

Physiological Brain Atlas Development

- The purpose of this study is to create a brain atlas that will allow physiological and clinical information to be assigned to anatomical locations in MRI space and collate and analyze the data to promote new findings across larger populations of subjects in the field of brain science.

Specific Aim 1: To create a brain atlas that will allow physiological and clinical information to be assigned to anatomical locations in MRI space, utilizing non-rigid MRI normalization algorithms.

Specific Aim 2: To collate and analyze the brain data placed in the atlas in a statistical manner that allows doctors to understand and treat brain disease more precisely and based on population data.

Specific Aim 3: To allow precise relationships to be visualized in one anonymized MRI volume, which can lead to new findings across larger populations of subjects in the field of brain science.

Specific Aim 4: To locate all the data in a HIPAA compliant, anonymized location that clinicians and researchers can access securely without compromising personal healthcare information (PHI).