mineral may in fact be one of the most promising treatments available for a range of psychiatric and neurodegenerative disorders. In particular, low-dose (i.e., “trace” or “microdose”) lithium has been demonstrated to be of profound therapeutic benefit for many patients with depression and suicidality, exerting mood-stabilizing, neurotransmitter-modulating, and neuroprotective effects when incorporated into functional medicine treatment protocols.

In this session, we will explore the therapeutic potentials of low-dose lithium for the treatment of depression and suicide prevention, elucidating the lithium dose-response curve, highlighting clinical indicators of lithium deficiency, discussing the mechanisms through which lithium can benefit the brain, and providing evidence-based guidelines for dosing and titration.

MICRONUTRIENTS: MAGNESIUM, ZINC, COPPER, and OTHER MINERALS

November 9, 2022, 8 pm Eastern

Essential micronutrients are often overlooked in terms of their importance for sustained physical and mental health, particularly as concerns the human brain. Micronutrients are critical components of many systems supporting neurotransmitter synthesis and cellular energy production. Imbalances in the ratios between certain micronutrients can have significant neuropsychiatric implications. Analysis of key micronutrients thus becomes an integral component of a functional medicine approach to the assessment and treatment of depression.

In this session, we will explore the physiologic and neurochemical functions of key essential minerals, including magnesium, zinc, and copper, and how imbalances in levels of these micronutrients can contribute to depression pathogenesis. We will review empirical evidence supporting associations between magnesium deficiency, zinc deficiency, copper excess, abnormal zinc:copper ratios and mental illness, underscoring the importance of micronutrient testing. We will also discuss guidelines for safe mineral repletion and/or rebalancing.

MICRONUTRIENTS – VITAMINS: VITAMIN D

November 30, 2022, 8 pm Eastern

Vitamin D was once considered to be a nutrient of marginal importance, relevant only to calcium absorption and the development of healthy bones. Following the discovery of vitamin D receptors in cells throughout the body, a multitude of different vitamin D effects have come to light, including robust effects on mental health. Assessment of vitamin D status is rarely incorporated into traditional psychiatric evaluations, a critical omission with potentially profound implications. In light of the body of evidence about vitamin D's direct influence on neurotransmitter synthesis and the neurocognitive consequences of its deficiency, vitamin D is a factor that today's mental health clinicians cannot afford to ignore.

This session will explore vitamin D as a nutrient in which many humans are profoundly deficient, thanks to increasingly indoor-centric lifestyles, artificial lighting, poor diets, and other factors. We will discuss vitamin D's critical role nervous system, with a particular focus on neurotransmitter synthesis. We will explore exogenous and intrinsic factors influencing vitamin D status and review the research corroborating the psychiatric implications of its deficiency. We will also look at the body of research refuting vitamin D's significance to mental health and the methodologic limitations to such studies that undercut the validity of their own assertions. Finally, we will discuss guidelines for vitamin D testing, repletion, and monitoring, as well as lifestyle changes to maximize therapeutic effects for patients with depression.

MICRONUTRIENTS – VITAMINS: FOLATE, VITAMIN B12, and HOMOCYSTEINE

January 4, 2023, 8 pm Eastern

The family of organic compounds known as B vitamins represent a critical component of human health. Together, the B vitamins support many aspects of human biology and act synergistically to maintain and facilitate diverse pathways, ranging from cellular energy and neurotransmitter production to inflammatory modulation and immune regulation.

This session will focus on two members of the B Vitamin family that are vital to neurologic health: folate (vitamin B9) and vitamin B12. We will explore the functions of each vitamin, including methylation pathways and neurotransmitter synthesis. We will review genetic, metabolic, and dietary factors influencing folate and vitamin B12, as well as recent studies demonstrating the often-overlooked neurologic sequelae of B vitamin deficiencies. We will examine the metabolic relationships linking folate and B12 to homocysteine – an amino acid that in excess is neurotoxic.

We will discuss testing of folate, B12, and homocysteine and the relationships linking them that hold great significance for neurologic health. Finally, we will review guidelines for B12 and folate supplementation, aiding biochemical rebalancing to optimize patient outcomes.

NUTRITIONAL AUGMENTATION STRATEGIES FOR ANTIDEPRESSANTS

January 18, 2023, 8 pm Eastern

This session will focus on a functional medicine model for the reduction of side effects in patients taking antidepressant medications. The session will begin with a brief review of pharmaceutical use in mainstream psychiatry, starting with the “Psychopharm Revolution”. We will discuss evidence-based augmentation strategies that can be useful in ameliorating side effects associated with antidepressants, with a focus on zinc, folate (Vitamin B9), and omega-3 fatty acids. We will review nutritional interventions for antidepressant-induced weight gain and sexual dysfunction. This will include specific gene variants associated with medication-induced weight gain.

Finally, we will engage in open-minded conversation about the roles that medications can, do, and should play in today’s ethical and scientific psychiatric practice. Medication is neither a magic-bullet fix nor an “enemy,” but rather one of many tools in today’s therapeutic arsenal that must be utilized in accordance with the mandates of conscientious, personalized medicine.