The 19th Webinar for Quantitative Genetics Tools for Mapping Trait Variation to Mechanisms, Therapeutics, and Interventions

A Rube Goldbergian Approach to Scheduling Rodent Behavior Experiments and Data Collection

Friday, September 10th, 2021 10am PDT/ 11am MDT/ 12pm CDT/ 1pm EDT

Presented by:

Dr. Hao Chen

Associate Professor Department of Pharmacology, Addiction Science, and Toxicology University of Tennessee Health Science Center

There is no fee associated with this webinar, but users are asked to register to receive the Zoom link and password.

Registration: https://bit.ly/osga_2021-09-10



Sponsored by: The NIDA Center of Excellence in Omics, Systems Genetics, and the Addictome http://opar.io Large-scale rodent behavioral experiments with complicated testing procedures conducted over several years (e.g. genetic mapping of operant drug taking) need rigorous control on the quality of the data. This webinar will discuss methods used in my lab where we generate ready to use MedPC macros from a spreadsheet for new test sessions, cell phone notification on the completion of behavioral tests, nightly automated data assembly, daily notification of procedural changes for individual animals. Potential errors are checked automatically at several points with messages sent to the users. This system is put together using a relational database (sqlite), several ad hoc computer programs (perl, python, or shell), a cloud storage service (Dropbox), and a messaging system (slack). By turning much of the experiment planning and error checking procedure into computer code, we improve experimental efficiency and data quality.