

# TPCP T32 Faculty Trainer List

## Program Directors

| NAME            | ROLE            |
|-----------------|-----------------|
| Thomas Serre    | Contact PI      |
| Stephanie Jones | MPI             |
| Michael Frank   | MPI             |
| Noah Philip     | MPI (DPHB / VA) |

## Faculty trainers (28)

| NAME                      | UNIT                                 | RESEARCH FOCUS                                                               | WEBSITE                                                                           |
|---------------------------|--------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Carina Curto</b>       | Applied Mathematics                  | Topology and combinatorics of neural coding; network dynamics                | <a href="https://ccurto.github.io">ccurto.github.io</a>                           |
| <b>Matthew Harrison</b>   | Applied Mathematics                  | Statistical models of spike timing; Bayesian decoding for BCIs               | <a href="https://dam.brown.edu/people/harrison">dam.brown.edu/people/harrison</a> |
| <b>George Karniadakis</b> | Applied Mathematics                  | Stochastic multiscale modeling; ML for biophysics and neurovascular coupling | <a href="#">CRUNCH Group</a>                                                      |
| <b>Ani Eloyan</b>         | Biostatistics                        | Statistical and computational methods for neuroimaging                       | <a href="https://anieloyan.com">anieloyan.com</a>                                 |
| <b>Oriel FeldmanHall</b>  | Cognitive and Psychological Sciences | Social decision-making; emotional learning; anxiety and depression           | <a href="#">FeldmanHall Lab</a>                                                   |

| NAME                        | UNIT                                 | RESEARCH FOCUS                                                                          | WEBSITE                                                                  |
|-----------------------------|--------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Michael Frank</b>        | Cognitive and Psychological Sciences | Multilevel computational models of motivated behavior and decision-making               | <a href="#">Lab for Neural Computation and Cognition</a>                 |
| <b>Frederike Petzschner</b> | Cognitive and Psychological Sciences | Computational psychiatry; interoception; Bayesian modeling                              | <a href="#">PEAC Lab</a>                                                 |
| <b>Thomas Serre</b>         | Cognitive and Psychological Sciences | Systems neuroscience, computer vision and ML; cortical feedback; behavioral phenotyping | <a href="#">Serre Lab</a>                                                |
| <b>Stephen Bach</b>         | Computer Science                     | Weakly supervised machine learning; healthcare applications                             | <a href="http://cs.brown.edu/people/sbach">cs.brown.edu/people/sbach</a> |
| <b>George Konidaris</b>     | Computer Science                     | Mathematical foundations of reinforcement learning; learning under uncertainty          | <a href="#">Intelligent Robot Lab</a>                                    |
| <b>David Laidlaw</b>        | Computer Science                     | Visualization and computational modeling for neuroimaging data                          | <a href="http://cs.brown.edu/~dhl">cs.brown.edu/~dhl</a>                 |
| <b>Ellie Pavlick</b>        | Computer Science                     | NLP; semantics and pragmatics; ML on informal text and social media                     | <a href="#">LUNAR Lab</a>                                                |
| <b>David Borton</b>         | Engineering                          | Brain-computer interfaces; implanted neurotechnology; neuromodulation                   | <a href="#">Borton Lab</a>                                               |
| <b>Leigh Hochberg</b>       | Engineering                          | BrainGate clinical trials; high-resolution neural decoding                              | <a href="#">Brown Engineering profile</a>                                |
| <b>Theresa Desrochers</b>   | Neuroscience                         | Cognitive                                                                               | <a href="#">Desrochers Lab</a>                                           |

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|-------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------|
|                         |                               | sequencing; frontal cortex dynamics; fMRI and TMS                                   |                                           |
| <b>Stephanie Jones</b>  | Neuroscience                  | Thalamocortical dynamics; MEG/EEG with biophysical modeling; HNN                    | <a href="#"><u>Jones Lab</u></a>          |
| <b>Chris Moore</b>      | Neuroscience                  | Forebrain dynamics; vascular-neural interactions; open-source tools                 | <a href="#"><u>Moore Lab</u></a>          |
| <b>Matthew Nassar</b>   | Neuroscience                  | Uncertainty and learning; fMRI, EEG, MRS, pupillometry                              | <a href="#"><u>Nassar Lab</u></a>         |
| <b>David Sheinberg</b>  | Neuroscience                  | Visual perception; multimodal integration; object recognition and mental simulation | <a href="#"><u>Sheinberg Lab</u></a>      |
| <b>Wilson Truccolo</b>  | Neuroscience                  | Stochastic models of neural ensembles; epilepsy, Parkinson's, psychiatric disorders | <a href="#"><u>Truccolo Lab</u></a>       |
| <b>Wael Asaad</b>       | Neurosurgery                  | Human and NHP invasive recordings; decision-making; clinical neurostimulation       | <a href="#"><u>Asaad Lab</u></a>          |
| <b>Michael Armey</b>    | Psychiatry and Human Behavior | Ecological momentary assessment; suicidal ideation and self-harm                    | <a href="#"><u>CELL Lab</u></a>           |
| <b>Jennifer Barredo</b> | Psychiatry and Human Behavior | Neuroimaging of suicide risk and cognitive control                                  | <a href="#"><u>Brown VIVO profile</u></a> |
| <b>Linda Carpenter</b>  | Psychiatry and Human Behavior | TMS trials for treatment-resistant depression;                                      | <a href="#"><u>Brown VIVO profile</u></a> |

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|---------------------------|-------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------|
|                           |                               | longitudinal EEG                                                                           |                                                   |
| <b>Benjamin Greenberg</b> | Psychiatry and Human Behavior | OCD, depression, chronic pain; neurostimulation and imaging                                | <a href="#"><u>Carney profile</u></a>             |
| <b>Nicole McLaughlin</b>  | Psychiatry and Human Behavior | Cognitive control in OCD; TMS, tDCS and neurosurgery pre/post designs                      | <a href="#"><u>Brown Neurosurgery profile</u></a> |
| <b>Nicole Nugent</b>      | Psychiatry and Human Behavior | Trauma and suicide risk; multimodal digital phenotyping                                    | <a href="#"><u>RI Resilience Lab</u></a>          |
| <b>Noah Philip</b>        | Psychiatry and Human Behavior | Precision interventional psychiatry; non-invasive brain stimulation in depression and PTSD | <a href="#"><u>Brown VIVO profile</u></a>         |
| <b>Steven Rasmussen</b>   | Psychiatry and Human Behavior | Frontostriatal circuitry in OCD; circuit-based interventions                               | <a href="#"><u>Brown Psychiatry profile</u></a>   |