

# Bioenergetics Advanced Practice Module: Clinical Solutions for Mitochondrial and Metabolic Dysfunction

August 16-18, 2024

Livestream (All times in US Pacific time)

		FRIDAY, AUGUST 16 (DAY ONE)	
TIMES	CE HOURS & CATEGORY		
7:00–8:15 am	1.25 Exam/ Diagnosis	<p><b>Welcome and Introduction to Bioenergetics Module + Deeper Dive into Mitochondrial Dynamics</b></p> <p>Dr. Haase will introduce the scope of the module and demonstrate how to map clinical concerns related to energy regulation onto the Functional Medicine Matrix. He will then dive into the physiology of mitochondrial function and energy production. He will discuss the journey of energy through the cell with a focus on the connections across the Functional Medicine Matrix: assimilation of nutrients, impact of environmental toxins, production of inflammation and reactive oxygen species, intracellular and circulatory system transport of energy, and finally the structural milieu within which this process unfolds.</p>	David Haase, MD Dan Lukaczer, ND
8:15–8:45 am	.5 Principals of Practice	<p><b>Mindfulness in Clinical Practice</b></p> <p>Management of stress and the sympathetic response not only affects hormonal systems, but significantly impacts neurological, biochemical, and other influences that play a role in pain, mood, fatigue, cognition, and metabolic function. Mental, emotional, and spiritual balance form the center of the Functional Medicine Matrix and influence the other biological systems. In “Mindfulness in Clinical Practice,” Monique Class will present various methods for influencing autonomic balance through experiential participation.</p>	Monique Class, APRN
9:30–11:00 am	1.5 Nutrition	<p><b>Optimizing Cellular Energy Production: The Mito Food Plan with Q&amp;A</b></p> <p>“Food First” is one of the key therapeutic approaches that Functional Medicine practitioners follow when supporting patients with energy deficits. This session will review the Mito Food Plan and the importance of foods containing high quality dietary fats and oils, specific phytonutrients, and therapeutic foods involved in mitochondrial function and cellular energy production. In addition, this presentation will discuss the current research on fasting and caloric restriction along with implementation strategies.</p>	Monique Class, APRN
12:30–1:30 pm	1.0 Exam/ Diagnosis	<p><b>Disorders of Bioenergetics - Understanding Fatigue as a Model Manifestation of Mitochondrial Dysfunction with Q&amp;A</b></p> <p>Fatigue has significant connections to energy production and mitochondrial function. This session will cover a range of clinical considerations regarding the functional differentiation and treatment of fatigue. Case examples will be used to demonstrate how to work up a case of fatigue from a functional perspective and demonstrate the application of core Functional Medicine tools: GOTOIT, the Timeline, and the Matrix.</p>	David Haase, MD

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1:30–2:30 pm	1.0 Exam/ Diagnosis	<p><b>Functional Approach to Depression and Anxiety: Clinical Considerations and Case-Based Applications, Part 1</b></p> <p>Underlying antecedents, triggers, and mediators of mental health issues are multifactorial, and the current conventional paradigm does not optimally address the needs of these patients. In Part 1 and Part 2, Dr. Hedaya will cover a range of clinical considerations regarding the functional differentiation and treatment of depression and anxiety. The material will be tied to case examples to demonstrate how to work up cases of depression and anxiety from a Functional Medicine lens through lifestyle interventions, botanical and nutritional supplements, and other functional therapies.</p>	Robert Hedaya MD
3:15–4:45 pm	1.5 Principals of Practice	<p><b>The Centrality of the Therapeutic Encounter with Q&amp;A</b></p> <p>Studies have demonstrated that empathy and compassion are greatly diminished during medical training, decreasing the efficacy of our treatments. This session will focus on practices that can help to generate compassion and strengthen the practitioner-patient relationship. Dr. Raket will help participants understand the importance of the perception of empathy in a therapeutic encounter and will lead interactive exercises to help participants both understand and experience empathy.</p>	David Raket, MD
<b>SATURDAY, AUGUST 17 (DAY TWO)</b>			
7:00–8:00 am	1.0 Exam/ Diagnosis	<p><b>Discernment of Diagnostics for Fatigue and Mitochondrial Dysfunction with Q&amp;A</b></p> <p>Dr. Haase will discuss the differences between primary and secondary mitochondrial disease and clinical presentations of each. He will then go through how to clinically identify individuals with mitochondrial dysfunction using a thorough medical history, physical examination, and laboratory assessment. By understanding and identifying the root causes of imbalance in energy production, practitioners will be able to begin to develop effective personalized therapies.</p>	David Haase, MD
10:15–11:30 am	1.25 Exam/ Diagnosis	<p><b>Delivery of Treatment for Fatigue and Mitochondrial Dysfunctions with Q&amp;A</b></p> <p>Dr. Haase will reiterate the importance of a thorough medical history, physical examination, and laboratory assessment in identifying individuals with mitochondrial dysfunction. He will then discuss multifaceted approaches to mitochondrial dysfunction, using case examples along the way. By understanding and identifying the root causes of imbalance in energy production, practitioners will be able to develop and execute effective personalized therapies.</p>	David Haase, MD

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1:00–2:45 pm	1.75 Exam/ Diagnosis	<p><b>Functional Approach to Neurodegenerative Disorders: Clinical Considerations and Case-Based Applications and Q&amp;A</b></p> <p>This session walks through an approach to clinically evaluate and improve systems impacted by neurodegenerative conditions, including the use of laboratory testing and a personalized treatment approach directing support to improve system function in the context of the whole organism. Dr. Wahls will present an interactive, skill-building session on how to uncover deficits in energy production using a Functional Medicine evaluation.</p>	Terry Wahls, MD
3:30–4:15 pm	.75 Exam/ Diagnosis	<p><b>Exercise, Mitochondrial Health, and Longevity</b></p> <p>Exercise is a key foundational lifestyle factor for mitochondrial health. In this session, Monique Class will discuss exercise and movement as it relates to neurochemical changes, improvements in cognition, healthy aging, and mitochondrial biogenesis. She will also dive into clinical considerations when prescribing exercise for conditions involving mitochondrial dysfunction, including exercise type and intensity as well as the risks of overtraining.</p>	Monique Class, APRN
4:20–4:50 pm	.5 Principals of Practice	<p><b>Incorporating Therapeutic Pearls into the Clinical Encounter</b></p> <p>This session is a conversation on the healing power of empathy and human connection in the clinical encounter. Dr. Raket asks the other educators how they navigate difficult clinical encounters while still maintaining an empathic perspective and avoiding clinician burnout. These discussions explore why practicing compassion and empathy to others and ourselves allows us as clinicians to most effectively develop and encourage productive, successful treatment outcomes.</p>	David Raket, MD
<b>SUNDAY, AUGUST 18 (DAY THREE)</b>			
7:00–9:00 am	2.0 Exam/ Diagnosis	<p><b>Functional Approach to Depression and Anxiety: Clinical Considerations and Case-Based Applications, Part 2 with Q&amp;A</b></p> <p>Underlying antecedents, triggers, and mediators of mental health issues are multifactorial, and the current conventional paradigm does not optimally address the needs of these patients. In Part 1 and Part 2, Dr. Hedaya will cover a range of clinical considerations regarding the functional differentiation and treatment of depression and anxiety. The material will be tied to case examples to demonstrate how to work up cases of depression and anxiety from a Functional Medicine lens through lifestyle interventions, botanical and nutritional supplements, and other functional therapies.</p>	Robert Hedaya, MD

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<p><b>9:45– 10:45 am</b></p>	<p><b>1.0 Exam/ Diagnosis</b></p>	<p><b>Roundtable Discussion: Mitochondrial Health and Foundational Lifestyle Factors</b> This session will continue the discussion on foundational lifestyle factors with an emphasis on the therapeutic encounter, exercise, and sleep. This roundtable discussion will include case-based vignettes and clinical experiences from the educator panel.</p>	<p>Monique Class, APRN David Rakel, MD David Haase, MD</p>
<p><b>10:50– 11:50 am</b></p>	<p><b>1.0 Exam/ Diagnosis</b></p>	<p><b>Roundtable Discussion: Mitochondrial Essentials and a Clinical Focus on Pain and Fatigue</b> This session will continue to explore the topic of chronic fatigue and pain. Panelists will discuss practical applications and indications for addressing mitochondrial dysfunction.</p>	<p>David Haase, MD Terry Wahls, MD Dan Lukaczer, ND</p>
<p><b>12:00 – 12:30 pm</b></p>	<p><b>.5 Principals of Practice</b></p>	<p><b>The Clinician’s Journey Incorporated into Practice</b> Dr. Wahls will share her personal health journey and emphasize the importance of discovering one’s own mission statement and self-narrative to help support patients in the identification of their own goals and encourage them to invest in their own healing. The significance of exploring the center of the Functional Medicine matrix and enhancing resilience will be highlighted.</p>	<p>Terry Wahls, MD</p>