

NEUROSCIENCE CURRICULUM INTEGRATION

Georgetown University

Mayada Akil, MD

OVERVIEW

Our program is a midsize program with seven residents a year. Each class has a half day of protected time for didactics. While we have research faculty at our University who conduct neuroscience or translational research, they usually have a very specific focus and are often not used to speaking to clinical audiences. They tend to have a very limited role in our residency training curriculum. NNCI teaching modules are, therefore, very valuable tools for us. NNCI modules are usually taught by the program director or senior residents who receive a brief training at the beginning of the year on how to use the modules. The hope is to expand the pool of facilitators to junior faculty.

The curriculum for the first year is divided into seven blocks with recurrent elements based on milestones. These elements include: knowledge base, clinical skills, psychotherapy, neuroscience, clinical interview, journal club, writing and presentation workshop, diagnosis and treatment workshop, difficult patient workshop, mini PRITE and reflection. The content varies from block to block but the elements are the same. Since PGY1s on neurology and medicine services are unable to attend didactics, there are always residents missing and this block design allows them to benefit from the curriculum despite missing some of the blocks

The curriculum in the PGY2-4 years tend to run in discrete blocks, for example "schizophrenia and psychotic disorders" or continuous seminars, for example: "psychodynamic case conference".

There is a Neuropsychiatry and Clinical Neuroscience series that runs throughout the 4 years as described below:

NEUROSCIENCE CURRICULUM

PGY1: Within the block schedule as described above:

1. "Who are you" and [Fundamentals of Neuroscience: 3D Brain App](#)
 2. [Fundamentals of Neuroscience: PlayDoh Brain \(3D brain again for those who were not there the first time\)](#)
 3. [Fundamentals of Neuroscience: find it draw it know it: Fear circuitry](#)
 4. [Clinical Neuroscience Conversations: Epigenetics and trauma](#)
 5. Neurobiology of anxiety: an NIMH educational module
 6. Diagnosis & treatment workshop: Neurocognitive disorders
 7. Diagnosis & treatment workshop: Neurodevelopmental disorders
 8. Clinical skills: Dementia / agitation psychopharmacology
 9. Neurobiology of anxiety
 10. Clinical neuroscience: MRI in psychiatry
- "Who are you" is a brief discussion I do with PGY1s to reflect on their identity as a psychiatrist. The relevance here is that the identity of a psychiatrist includes being a clinical neuroscientist.

PGY2:

1. [Clinical Neuroscience conversations: Aud hall](#) (alongside the schizophrenia block)
2. [Cognitive deficits in schizophrenia: an NIMH educational module](#) (alongside the schizophrenia block)
3. [Neuroscience Lab: Affect Regulation](#) (alongside the mood disorders block)
4. Clinical Neuroscience conversations: Early life care (alongside the mood disorders block)
5. [Translational Neuroscience: Bipolar Disorder](#) (alongside the mood disorders block)
6. [Integrative Case Conference: PTSD](#)
7. Neuropsychiatry: Epilepsy
8. Neuropsychiatry: Multiple sclerosis
9. Neuropsychiatry: Neurocognitive disorders
10. Neuropsychiatry: TBI
11. Neuropsychiatry: Movement disorders
12. Cognitive deficits in schizophrenia
13. Neuropsychological testing
14. Neuropsychiatry for the general psychiatrist

PGY3:

1. [Progressive Case Conference: Autism Spectrum](#)
2. [Translational Neuroscience: Alzheimer's Disease](#)
3. We have a weekly journal club throughout the year. Residents choose the paper they wish to present within certain guidelines. We frequently use TSIRC Lecture Series as an inspiration to select the paper and the video is shown.
4. Neuropsychiatry: Conversion disorders
5. Neuropsychiatry: TBI
6. Adult ADHD and neuropsychological testing
7. Neuropsychiatry for the general psychiatrist
8. Somatic therapies and neuromodulation

PGY4:

1. Advanced neuropsychiatry for the general psychiatrist
 2. Neuropsychiatry: TBI (2)
 3. Advanced psychopharmacology: Neuropsychiatry
- PGY4s are often asked to teach NNCI modules or use the model to teach other topics. They receive training in "Adult Learning", and "Instructional Methods in Medical Education"