

**Taylor Parker, Winner of the Lois Jean Durham Scholarship**  
**By Sarbjeet Kaur, Director of Student Awards**



The Lois Jean Durham Scholarship is given to junior woman/non-binary chemistry student beginning her/their junior year as of the fall semester following the announcement at an accredited college or university. The 2024 winner is Taylor Corbin Parker of Duke University. She was nominated by Prof. Charlie Cox.

Taylor graduated summa cum laude with distinction from Duke University in May 2024, earning a Bachelor of Arts in Chemistry as well as minors in Biology and Classical Civilizations. Since her junior year, she worked under Dr. Kevin Welsher, pursuing two projects in the field of real-time three-dimensional single-particle tracking (RT-3D-SPT). The first used simulations to test a preliminary application of a Bayesian approach to single-particle tracking, and in collaboration with Dr. Stacey Niver, Taylor extracted signal and background coefficients to help implement the new

algorithm. She then transitioned to a project in which she compared RT-3D-SPT and fluorescence correlation spectroscopy (FCS). This work ultimately showcased the utility of RT-3D-SPT, which moves away from ensemble averaging. While pursuing research in the Welsher lab, Taylor also pursued research in the field of public health, focusing on vaccine hesitancy and patient choice of doctor. Additionally, she worked as a tour guide at Duke University and as a supervisor for Educational Justice, a nonprofit based in her hometown of Louisville, Kentucky. Finally, Taylor volunteered with the Duke Help Desk, which connects patients with programs to address any unmet social needs. She looks forward to pursuing a career that combines these varied interests.