The aim of my research programme is to engineer bridges between cutting-edge optical technologies and neuroscientists to acquire new, ground-breaking data on how brain circuits wire, process, and store information.
Referred Publications


Invited Lectures

1. “Combining optogenetics with holograms to crack the neural code”; Barts Health/QMUL; London, United Kingdom; April 2016.


4. “Holographic Light Sculpting for Fast, Parallel, and Spatially Precise Neural Microcircuit Investigation”; NETT International Conference on System Level Approaches to Neural Engineering; Barcelona, Spain; September 2015.

5. “Voltage dyes enable direct characterization of action potential generation, fidelity, and kinetics in CNS axonal arbors”; 40th Anniversary Celebration of Merocyanine 540; Wood’s Hole, Massachusetts, USA; August 2013.


Academic and Professional Honors

2012 Doctoral dissertation approved with distinction, Yale University

2011 Selected US delegate to the Lindau Meeting of Nobel Laureates, Germany

2011 Marine Biological Laboratory “Theoretical Neuroscience” summer course (competitive entry, Wood’s Hole

2006 Faculty for Undergraduate Neuroscience Society for Neuroscience Travel Award

2006 Washington State University (WSU) Faculty Association for Scholarship and Research Undergraduate Research Award

2005 Washington State University (WSU) Center for Integrated Biotechnology Undergraduate Summer Research Fellowship

2002-2006 WSU Distinguished Regents Scholar (full scholarship and stipend)