Psychopathy is a personality disorder characterized by remorseless and impulsive antisocial behavior. Given the significant societal costs of the recidivistic criminal activity associated with the disorder, there is a pressing need for more effective treatment strategies, and hence, a better understanding of the psychobiological mechanisms underlying the disorder. To this end, neuroscientists have begun to employ brain imaging in offender populations to identify the neurological abnormalities underlying psychopathy. Such research could have profound implications for the legal system—from questions of culpability to prospects for rehabilitation and likelihood of future offense.

Dr. Koenigs will present his recent brain imaging research on psychopathic prison inmates. These studies have associated psychopathy with abnormalities in neural circuits related to emotion regulation, moral judgment, reward processing, and attentional control. Moreover, Dr. Koenigs will discuss these findings in relation to his previous studies of brain-damaged neurological patients, which have shown that focal lesions involving lower prefrontal cortex result in social and affective decision-making deficits that are similar to those observed in psychopathy. Together, these findings suggest a neuropathophysiological basis of psychopathy.