Linking molecular information to complex behaviors is the current frontier in neuroscience, and likely will remain so for the foreseeable future. This field is rapidly growing in part due to new techniques allowing the rapid determination of functionally significant genetic variations, and in part due to new insights into how environmental and developmental events trigger changes in gene expression. While geneticists and biochemists have succeeded in using molecular biological techniques to explore how individual neurons are altered as a consequence of changes in genes, we still have little understanding of how genes influence behavior and cognition across the lifespan. In addition, emerging data indicate that genes interact with environmental conditions, particularly during development, to affect adult behavior.

The faculty candidates for these five hires will be a diverse and carefully selected mix of individuals who conduct research in neurobehavioral/neurocognitive genetics at the level of human development, behavior and cognition, as well as individuals who develop new research paradigms by studying genetic control of behavior in animal model systems. The newly hired faculty will be explicitly integrated into the existing community of behavioral and molecular neuroscientists, developmental and cognitive psychologists, and human genetics researchers.