

Postdoctoral Fellowship in Interpersonal Neurodynamics of Psychedelic-Assisted Psychotherapy

Supervisors: Dr. Greg Appelbaum and Dr. Eric Garland

Institution: Department of Psychiatry, University of California San Diego

Start date: Available immediately (flexible)

A postdoctoral position is available to join the new ARPA-H-funded Maximizing Outcomes in Neuroplastogen Assisted Psychotherapy (**MAPneuro**) program, jointly led by Drs. Eric Garland and Greg Appelbaum at UC San Diego. The overarching goal of MAPneuro is to develop and validate multimodal, computational measures of interpersonal synchrony between therapists and patients undergoing psychedelic-assisted and mindfulness-based psychotherapy, and to link these measures to therapeutic processes and clinical outcomes.

The fellow will be embedded in the UCSD Department of Psychiatry's vibrant research community and will work closely with interdisciplinary teams spanning interventional psychiatry, data science, cognitive neuroscience, and clinical trials. The postdoc will help lead MAPneuro studies by designing and implementing research protocols, coordinating data collection from therapist-patient dyads, and overseeing multimodal sensing during psychotherapy sessions. Core data streams include high-density EEG, ECG, high-resolution video for automated facial affect and body pose extraction, and audio for speech prosody and sentiment. The fellow will be responsible for building and applying analysis pipelines for inter-brain and physiological synchrony, integrating these measures with clinical and process outcomes, and reporting results in journal articles, conference presentations, and sponsor reports. The position also involves overseeing project management, mentoring research staff (e.g., clinical research coordinators and assistants) and trainees, contributing to regulatory documents and IRB amendments, and supporting quality control and data harmonization efforts.

Applicants should hold a PhD (or equivalent) in neuroscience, psychology, cognitive science, biomedical engineering, data science, psychiatry, or a related field by the start date. Strong quantitative skills and experience with neurophysiology (e.g., EEG or ECG), time-series analysis, or multivariate modeling in R, Python, or MATLAB are essential. Prior experience with EEG hyperscanning, psychotherapy process research, dyadic or interpersonal physiology, multimodal sensing (video/audio), or clinical trials and neuroscience research on psychedelic-assisted or mindfulness-based interventions is highly desirable, as is familiarity with regulated clinical research environments. Evidence of productivity in the form of first-author publications is expected, along with strong communication and project-management skills. We are looking for highly motivated and independent scientists who are eager to take a lead role in this exciting and demanding program.

The initial appointment will be for one year with the possibility of renewal based on performance and funding. The MAPneuro program is expected to last for at least two years, pending completion of program milestones and deliverables. Salary will follow UC San Diego postdoctoral scales and will be commensurate with experience, with full UC benefits.

To apply, please send a single PDF including a cover letter (1–2 pages), curriculum vitae, one representative writing sample, and contact information for three referees to Dr. Greg Appelbaum (greg@health.ucsd.edu). In your cover letter, briefly describe your research background, how it aligns with MAPneuro and the Appelbaum/Garland labs, and your preferred start date. Applications will be reviewed on a rolling basis until the position is filled.