

Just Announced: Sydney Collins is the Inaugural Trawick Family Research Fellow

My name is Sydney Collins, and I am honored to be the Inaugural Trawick Family Research Fellow. I grew up in Cincinnati, Ohio and moved to Durham, North Carolina to attend Duke University. I graduated from Duke in 2022 with a BSE in Biomedical Engineering as well as with Minors in Chemistry and Psychology with plans to take some gap years before attending medical school. My interest in cardiology was sparked by my own family's experience with heart disease, and I had the great opportunity to start a formal collaboration between the leaders of ultrasound engineering at Duke and the Duke Pediatric Echo Lab in the summer after my graduation. That experience led to my drive to dig deeper into cardiac research, and specifically investigate novel ways to improve the use of cardiac imaging for single ventricle patients.

I am currently designing a system that uses 3-dimensional ultrasound imaging to calculate 3D strain, which is a measurement that can be used to assess how well the heart is functioning. This 3D method may be particularly helpful for single ventricle hearts, since their complex geometries often do not allow strain to be calculated from existing imaging programs. I am also excited to launch several new imaging projects that will help us better understand accuracy of fetal imaging, the best use of advanced imaging in patients with complex heart disease, and diastolic function – all with the goal of improving our care of single ventricle patients at every stage of life.