

# DEZMOND J. COLE

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## EDUCATION

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Doctor of Philosophy Present  
**Johns Hopkins School of Medicine** (Baltimore, Maryland)  
Degree: Biochemistry, Cellular & Molecular Biology

Bachelor of Science Aug. 2019  
**University of Montevallo** (Montevallo, Alabama)  
Degree: Biology

## RESEARCH EXPERIENCE

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Aug 2019-Aug 2021 **NIH PREP Scholar at Johns Hopkins School of Medicine**

**Mentor:** Dr. Brendan Cormack (Dept. Molecular Biology & Genetics)

**Projects:** The Cormack lab investigates pathways that allow *Candida glabrata* to colonize and persist in the mammalian host. For my first project, I took a reverse genetics approach to study the importance of the transcription factor *YAP6* in virulence-related adherence. Surprisingly, my data showed that *YAP6* is not important for adherence. For my second project, I tested whether the evolutionarily conserved integrated stress response pathway (ISR) is involved in the virulence of *C. glabrata*. I found that cells mutated in *GCN4*, the central node of the ISR, are compromised for virulence.

Summer 2018 **Undergraduate research at Johns Hopkins University**

**Mentor:** Dr. John Kim (Dept. Biology)

**Project:** The Kim lab studies post-transcriptional gene regulatory mechanisms that control animal development. My graduate student mentor and I designed an auxin-inducible protein degradation system to temporally destabilize a kinase known to phosphorylate MORC-1 to determine how and whether MORC-1's phosphorylation impacts its localization. To get all the auxin-inducible degron components in one animal, I created a triple-transgenic strain of worms by crossing different strains, and using this strain, we found that the kinase could almost be entirely depleted from the germline in as little as 15 minutes after 1 mM auxin exposure.

Jan-May 2018 **Undergraduate research at the University of Montevallo**

**Mentor:** Dr. Heather N. Tinsley (Dept. Biology, Chemistry, & Mathematics)

**Project:** The Tinsley lab Her lab investigates the immunological benefits that human breast milk gives to developing infants. My project was to identify the macromolecular components of human breast milk that confer bactericidal activity. My main finding was that the supernatant containing soluble peptides and sugars showed the highest antimicrobial activity against *Streptococcus agalactiae*.

## HONORS & AWARDS

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Summer 2018 **Johns Hopkins University BioREU** (Leadership Alliance/NSF-funded 10-week mentored research experience, and invitation to the Leadership Alliance National Symposium)

Fall 2018 **ABRCMS Travel Award**

Fall 2018 **Princeton MOL BIO Scholar** (Competitive program to increase diversity in science. Included travel award to attend Department of Molecular Biology Retreat and present my research)

Spring 2016 **State Finalist, Classical Voice Performance Award** (National Association of Teachers of Singing; given to finalists in annual statewide competition); youngest male performer to receive this award in Alabama in 2016.

Fall 2014-Spring 2015 **Classical Voice Performance Scholarship** (U. Montevallo Department of Music)

Fall 2014 – Fall 2017 **Dr. Martin Luther King, Jr. Scholarship** (merit-based, \$12,000 [total], from the University of Montevallo)

## LEADERSHIP

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- 2016-2018 **Vice President** (2016-17), **President** (2017-18)  
Montevallo Pre-Health Professionals Society
- Jul. 2020 – Present **Communications Chair** (2020-2021), **Vice President** (2021-Present)  
Johns Hopkins Science Policy Group

## TEACHING EXPERIENCE

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- Nov. 2021 **Science Policy Communication & Memo Writing Seminar**  
*Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD (virtual)*  
In collaboration Dr. Asari Offiong in the Department of Population, Family, & Reproductive Health, gave a seminar to first-year graduate students on key aspects of the science policy space, including policy communication and how to write an effective policy memo.

## OTHER SCHOLARLY ACTIVITIES

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- July 2020 **Participant (virtual), *The 61<sup>st</sup> McKusick Short Course***  
*Jackson Laboratory, Bar Harbor, Maine*  
An intensive, 10-day course on modern genetics and genomics with lectures and workshops.
- May-June 2020 **Introduction to Science Policy & Advocacy Course Participant**  
*Federation of American Societies for Experimental Biology, Bethesda, MD*  
A 5-week course on the science policy landscape and successful advocacy strategies. Developed a policy memo to the Trump administration that outlined a pressing issue affecting African American communities in rural Alabama for the Environmental Protection Agency.

## PAID TEACHING & WORK EXPERIENCE (I mostly supported myself financially during college)

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- Dec. 2017–Present **Biology, Chemistry, & German Tutor for Varsity Tutors** (10-15 hours/week)  
Tutored undergraduate students in Biology, Chemistry and German language and diction
- May 2019 **ACT Science Tutor** (20 hours/week)  
Tutored students in the TRIO Upward Bound program at the University of Montevallo to prepare first-generation, low-income high school students for the ACT Science section
- May 2017–Jul. 2017 **George's at Alys Beach** (40+ hours/week)  
Worked full-time as a server and bar tender at George's, a casual dining restaurant in Alys Beach, Florida
- Oct. 2015–Aug. 2016 **Jim 'N Nick's Bar-B-Q** (15/20 hours-week)  
Worked as a server and caterer at Jim 'N Nick's Bar-B-Q in Alabaster, Alabama