Dear Faculty, IGERT Fellows, IGERT Associates and Students,

You are cordially invited to attend a Seminar presented by Atena Zahedi.
Please plan to attend.

Atena Zahedi

IGERT Fellow
Date: Friday, January 23, 2015
Location: WCH 216(Vislab)
Time: 11:00am

Computational Image Analysis of Colony and Nuclear Morphology to Evaluate Human iPSCs

Abstract:

I will be reviewing a recent video-bioinformatics-related paper, which focuses on the non-invasive evaluation of cell reprogramming of human induced pluripotent cells (iPSCs). Label-free live image libraries of various iPSC lines were collected, and supervised machine learning pattern recognition algorithms were applied to accurately distinguish true iPSCs from improperly reprogrammed cells. The study identified key features for efficient discrimination reside in cellular compartments such as the nucleus. Examination of iPSCs' nuclear morphologies revealed that the linear promyelocytic leukaemia (PML)-defined structure reversed to a regular sphere upon differentiation.