**NIGMS Science Advance**

**Project Title:** Human Induced Pluripotent Stem Cell (IPSC) applied to brain disease

**Institution and State:** Rhode Island Hospital, Providence, Rhode Island

**PI Name:** Eric M. Morrow

**Background:** Developed expertise in reprogramming oral mucosa peripheral blood lymphocytes into IPSC and then differentiating this into neurons to study the abnormalities seen in different forms of autism. They have recruited 6 families with NHE6 gene mutations and developed neuronal cell lines form them.

**Advance:** Defined defects in neurite branching in neurons derived from these patients. A unique investigation into the defects underlying one serious form of autism.

**How NIGMS Grant Enabled Advance:** Funded the actual studies.

**Public Health Impact Statement:** Advance in possible therapies for neurologic diseases and an important advance toward possible treatment for selected forms of autism.

**NIH Director’s theme(s) relevance:** Advances in understanding autism which might lead to therapies for selected forms of autism.

**Grant Support:** COBRE grant.

**Publication Citation and Link (if applicable):**


**Key Words:** Autism, Induced pluripotent stem cells and NHE6 mutations.

**NIGMS Point of Contact:**

*NIH Director’s Themes:* Genomics, Translational Research, Health Care Reform, Global Health, Reinvigorating the Biomedical Community.


http://news.sciencemag.org/funding/2010/02/nih-director-bends-budget-fit-five-themes