

Alexander Robert Stanton

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Education

In MS in Biological Sciences; California State University, Chico; Chico, CA
Progress: Emphasis: Cell and Molecular Biology
2012: BS in Cell Biology; University of California, Davis; Davis, CA
2011: Semester Abroad; University College Dublin; Dublin, Ireland

Research Experience

08/2012 - Graduate Research Associate; CSU Chico, the laboratory of Dr. David M.
Present: Keller; Chico, CA
Research: (1) Investigating the involvement of HDAC1-mediated chromatin remodeling in cAMP-induced repression of an upstream regulator of insulin secretion, microRNA-375. (2) Interrogation of the 3'-UTR of microRNA-375 in relation to highly conserved sequences, characterizing regions involved in repression.

09/2011 - Volunteer Research Assistant; UC Davis Medical Center, the laboratory of Dr.
08/2012: Colleen Sweeney; Davis, CA
Research: (1) Studying the effect Leucine-rich Repeats and Immunoglobulin-like Domains (LRIG) 3 has on the expression of the ErbB/HER family of receptor tyrosine kinases (EGFR, ErbB2, ErbB3, and ErbB4) often overexpressed in breast cancer. (2) Studying the effects of tamoxifen and fulvestrant in conjunction with LRRC4 overexpression on the expression of LRIG1 and cell viability.

11/2007 - Student Mentee; Lawrence Berkeley National Laboratory, the laboratory of
04/2008: Joe W. Gray; Berkeley, CA
Project: Testing the efficacy of UO126 as an anti-tumor drug, preventing cell growth by inhibiting nuclear translocation of ERK.

Work Experience

08/2012 - Teaching Associate; Department of Biological Sciences, CSU Chico
Present: Courses Taught: Intro to Living Systems (08/2012 - Present), Principles of Cellular and Molecular Biology (08/2013 - Present).

01/2011 - Science Writer; *The California Aggie*, UC Davis
04/2011:

Presentations

- 05/2014: 18th Annual CSU Chico Biological Sciences Student Research Symposium
Poster: “Cyclic-AMP Stimulated Chromatin Remodeling Involved in microRNA-375 Repression.”
*Award Winner
- 03/2014: 28th Annual CSU Chico Student Research Competition
Presentation: “Understanding Genetic Regulation of a Factor in Type 2 Diabetes, MicroRNA-375.”
- 01/2014: 26th Annual California State University Program for Education and Research in Biotechnology (CSUPERB) Symposium.
Poster: A Stanton, PE Diaz, T Chang, DM Keller. “Cyclic-AMP and Epigenetic Regulation of MicroRNA-375.”
- 01/2013: 25th Annual California State University Program for Education and Research in Biotechnology (CSUPERB) Symposium.
Poster: A Stanton, R Guzman, M Martinez, D Rollins, S Steadman, DM Keller. “Regulation of MicroRNA-375 by Inducible cAMP Early Repressor in Pancreatic Beta Cells.”
- 12/2012: CSU Chico Department of Biological Sciences Seminar Series
Presentation: “Characterizing and Utilizing MicroRNA-375 Repression in Type II Diabetes.”

Awards

- 05/2014: Graduate Research Poster Award
- 08/2013: Lieutenant Robert Merton Rawlins Merit Award

Proficiencies

Tissue culture; DNA/RNA/protein/plasmid isolation; polymerase chain reaction; quantitative polymerase chain reaction; reverse transcriptase polymerase chain reaction; cloning/plasmid design; transfection; SDS-PAGE and agarose gel electrophoresis; Western blotting; MTS/MTT/Alamar Blue assay; luciferase assay; immunoprecipitation; chromatin immunoprecipitation; hemagglutination assay; plaque assay; immunofluorescence assay; viral culture; light and fluorescence microscopy; crystal violet staining; Micrococcal Nuclease Protection Assay.

UCSC Genome Browser; ClustalW; ImageJ; Alpha Innotech; FinchTV; Integrated DNA Technologies Oligo Analyzer; Jmol; Genome Compiler; MEGA; SynBioSS Desktop Simulator (learning).