

# Ryan DeBose-Boyd

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GitHub Link: <http://github.com/ryan96db>

Website: <https://ryan96db.github.io/>

## EDUCATION

**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  $\beta$ -catenin in breast cancer cells.
- Presented results from lab experiments at weekly lab meetings.
- Effectively communicated lab results at the 14<sup>th</sup> 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 14<sup>th</sup> 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. Submitted for publication.*