

Ryan DeBose-Boyd

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EDUCATION

Pursuing Ph. D. in

Quantitative & Computational Biosciences

Baylor College of Medicine

2020-Present

BS in Biology, *magna cum laude*

2019

Texas A&M University – Commerce, Commerce, Texas

TEACHING EXPERIENCE

Peer Tutor

2016 – 2018

Academic Services Center, Texas A&M University - Commerce

- Assisted students in completing their assignments for courses including General Chemistry, General Biology, General Physics, Pre-Calculus, and Calculus.
- Helped explain science and math concepts in a way that was easy to understand.

RESEARCH EXPERIENCE

Research Technician II

2019-2020

Department of Molecular Genetics, UT Southwestern Medical Center

- Became familiar with Linux bash and HPC Cluster environments through helping out with technical tasks around the lab.
- Performed structural biology scientific research, using methods such as fast protein liquid chromatography (FPLC), transfection, mini-prep, and mutagenesis to study the mechanisms involved with the Hedgehog (Hh) signaling pathway.
- Using Linux bash, helped backup cryo-electron microscopy data to AWS S3.
- Helped remove false-positive particles and low-quality images in RELION, a structural analysis software package.

Undergraduate Intern

6/2018-8/2018

Department of Molecular Genetics, UT Southwestern Medical Center

- Performed and interpreted multiple qPCR assays in order to test the effects of different drugs on lipolysis induction that is present in animals with Cachexia.
- Compiled data from lab experiments into figures or tables and shared knowledge at weekly lab meetings.

Undergraduate Researcher**2017-2018***Texas A&M University- Commerce, Commerce, Texas*

- Used lab techniques such as immunofluorescence and western blot to determine a potential relationship between the G1P3-induced endocytotic pathway and β -catenin in breast cancer cells.
- Presented results from lab experiments at weekly lab meetings.
- Effectively communicated lab results at the 14th Annual Pathways Student Research Symposium.
- Mentored new lab members on basic lab procedures while keeping up with own research and classwork.

Undergraduate Intern**5/2016 – 7/2016***Department of Molecular Genetics, UT Southwestern Medical Center*

- Performed several techniques such as immunoblot analysis, immunoprecipitation, and PCR to genotype various transgenic, knockout, and knockin strains of mice.

HONORS AND AWARDS

President's List, Texas A&M University – Commerce, Commerce, TX

2016-2017**PRESENTATIONS**Texas A&M University System 14th Annual Pathways Symposium**2017**

- *E-Cadherin Endocytosis Alters B-catenin Expression and Localization in Breast Cancer*

ORIGINAL SCIENTIFIC MANUSCRIPTS

1. Qi X, Friedberg L, DeBose-Boyd R. Sterols in an intramolecular channel of Smoothed mediate Hedgehog signaling. *Nature Chemical Biology. Published 14 September 2020.*