

## Publications

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University of Tennessee, Knoxville

Sanders, J. T., **Freeman, T. F.**, Xu, Y., Gollosi, R., Stallard, M. A., Hill, A. M., San Martin, R., Balajee, A. S., & McCord, R. P. (2020). Radiation-induced DNA damage and repair effects on 3D genome organization. *Nature Communications*, 11(1), 6178.

<https://doi.org/10.1038/s41467-020-20047-w>

Gollosi, R., **Freeman, T. F.**, Das, P., Raines, T. I., Martin, R. S., Playter, C., Thurston, D., & McCord, R. P. (2020). Constricted migration is associated with stable 3D genome structure differences in melanoma cells. *BioRxiv*, 856583.

<https://doi.org/10.1101/856583>

## Presentations

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University of Tennessee Medical Center, Knoxville, TN

Sanders, J.T., **Freeman, T.**, Xu, Y., Gollosi, R., Stallard, M., Balajee, A.S., McCord, R.P. (2019, April). *Ionizing radiation exposure causes universal and cell type-specific changes in 3D genome organization in human cells*. Poster session at Cancer Community of Scholars Symposium.

University of Tennessee, Knoxville, TN

**Freeman, T.**, Raines, T., McCord, R.P., & Fernandez, E. (2018, April). *Genomic binding studies and growth surface comparisons in liver cancer cells*. Poster session at Exhibition of Undergraduate Research and Creative Achievement (EURECA).

**Freeman, T.**, Yue, Y., & Hong, G. (2014, May). *Molecular docking of quaternary structure of protein complex associated with Tay-Sachs Disease*. Pre-Collegiate Research Scholars Poster Session.

## Research Experience

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University of Texas at Austin

Graduate Research Assistant – Elif Sarinay Cenik, PhD Lab 2020 – Current  
Determine role of nucleolus in organizing the genome in *C. elegans*.

Graduate Research Assistant – Rotating Labs 2019 - 2020  
Kyle Miller, PhD Lab; Elif Sarinay Cenik, PhD Lab; Vishwanath Iyer, PhD Lab.

University of Tennessee, Knoxville

Research Assistant - Rachel Patton McCord, PhD Lab 2018 – 2019  
Continue leading role in genomic binding studies from undergraduate research. Contribute to ongoing lab projects including 3D genome organization studies using Hi-C.

Undergraduate Research Assistant - Rachel Patton McCord, PhD Lab 2017 – 2018  
Took leading role in research project to determine genomic binding positions of a nuclear receptor in humans using ChIP-seq. Also took supporting roles in other research projects.

Independent Undergraduate Researcher - Hong Guo, PhD Lab 2014 – 2016  
Learned to write, edit, and execute CHARMM scripts in UNIX shell with the goal of studying enzyme molecular dynamics.

Pre-Collegiate Research Scholar - Hong Guo, PhD Lab 2013-2014  
Conducted independent computational research project on quaternary structure of protein-lipid complex implicated in Tay Sachs disease using the program MOE.

## Education

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University of Texas at Austin  
Doctor of Philosophy – Cell and Molecular Biology  
Track: Molecular Genetics

University of Tennessee, Knoxville  
Bachelor of Science, Biological Sciences - Biochemistry & Cellular and Molecular Biology  
Minor: Philosophy

## Scholarships and Awards

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University of Texas at Austin, Molecular Biosciences Department  
BIO TA award, 2021

University of Texas at Austin, College of Natural Sciences  
Natural Sciences TA/AI Award, 2021

East Tennessee Foundation  
Gordon W. and Agnes P. Cobb Scholarship

University of Tennessee, Knoxville  
UT Volunteer Scholarship  
Hope Scholarship with Merit Supplement

## Volunteer Experience

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University of Tennessee Medical Center, Knoxville, TN  
Volunteer Student Intern - Cole Neuroscience Center & Pat Summit Clinic 2015 – 2017  
Administered cognitive tests to patients and reported scores and relevant information to medical care providers.

## Student Organizations

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Undergraduate Research Students' Association  
Pursuit Review Board Editor 2016  
Read and edited submissions for *Pursuit* - The Journal of Undergraduate Research at the University of Tennessee.  
Undergraduate Research Symposium Moderator 2016  
Introduced speakers and conducted presentations in a timely manner.