

# FUNCTIONAL MEDICINE SERIES

WITH INDUSTRY EXPERT  
CHERYL BURDETTE, ND



**JULY 13, 2019**  
Gastrointestinal Health

**SEPTEMBER 21, 2019**  
Liver and Detox

**DECEMBER 14, 2019**  
Hormone Interaction

**MARCH 21, 2020**  
Neurological Health

## Chicago Marriott Magnificent Mile

540 N Michigan Ave  
Chicago, IL 60611

9:00 a.m. – 4:00 p.m.

### Full Event Series

Practitioner \$575  
Staff & Student \$430  
Early Bird: Save \$100!  
*Register by June 11*

### Individual Events

Practitioner \$169  
Staff & Student \$139  
Early Bird: Save \$25!  
*Register one month in advance*

Refunds available for cancellations  
up to 2 weeks before event

**RSVP KEVIN FINNEGAN**  
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**XYMOGEN brings you this exclusive certification series, featuring insights by functional medicine expert Dr. Cheryl Burdette.**

Dive deep into nutritional interventions that will enhance your understanding of patients challenged by insulin regulation and responses to oxidative stress. Explore neurotransmitter testing, oxidative stress markers and common markers from a chemistry screen and CBC to understand relationship to brain health. Integrating science and technology from sources around the world to improve the health of your patients.\*

Fundamental to the alterations of function of the central nervous system is the presence of a hostile intra-cerebral milieu. Inflammation is now commonly recognized as a pivotal feature spanning diverse neurological conditions under vascular dementia.\*

**During this event, you will discover compelling topics, including but not limited to:**

- Cardiovascular Markers, Including Oxidized LDL, and a Review of Lipids and Lipid Particles such as Lp(a), Buoyancy Patterns and ApoB\*
- Review of Nrf2, Percent-Reduced Glutathione, Isoprostane, TBARS, 8-OHdG, SOD I, SOD II, and Glutathione Peroxidase\*
- Metabolic Markers, Such as Glucose, HbA1c, Insulin, Ferritin, Interleukin 2, HS-CRP, and Adiponectin Fatty Acid Interpretation\*
- The role of modifiable factors involved in the inflammatory cascade and how these factors relate to specific neurological conditions\*
- The strengths and weaknesses in the science of testing neuro transmitters, their precursors, and metabolites\*

See additional module details on reverse side ▶▶▶▶

**Space is limited, secure your spot today!**

\*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

**Cheryl Burdette, ND**, is chief scientific advisor of Dunwoody Labs. She is the educational director and a clinician and runs a residency program for NDs at Progressive Medical, one of the largest integrative clinics in the country. Dr. Burdette serves on IRBs and is an author of the book Laboratory Evaluations of Molecular Medicine. Dr. Burdette lectures extensively nationally and internationally. She graduated from Bastyr University in 2001, and she completed her residency at Cancer Treatment Centers of America. The marriage of her laboratory directorship and clinical practice gives her a unique perspective in functional medicine treatment and testing.



## **MODULE 1 Gut Based Protocols**

The gut is the major interface to the outside world. It is our first line of defense as well as where our first exposure happens. It is where we decide if we are immune tolerant of the world or inflamed by the world. Recent research by Dr. Fassano demonstrates that the inflammatory contribution from the gut results in a host of systemic conditions, from neurological to auto-immune but even contributing to diabetes and some cancers. He also affirms that movement away from a disease centered paradigm is possible by recognizing underlying processes that are occurring before pathology is evident. The gut is our window to prevention and remission. By addressing the triggers of histamine, pathogens and food sensitivities, as well as the body's ability to handle the assault, through enzymes such as diamine oxidase that degrade histamine, we can halt inflammation and truly practice healthcare and promote wellness. This will further the practitioner's knowledge and practice as the knowledge of biomarkers and treatment and their meaning in clinical practice. Oral immunoglobulin therapy, strains of probiotics and other innovative therapies are specific for targeting the cause of permeability or alterations in gut based production or enzymes such as diamine oxidase. This lecture will enhance knowledge around the area of gut and its interplay between obesity, diabetes, and neuroendocrine dysfunction further widening our tools for treatment.

### Objectives:

To understand the extensive influence the gut has on a myriad of pathologies not limited to the GI system.

We will review the systemic inflammatory pathways that are triggered from gut health.

To understand and be able to actualize the use of biomarkers such as Zonulin, Diamine oxidase, stool culture assessment and food sensitivity assessment as they result to inflammatory process and pathology.

Review the research and evaluate the strength of the literature as it applies to natural treatments and successful natural modulation of these markers.

## **MODULE 2 Putting Your Detox Tools Together: From Pieces to Programs, XYMOGEN Blockbusters and Detox**

Given the ever-increasing number of chemicals in our environment, it has been an increased problem for clinicians and patient care. We are now learning that mercury, even trace amounts such as those found in fish, can act like a haptan to ignite our immune system. When we are exposed to chemicals like glyphosate a common pesticide in foods, slows some liver enzymes and increases others. These chemicals are not only associated with auto-immunity but certain cancers as well. A system that has a toxic body burden will respond less favorably to almost any therapy. By helping patients lower their total toxic body burden, many conditions will improve. Toxins slow every enzymatic reaction in the body, and skew how we absorb, utilize and store important minerals such as Magnesium and Zinc. The rate at which certain chronic diseases have increased in Western society are at rates that are too quick to be explained by genetic shift. The increasing rates of auto-immunity, weight gain, diabetes, fatigue, hypercholesterolemia all have an environmental component. Successful patient care in today's planet requires successful understanding of how to help the

patient lower exposure and removal of chemicals and metals. Part I Detox will help the clinician understand detoxification protocols, as well as improve assessment and evaluation of who will respond best to these interventions. Lowering the toxic load will improve many aspects of health, slowing aging, and therefore conditions of aging such as heart disease, osteoporosis, fatigue and more.

## **MODULE 3 The Hormonal Axis: The Interactions Between Adrenal, Thyroid and Reproductive Hormones**

Hormones are more than a stand-alone molecule. Even more so than the molecule they are, is the environment they exist in and the cross-talk between them. The functional medicine community is at the forefront of understanding the complexity of hormones and their importance. This lecture will examine how the cross-talk between adrenal, thyroid and reproductive hormones influences the story they tell. We will also look at how the exact same hormone can have one action in an inflammatory environment and the opposite in an environment of reduced oxidative stress. We will examine how a thyroid hormone behaves differently in a low or high cortisol environment, as well as other interactions that hormones have. We will examine the web and matrix that hormones construct, rather than a focus on their singular dimension, to better understand their complexity and how to best help our patients.

Often when patients are sick, they feel there is one test with one answer. Careful examination of the patterns between hormones and their activity based on their environment help us to communicate to our patients how a successful approach warrants a whole person approach. Reductionist models have failed. This lecture focuses on the science behind integrative hormone therapy and why it matters.

While one way to manage hormonal complaints is with hormones themselves, it is certainly not the only way, and often not the best way. We will look at nutritional protocols and interventions that can be used to improve adrenal, thyroid, and reproductive hormone function, and increase safety of hormonal therapies that are being used.

## **MODULE 4 Central to Peripheral Nervous System; From Anxiety to Parkinson's, How to Increase Brain Health**

Fundamental to the alterations of function of the central nervous system is the presence of a hostile intra-cerebral milieu. Inflammation is now commonly recognized as a pivotal feature spanning diverse neurological conditions under vascular dementia.

The role of modifiable factors involved in the inflammatory cascade and how these factors relate to specific neurological conditions

Advanced clinical tools for the neuro-cognitive assessment of the healthy who desire to stay healthy, vs the brain-challenged who desire to be well

The strengths and weaknesses in the science of testing neuro transmitters, their precursors, and metabolites.

Review common laboratory markers used to assess brain health. We will look at neurotransmitter testing, oxidative stress markers and common markers from a chemistry screen and CBC to understand relationship to brain health.

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