

## **PROJECT NARRATIVE**

In contrast to the current questionnaire-based screening tools for autism spectrum disorders (ASD) that suffer from vast amounts of false positives, and a host of demographic, socio-economic and interpretative biases, we aim to validate the ASD Co-morbid Risk (ACoR) score, that estimates ASD risk via sophisticated pattern discovery on the longitudinal medical history of individual patients. Computation of ACoR requires no new blood-work, laboratory tests, questionnaires or psychiatric/cognitive consults, and may be carried out purely from the history of past medical encounters at no additional administrative burden or resource utilization. In addition to stand-alone performance, the combined application of ACoR with currently used functionally independent scores will be investigated, along with effectiveness in a diverse patient population to assess its ability to address historical under-diagnoses in such communities.