

# Decoding the Autistic Brain

## DAY 1: NEUROPLASTICITY AND THERAPEUTIC INTERVENTION OF AUTISM

DATE: APRIL 13, 2016  
TIME: 8:30AM - 4:30PM

### COURSE DESCRIPTION:

The course will blend cutting edge neurobiology with treatment strategies supporting clinicians and educators who serve the Autism Spectrum Disordered (ASD) population. Deeper and current understanding of the mechanisms of the brain-body science of ASD allows therapists to create evidence informed choices of treatments for individual clients across a wide range of treatment modalities.

### LEARNING OBJECTIVES:

1. The learner will develop a preliminary understanding of the current science of genetic/ environmental interaction in the development of ASD.
2. The learner will develop a preliminary understanding of the neurotransmitters involved in Autism Spectrum Disorder.
3. The learner will develop a preliminary understanding of the translational research of how neuroscience affects cognitive and therapeutic intervention.
4. The learner will develop a preliminary understanding of the research of how neurons interact with one another in the ASD brain.
5. The learner will develop a preliminary understanding of neuroplasticity and how it informs teaching and treatment principles.
6. The learner will begin to understand the science of sensory regulation.

### AGENDA:

8:30-10:30	Is it nature or nurture? The new science of epigenetics and how genes and the environment work together
10:30-10:45	Break
10:45-12:15	The soup of brain chemicals in Autism
12:15-1:00	Lunch on your own
1:00-2:00	How does this knowledge affect my teaching/treatment? Does teaching/therapy affect neurochemistry and genetics?
2:00-3:00	Neurons that Fire together Wire together Neuronal Connectivity in Autism
3:00-3:15	Break
3:15-4:30	Sensory Processing, Neuroplasticity and therapeutic intervention. Brain changes within different frames of reference: RDI, TEACCH, Social Thinking, ABA etc.



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## DAY 2: SELF REGULATION, STRESS AND IMMUNE SYSTEM OF AUTISM

DATE: APRIL 14, 2016  
TIME: 8:30AM - 4:30PM

### COURSE DESCRIPTION:

The course will blend cutting edge neurobiology with treatment strategies supporting clinicians and educators who serve the Autism Spectrum Disordered (ASD) population. Deeper and current understanding of the mechanisms of the brain-body science of ASD allows therapists to create evidence informed choices of treatments for individual clients across a wide range of treatment modalities.

### LEARNING OBJECTIVES:

1. The learner will develop an advanced understanding of how the immune system and the brain interact and how this affects behavior
2. The learner will develop an advanced understanding of how regulation of the autonomic nervous system affects the immune systems
3. The learner will develop an advanced understanding of the science of sensory regulation
4. The learner will develop advanced techniques to support regulation (sensory, cognitive and emotional)

### AGENDA:

8:30-10:30	Exploring the links between autism, the immune systems and the brain
10:30-10:45	Break
10:45-12:15	How stress affects the immune system
12:15-1:00	Lunch on your own
1:00-2:30	How regulation through the sensory systems can affect the stress response
2:30-2:45	Break
2:45-4:30	Treatment techniques that support regulation: sensory, cognitive and emotional



# Decoding the Autistic Brain

## DAY 3: RELATIONSHIP-BASED AND COGNITION-BASED INTERVENTION STRATEGIES FOR AUTISM

DATE: APRIL 15, 2016  
TIME: 8:30AM - 4:30PM

### COURSE DESCRIPTION:

The course will blend cutting edge neurobiology with treatment strategies supporting clinicians and educators who serve the Autism Spectrum Disordered (ASD) population. Deeper and current understanding of the mechanisms of the brain-body science of ASD allows therapists to create evidence informed choices of treatments for individual clients across a wide range of treatment modalities.

### LEARNING OBJECTIVES:

1. The learner will develop advanced understanding of the science of attunement and how it supports regulation and learning.
2. The learner will develop advanced understanding of the neuroscience of theory of mind and social thinking
3. The learner will develop advanced appreciation of current research with respect to executive functions and the ASD population

### AGENDA:

8:30-10:30	The science of Attunement in ASD (DIR, RDI, Dragonfly, Dynamic Maturation Model, ABA)
10:30-10:45	Break
10:45-12:15	The science of attunement in ASD, continued
12:15-1:00	Lunch on your own
1:00-2:30	Theory of mind and social thinking
2:30-2:45	Break
2:45-3:30	Executive Functioning
3:30-4:30	Attunement and cognitive strategies



# Decoding the Autistic Brain

## DAY 4: SENSORY PROCESSING INTERVENTION AND MOTOR INTERVENTION FOR AUTISM

DATE: APRIL 16, 2016  
TIME: 8:30AM - 4:30PM

### COURSE DESCRIPTION:

The course will blend cutting edge neurobiology with treatment strategies supporting clinicians and educators who serve the Autism Spectrum Disordered (ASD) population. Deeper and current understanding of the mechanisms of the brain-body science of ASD allows therapists to create evidence informed choices of treatments for individual clients across a wide range of treatment modalities.

### LEARNING OBJECTIVES:

1. The learner will develop an advanced understanding of sensory processing in the autistic brain. (Sensory processing intervention, therapeutic listening, integrated listening system, Irlen)
2. The learner will develop an advanced understanding of the science of sensory processing intervention for the child with autism
3. The learner will develop an advanced understanding of the brain parts involved in motor control in autism
4. The learner will develop an advanced awareness of how therapy affects the motor systems in clients with autism

### AGENDA:

8:30-10:15	Sensory Processing and the Autistic Brain
10:15-10:30	Break
10:30-12:00	How does sensory processing intervention work for people with autism?
12:00-12:45	Lunch on your own
12:45-2:30	Motor Areas of the Autistic Brain
2:30-2:45	Break
2:45-4:30	How does motor intervention in treatment support people with autism?

