Kevin Eggan, Ph.D.

Dr. Eggan is a Professor in the Department of Stem Cell and Regenerative Biology at Harvard University as well as Director of the Stem Cell Program at the Stanley Center for Psychiatric Research at the Broad Institute. He completed his PhD studies with Dr. Rudolf Jaenisch at the Massachusetts Institute of Technology in 2002 and was appointed junior fellow at Harvard University in 2003. He became assistant professor of Molecular & Cellular Biology at the Stem Cell Institute in 2005 and has garnered a number of high profile awards, including the MacArthur Foundation “Genius Grant” in 2006. In 2009, Dr. Eggan was selected as one of 50 Howard Hughes Medical Institute Early Career Scientists. He has made fundamental contributions to the fields of stem cell biology and cellular reprogramming including nuclear transfer studies, conducted during training, which challenged preconceived notions concerning the limits of cellular plasticity. His own lab then became the first to demonstrate that human somatic cells could be reprogrammed to an embryonic stem (ES) cell state. This work has been cited as an inspiration for the discovery of factors used to generate induced pluripotent stem cells (iPSCs). His lab was also first to generate patient-specific iPSCs and use them to produce the cell type affected in that individual. As these particular patients suffered from ALS, his lab has since explored stem cells as a renewable source of motor neurons for studying mechanisms leading to neural degeneration. Using this approach, they have found that astrocytes are important non-cell autonomous contributors to motor neuron degeneration in ALS, discovered new mechanisms that lead to motor neuron degeneration, and have identified a candidate ALS therapeutic.

In his role as Director of the Stem Cell Program at the Stanley Center for Psychiatric Research at the Broad Institute, Dr. Eggan is leading a group of scientists to expand the platform to increase reproducibility of stem cell and reprogramming technologies with the ultimate goal of improving understanding and treatment of psychiatric diseases.