For New and Renewal Applications (PHS 398) – DO NOT SUBMIT UNLESS REQUESTED

PHS 398 OTHER SUPPORT

VOGELSTEIN, J.T.

ACTIVE

R01NS092474 (Smith) 9/30/2014 – 6/30/2019 0.89 calendar
NIH (TRA); Prime: Allen Institute $178,305 (Subcontract)
Title: Synaptomes of Mouse and Man

The major goals of this project are to discover the synaptic diversity and complexity in mammalian brains, specifically comparing and contrasting humans with mice, the leading experimental animal.

(Vogelstein) 5/11/15 - 8/28/18 3.0 calendar
DARPA $185,479
Title: From RAGs to Riches: Utilizing Richly Attributed Graphs to Reason from Heterogeneous Data

Multiple, large, multifarious brain imaging datasets are rapidly becoming standards in neuroscience. Yet, we lack the tools to analyze individual datasets, much less populations thereof. Therefore, we will develop theory and methods to analyze and otherwise make such data available.

ACI-1649880 (Burns) 1/01/17 – 10/31/18 0.24 calendar
NSF $92,722
Title: Brain Comp Infra: EAGER: BrainLab CI: Collaborative, Community Experiments with Data-Quality Controls through Continuous Integration

The BrainLab CI prototype system will deploy an experimental-management infrastructure that allows users to construct community-wide experiments that implement data and metadata controls on the inclusion and exclusion of data.

(Cencheng) 05/01/2017 - 04/30/2020 0.40 calendar
NSF $42,707
Title: Multiscale Generalized Correlation: A Unified Distance-Based Correlation Measure for Dependence Discovery

This project aims to establish a unified methodology framework for statistical testing in high-dimensional, noisy, big data, through theoretical advancements, comprehensive simulations, and real data experiments.

1R01DC016784-01 (Ratnanather)
NIH 07/01/2017 – 06/30/2020 1.0 calendar
$151,863
Title: CRCNS US-German Res Prop: functional computational anatomy of the auditory cortex

The goal of this project is to create a robust computational framework for analyzing the cortical ribbon in a specific region: the auditory cortex.

(Vogelstein)
NSF 16-569 Neural System Cluster 07/01/2017 - 06/30/2019 1.0 calendar
NSF $246,773
Title: NeuroNex Technology Hub: Towards The International Brain Station for Accelerating and Democratizing Neuroscience Data Analysis and Modeling

We propose to lower the barrier to connecting data to analyses and models by providing a coherent cloud computational ecosystem that minimizes current bottlenecks in the scientific process.

PENDING

(Engert) 09/01/2017 - 08/31/2022 3.0 calendar
Harvard University/ Prime: NIH $187,862
Title: Sensorimotor processing, decision making, and internal states: towards a realistic multiscale circuit model of the larval zebrafish brain

The general goal of the proposal is to generate a realistic multiscale circuit model of the larval zebrafish's brain – the multiscale virtual fish (MSVF). The model will span spatial ranges from the nanoscale at the synaptic level, to local microcircuits to inter-area connectivity - and its ultimate purpose is to explain and simulate the quantitative and qualitative nature of behavioral output across various timescales.

(Priebe)
DARPA 10/1/2016 – 09/30/2020 2.0 Calendar
Title: What Would Tukey Do? $656,283

The goal is to develop theory & methods for generating a discoverable archive of data modeling primitives and for automatically selecting model primitives and for composing selected primitives into complex modeling pipelines based on user-specified data and outcome(s) of interest.

(Mostofsky)
NIH 04/1/2018 – 03/31/2023 0.9 Calendar
$19,892
Title: Physiologic Mechanisms of Mindful Movement in Children with ADHD

This research will provide objective measures of mechanisms that can be used to develop and target appropriate interventions for the improved coordination of thought and attention for a range of populations.

(Vogelstein)
DARPA 11/1/2017 – 10/31/2021 3.0 Calendar
$1,551,326
Title: Lifelong Learning Forests

Our Lifelong Learning Forests (L2Fs) will learn continuously, selectively adapting to new environments and circumstances utilizing top-down feedback to impact low-level processing, with provable statistical guarantees, while maintaining computational tractability at scale.

OVERLAP

In the event that pending proposals are awarded, Dr. Vogelstein will adjust his effort to stay within 12 months of support.