Mind-Body Seminar Series
Mini-Elective
2020-2021

Course Dates: November 2020—April 2021
Noon-1pm

Class Year: MS1

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

Contact Information: Alex J. Israel, MD
israelaj@upmc.edu

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 mini-elective 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 Institute and Clinic

Participating Faculty:

Meghan Keil, MD
Co-Chair, Mind Body Seminar Series
PGY-2 Resident, General Adult Psychiatry

Peter Schartel, MD
Co-Chair, Mind Body Seminar Series
PGY-2 Resident, General Adult Psychiatry

Location:
All sessions will be held virtually from 12:00-12:55pm (links to be emailed prior to session)

Dates & Corresponding Courses:
Tuesday, November 3rd 2020 – Genetics
Tuesday, November 17th 2020 – Fuel Metabolism
Tuesday, December 8th 2020 - Immunology
Tuesday, March 9th 2021 – Microbiology
Tuesday, April 27th 2021 – 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.

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

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

**Neuroscience:**
Although both disciplines involve different ways or 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:**


**Optional Series Reading:**

Falk Library - q WM 90 A512 2005

Falk Library - WM 400 W995m 2005