Alexander Robert Stanton

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Education

Present: <u>PhD in Mammalian Genetics</u>; Tufts University; Boston, MA

Doctoral work conducted at The Jackson Laboratory in Bar Harbor, ME

2015: MS in Biological Sciences; California State University, Chico; Chico, CA

Emphasis: Cell and Molecular Biology

2012: <u>BS in Cell Biology</u>; University of California, Davis; Davis, CA

2011: <u>Semester Abroad</u>; University College Dublin; Dublin, Ireland

Research Experience

08/2012 - Graduate Research Associate; CSU Chico, the laboratory of Dr. David M.

06/2015: Keller; Chico, CA

Research: (1) Investigating the involvement of HDAC1 in cAMP-induced repression of an upstream regulator of insulin secretion, microRNA-375. (2) Interrogation of the 5'-UTR of microRNA-375 in relation to highly conserved sequences, characterizing regions involved in repression.

09/2011 - <u>Volunteer Research Assistant</u>; UC Davis Medical Center, the laboratory

08/2012: of Dr. 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 - <u>Student Mentee</u>; Lawrence Berkeley National Laboratory, the laboratory

04/2008: of 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

08/2014 - <u>Lecturer</u>; Department of Biological Sciences, CSU Chico

05/2015: Principles of Cellular & Molecular Biology (08/2014 - 05/2015)

08/2012 - <u>Teaching Associate</u>; Department of Biological Sciences, CSU Chico

05/2014: Intro to Living Systems (08/2012 - 05/2014); Principles of Cellular &

Molecular Biology (08/2013 - 05/2014).

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

04/2011:

Presentations & Conferences

06/2015: Masters Thesis Defense

> Presentation: "Investigation of Promoter Histone Deacetylation as a Mechanism for Cyclic Adenosine Monophosphate-Stimulated Repression of microRNA-375"

05/2015: 29th Annual CSU Student research Competition at CSU San Bernardino

Presentation: "Deacetylation as a Mechanism for Repression of

microRNA-375, a Factor Involved in Type 2 Diabetes."

03/2015 29th Annual CSU Chico Student Research Competition

> Presentation: "Deacetylation as a Mechanism for Repression of microRNA-375, a Factor Involved in Type 2 Diabetes."

*Winner

10/2014· Cell Symposium: Regulatory RNAs

> Poster: "Investigation of cAMP-Responsive microRNA-375 Regulation in Pancreatic β-Cell"

05/2014· 18th Annual CSU Chico Biological Sciences Student Research

<u>Symposium</u>

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 2 Diabetes."

Awards

03/2015: CSU Chico Student Research Competition Winner

05/2014: CSU Chico Biological Sciences 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; GenoCAD (learning); SynBioSS Desktop Simulator (learning); Perl and Python (learning).