

Min Dong, PhD

I received my Ph.D. in Neuroscience at the University of Wisconsin–Madison in 2004, and continued my postdoctoral training in Dr. Edwin Chapman's laboratory from 2004-2009 at HHMI/Univ. of Wisconsin - Madison. I set up my own independent laboratory in 2009 at Harvard Medical School (HMS), first as a member of the *Independent Instructor Program* and was promoted to Assistant Professor in 2013. I am currently an Assistant Professor in the Department of Microbiology and Immunobiology of HMS and the Department of Urology at Boston Children's Hospital (BCH).

My graduate and postdoctoral studies focus on identification and characterization of the receptors for botulinum neurotoxins (BoNTs). My studies identified the receptors for all major BoNTs and made seminal contributions to our current understanding of how BoNTs target and enter neurons. In addition, I also developed novel *in vitro* and cell-based assays for detecting and analyzing BoNTs (*PNAS*, 2004) and co-founded a bio-tech company that commercialized our inventions. These assays are now widely used by research laboratories, pharmaceutical companies, and the U.S. Department of Defense.

I have been leading my independent lab for eight years. My own laboratory has a broad interest in understanding the molecular, structural, and cellular mechanisms underlying how bacterial toxins target and disrupt critical cellular functions. Along these lines of basic research, we are also keen in translating our insights and knowledge toward developing new scientific tools and novel therapeutics through protein engineering approaches. For instance, we have recently engineered novel engineered therapeutic botulinum toxins with improved safety and efficacy, which has been licensed to a major pharmaceutical company.