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| **eMERGE Network: Proposal for Analysis**Project/Manuscript Concept Sheet |
| **Reference Number** | NT283 |
| **Submission Date** | 4/27/2018 |
| **Project Title** | Genetic Architecture of Anxiety Disorders  |
| **Tentative Lead Investigator** *(first author)* | John Connolly |
| **Tentative Senior Author** *(last author)* | Hakon Hakonarson |
| **All Other Authors**  | Elizabeth Bhoj, John Connolly, Heather Hain, Margaret Harr, Frank Mentch, Patrick Sleiman, Lyam Vazquez, authors from participating eMERGE sites  |
| **Sites Involved** | All interested sites  |
| **Background / Significance** | Anxiety disorders as a group are the most prevalent mental health condition worldwide, with approximately one in nine people meeting relevant diagnostic across a 12-month period. Relevant disorders include agoraphobia, generalized anxiety disorder, panic disorder, phobias, selective mutism, separation anxiety disorder, and social anxiety disorder. While heritability estimates for anxiety disorders broadly range from ~30–50%, susceptibility loci (e.g. CAMKMT, MAGI1) have not been reliably validated. |
| **Outline of Project** | We developed an algorithm to identify anxiety cases and controls. We will conduct a GWAS, on relevant cases/controls across the eMERGE network, co-varying a range of environmental, biological, and demographic variables.  |
| **Desired Variables** *(essential for analysis**indicated by* ***\*****)* | ICD codes\*Medication historyProcedure codesMedication dosage and frequencyGeocode dataCommon variables: age\*, BMI, race/ancestry\*, sex\*, year of birth\*  |
| **Desired Data** | Phenotypic data as listed above Genotype and sequence data Phase III GWASeMERGEseq  |
| **Planned Statistical Analyses** | GWAS Meta-analysis |
| **Ethical Considerations** | None |
| **Target Journal** | Molecular Psychiatry  |
| **Milestones\*\*** | Approval: Spring 2018Implementation: Summer 2018Data Analysis: Fall, 2019Submit for publication: Winter 2019 |

***\*\**** *This section should include the timeline for completion of project, including: approval, project duration, first and second draft of the paper and submission.*