Learning Objectives:

1. Learn recent advances in the neurobiology of ADHD
2. Review details of recently introduced medications
3. Propose best practices in ADHD diagnosis
4. Update scientific evaluation of treatment strategies such as combination therapy and cognitive training techniques.
5. Discuss and evaluate the clinical practices that improve the lives of children and adults with ADHD.

ADHD Best Practices

1. Clinical care requires measurement of status

   1. Baseline data set
   2. Progress retest
   3. Symptom score reduction

2. Best practices in ADHD diagnosis

   1. Clinical exam: the gold standard
   2. Adjunct testing: confirmatory, not determinative
   3. ADHD cannot be ruled out
   4. Identification of co-morbidities
   5. Emotional dysregulation
3. Recent neurobiology

1. The causes of ADHD are no longer unknown.

2. ADHD is a disability with no known strengths.

3. ADHD medications are the only known treatment that normalizes brain function

4. New medications

1. Extended-release formulations

   1. 16-hour amphetamine

   2. 10-12-hour amphetamines

   3. Overnight time release

2. Non-stimulants

   1. Dasotraline

   2. Metadoxine

3. L-methylfolate

4. On the horizon
5. **Treatment strategies**

1. Medication is first-line treatment
   
   1. There is not a best medicine
      
      1. Pharmacogenetics
      
      2. Comorbidities
      
      2. The decision to treat with medication cannot be made prior to at least one “N-of-one” clinical trial

2. Psycho-social support

   1. Psychotherapy-first algorithms
   
   2. Psychotherapy as adjunct
   
   3. Treatment concept is broadening

3. Combination therapy

   1. Stimulant-ATMX
   
   2. Stimulant-GXR or CXR
   
   3. Stimulant-anti-depressant
   
   4. ATMX-GXR
5. ATMX-anti-depressant

4. Non-stimulant priority algorithm
   1. Lengthy trial of non-stimulant
   2. Measurement of residual symptoms
   3. Addition of low-dose stimulants to address residual symptoms

5. Nutrition

6. Clinical Pearls
   1. Women's issues
      1. Hormone consistency
      2. Menopause
      3. Pregnancy
   2. ADHD and anxiety
   3. ADHD and ASD
   4. Etc.