



## 2020 Distinguished Public Lecture

*Processing the Mysterious World Around Us:*

# Insights into the Neurobiology of Autism

## Ted Abel, PhD

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Chair & DEO, Department of Neuroscience & Pharmacology  
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**March 31, 2020  
HSU Ballroom I  
1604 Campus UTSA**

**5:00p Reception  
5:30p Lecture**

public welcome

Autism impacts 1 in 50 children, with boys 4 times more likely to be diagnosed than girls. It is a complex disorder characterized by repetitive behaviors, restricted interests and deficits in language and social communication. Research has revealed that genes linked to autism spectrum disorders regulate the function of connections between neurons in the brain.

Dr. Ted Abel's studies on the genes linked to autism provide a neurobiological explanation for many of the challenges faced by individuals with autism as they seek to navigate the complex world that surrounds them.

In his lecture, Dr. Abel will discuss the specific molecular signaling processes he has identified that underlie reward learning selectively in males. Reward learning is critical for navigating the complex world around us and is mediated by specific neural circuits, termed cortico-striatal circuits, which are known to be altered in individuals with autism. Interestingly, these same neural circuits mediate the development of social communication, language, repetitive behaviors and restricted interests, all the very core symptoms of autism.

*Edwin G. (Ted) Abel, Ph.D. is the founding director of the Iowa Neuroscience Institute & Chair of the Department of Neuroscience and Pharmacology in the Carver College of Medicine. He is a pioneer in defining the molecular mechanisms of long-term memory storage, and identifying how these processes go awry in neurodevelopmental and psychiatric disorders.*