

Dear Faculty, IGERT Fellows, IGERT Associates and Students,

You are cordially invited to attend a Seminar presented by Brett Bays. Please plan to attend.

Brett Bays

IGERT Fellow

Date: Friday, March 13th, 2015

Location: WCH 216

Time: 11:00am

Using Cellular Reprogramming In Vivo to Regenerate Functional Neurons in Injury and Alzheimer's Disease Models

Abstract:

Brain injury and neurodegenerative diseases, such as Alzheimer's disease, can lead to a loss of neurons and a subsequent proliferation of reactive glial cells. Many of these reactive glial cells stay in the injured brain area, preventing neuronal growth, and form glial scars which are difficult to treat with current approaches. This talk will focus on a paper, "In Vivo Direct Reprogramming of Reactive Glial Cells into Functional Neurons after Brain Injury and in an Alzheimer's Disease Model" (Guo, Zhang, Wu, Chen, Wang, and Chen, 2014) which demonstrates a technique based on recent advances reprogramming adult skin fibroblasts into pluripotent stem cells. Using this technique, the authors demonstrate the ability to reprogram reactive glial cells in the cortex of stab-injured or Alzheimer's disease model mice into functional neurons *in vivo*. This offers an alternative approach for the repair of injured and diseased brains and is an important step towards developing similar techniques in humans.

