

**Module Three Course Syllabus**  
**Neurological Autoimmunity Clinical Strategies and Treatment Applications**  
**Kharrazian Institute**

**Course Title:**

Neurological Autoimmunity Clinical Strategies and Treatment Applications

**General Schedule:** November 9 – 10 from 9 am – 5:30 pm

**Instructor:** Datis Kharrazian, PhD, DHSc, DC, MS, MMSc, DACNB, DACBN, FACN

**Location:**

Hilton Garden Inn Carlsbad Beach

6450 Carlsbad Blvd.

Carlsbad, CA

**Course Description**

This course will provide an extensive literature review of neurological autoimmunity. An evidence-based model incorporating diet, nutrition, and lifestyle medicine will be presented. Clinical applications of cross-reactivity, oral tolerance, microbiome diversity, and immune modulation will be highlighted.

**Learning Objectives:**

1. A basic review of immunology
2. Review the fundamental concepts of neurological autoimmunity
3. Review the scientific literature for nutrients, dietary approaches, and lifestyle factors that impact neurological autoimmune diseases
4. Understand T-cell, B-cell, and antibody laboratory testing
6. Learn clinical history and physical examination findings found with neurological autoimmunity
7. Learn a clinical approach to managing neurological autoimmunity with a functional medicine model

## Module Three Program Schedule

### Day 1 – November 9, 2019

#### 9 am – 10:30 am: Review of basic autoimmunity

- The role of cell-mediated and humoral immunity
- The complement system
- The role of antibodies
- The role of the intestinal and blood-brain barriers

#### 10:30 am – 11 am: Break

#### 11 am – 12:30 pm: Fundamental concepts of neurological autoimmunity

- Molecular mimicry/cross-reactivity
- Immunological tolerance
- Concepts of neuroinflammation

#### 12:30 pm – 1:30 pm: Lunch

#### 1:30 pm – 3 pm: History, examination, and general laboratory findings with neurological autoimmunity

- Fundamental medical history findings associated with neurological autoimmunity
- Typical patterns reflective of autoimmunity with standard blood tests
- Examination findings of demyelination throughout various regions of the central and peripheral nervous system

#### 3 pm – 3:30 pm: Break

#### 3:30 pm – 4:30 pm: Evidence-based diet, nutrition, and lifestyle approaches to neurological autoimmunity

- Dietary research on neurological autoimmunity
- Nutritional research on neurological autoimmunity
- Lifestyle research on neurological autoimmunity

#### 4:30 pm – 5 pm: Break

#### 5 pm – 5:15 pm: Review of Day 1

#### 5:15 pm – 5:30 pm: Questions

**Additional assignment:** 1.5 hours at-home reading research paper and online exam questions

## **Day 2 – November 10, 2019**

### **9 am – 10:30 am: How to implement concepts of cross-reactivity into clinical practice**

- Principals of cross-reactivity including amino acid sequence homology and topographical antibody binding homogeneity
- Dietary proteins, antigens, and chemicals that cross-react with neurological target proteins

### **10:30 am – 11 am: Break**

### **11 am – 12:30 pm: How to incorporate concepts of immune modulation into clinical practice**

- The role of the microbiome in immunity
- The role of oral tolerance in autoimmunity
- A functional medicine/systems biology approach to immune modulation

### **12:30 pm – 1:30 pm: Lunch**

### **1:30 pm – 3 pm: Key principals in neurological autoimmunity management**

- Concepts of plasticity versus neurodegeneration
- Essential principles for monitoring patients with neurological autoimmunity
- The role of occupational rehabilitation in neurological autoimmunity

### **3 pm – 3:30 pm: Break**

### **3:30 pm – 4:30 pm: Case Studies**

- Three case studies
- Clinical principles learned from case studies

### **4:30 pm – 5 pm: Break**

### **5 pm – 5:15 pm: Review of Day 1**

### **5:15 pm – 5:30 pm: Questions**

**Additional assignment:** 1.5 hours at-home reading research paper and online exam questions