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# Mind-Body Seminar Series

## Professional Enrichment Course

### 2022-2023

Course Dates:

October 2022—April 2023  
Noon-1pm

Class Year: MS1

Course Director: Alex J. Israel, MD  
Attending Physician, Medical  
Student Education, Department of  
Psychiatry

Contact Information: Alex J. Israel, MD  
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Description:

This seminar series focuses on psychosomatic medicine, the interconnections between “mind” and “body” that affect the care of patients in various medical specialties. Scheduled in conjunction with other first-year medical school courses, this mini-elective highlights behavioral and psychiatric aspects of core scientific areas such as neuroscience, genetics, and immunology. All of these disciplines relate to behavioral health, and in this series we will explore those connections.

Each seminar will be led by psychiatry residents and faculty who will present relevant topics informally and invite discussion about clinical challenges in mind-body medicine, particularly how what we know and learn about the basic science of illness translates into the assessment and management of real patients. This elective builds on first-year courses (especially Behavioral Medicine and Introduction to Psychiatry) and better prepares students for clinical encounters in third-year.

Readings will be suggested but not required; handouts or other materials may be distributed at sessions.

This professional enrichment course will be open to all students, not exclusive to those who register.

Objectives:

- Show medical students how the basic science of medicine can inform the understanding and management of mental health conditions
- Help medical students appreciate the relevance and value of psychiatry in medicine

Requirements:

- Attend at least 3 out of 5 scheduled course sessions
- Participate actively in class discussions
- Complete course evaluations

**COURSE OUTLINE:  
MS-I Mind-Body Seminar Series**

**Course Director:**  
**Alex Israel, MD**  
Attending Physician  
Dept. of Psychiatry (Consultation-Liaison)  
Western Psychiatric Hospital

**Participating Faculty:**

**Chad Donahue, MD**  
Co-Chair, Mind Body Seminar Series  
PGY-2 Resident, General Adult Psychiatry

**Erin Driscoll, MD**  
Co-Chair, Mind Body Seminar Series  
PGY-2 Resident, General Adult  
Psychiatry

**Location:**

**All sessions** will be held in **Room 514, Scaife Hall** from 12:00-12:55pm unless otherwise posted.

**Dates & Corresponding Courses:**

**Tuesday, October 25<sup>th</sup> 2022 – Genetics**

**Tuesday, November 8<sup>th</sup> 2022 – Fuel Metabolism**

**Tuesday, December 13<sup>th</sup> 2022 - Immunology**

**Tuesday, March 7<sup>th</sup> 2023 – Microbiology**

**Tuesday, April 18<sup>th</sup> 2023 – Neuroscience**

**Sample Session Topics:**

**Genetics:**

The genetics of psychiatric disorders are complex; illnesses like schizophrenia and major depression have multifactorial etiologies. However, genetic factors have been linked to a range of illnesses, from autism to Alzheimer's. In this session, we'll review what genetics can tell us (and perhaps what it cannot) about the cause of mental illness.

**Suggested readings:**

Eapen V. Genetic basis of autism: is there a way forward? *Curr Opin Psychiatry* 2011;24:226-36.

Glorioso C, Sibille E. Between destiny and disease: genetics and molecular pathways of human central nervous system aging. *Prog Neurobiol.* 2011;93:165-81.

**Fuel Metabolism:**

The medications used to treat psychiatric disorders are metabolized through a variety of pathways, which become clinically relevant in the setting of drug-drug interactions, medical problems affecting metabolism (e.g., liver disease, renal impairment), and aging. Additionally, several major classes of psychotropic agents (e.g., second-gen antipsychotics) exert profound effects on fuel metabolism, leading to a variety of adverse effects that are clinically relevant and a major reason for discontinuation.

**Suggested readings:**

Brooks JO 3rd, Chang HS, Krasnykh O. Metabolic risks in older adults receiving second-generation antipsychotic medication. *Curr Psychiatry Rep.* 2009;11(1):33-40.

Ferentinos P, Dikeos D. Genetic correlates of medical comorbidity associated with schizophrenia and treatment with antipsychotics. *Curr Opin Psychiatry.* 2012;25(5):381-390.

## **Immunology:**

Stress causes an immune response, which affects health in various ways. Inflammation contributes to cardiac risk in depressed individuals. People who have autoimmune-related thyroid problems are more likely to suffer from depression and anxiety. What exactly are the connections between the immune system and the central nervous system, and how do we think about these connections when assessing and managing patients with behavioral health or other conditions?

### **Suggested readings:**

Raison CL, Cowles MK, Miller AH. Immune system and central nervous system interact. Chapter 1.13 in *Kaplan and Sadock's Comprehensive Textbook of Psychiatry* 9<sup>th</sup> edition. Eds. BJ Sadock, VA Sadock, P Ruiz (Lippincott: Philadelphia, 2009). Focus on the section entitled, "Relevance of immune-CNS interactions to psychiatric disorders."

<http://www.hsls.pitt.edu/resources/books/ebooks?s=Psychiatry>

## **Microbiology:**

Recent evidence has suggested that brain disorders like schizophrenia may have an infectious etiology, reflecting a gene/environment interaction. What organisms are involved, and how do they affect the brain? Numerous other infectious diseases have fascinating neuropsychiatric sequelae: chronic Lyme Disease sufferers who develop chronic fatigue, kids status post streptococcal infection who develop obsessive-compulsive disorder, prion disease and dementias, and of course the ravages of tertiary syphilis. Or, looked out from another perspective, how can behavioral health interventions help reduce the spread of HIV? Join us for this discussion of bugs and brains.

### **Suggested readings:**

Kim SW, Grant JE et al. A possible association of recurrent streptococcal infections and acute onset of obsessive-compulsive disorder. *J Neuropsychiatry Clin Neurosci*. 2004; 16:252-60.

<http://neuro.psychiatryonline.org/cgi/content/full/16/3/252>

Brown AS, Derkits EJ. Prenatal infection and schizophrenia: a review of epidemiologic and translational studies. *Am J Psychiatry*. 2010; 167:261-80.

<http://ajp.psychiatryonline.org/cgi/content/full/167/3/261>

## **Neuroscience:**

Although both disciplines involve different ways of considering the brain and nervous system illness, neurology and psychiatry are closely related. Mind-body issues in neuroscience include epilepsy and personality type, neuropsychiatric sequelae of movement disorders, and neuro-oncology (e.g., "of course they're depressed—wouldn't you be?").

### **Suggested readings:**

Alllet JL and Alllet RE (2006). Somatoform disorders in neurological practice. *Curr Opin Psychiatry* 19:413-20.

Garcia-Morales I, de la Pena M, and Kanner AM (2008). Psychiatric comorbidities in epilepsy: identification and treatment. *Neurologist* 14(Suppl1):S15-25.

Geschwind, N (2009). Personality changes in temporal lobe epilepsy. *Epilepsy & Behavior* 15:425-433.

### **Optional Series Reading:**

Sadock BJ, Sadock VA, and Ruiz P (eds). *Kaplan & Sadock's Comprehensive Textbook of Psychiatry* (9<sup>th</sup> edition). See Chapter 24: Psychosomatic Medicine (Lippincott: Philadelphia, 2009). Access through HSLs e-books.

Levenson JL (ed). *The American Psychiatric Publishing textbook of psychosomatic medicine* (American Psychiatric Publishing: Washington, DC, 2005).

Falk Library - [q WM 90 A512 2005](#)

Wyszynski AA and Wyszynski B (eds). *Manual of psychiatric care for the medically ill* (American Psychiatric Publishing: Washington, DC, 2005).

Falk Library - [WM 400 W995m 2005](#)