Synovial Sarcomas
Zoe Weissberg (COL 2018)
Advisor: Ronnie Sebro

Thanks to a generous research stipend from Alex's Lemonade Stand Foundation (ALSF), I was able to work with Dr. Ronnie Sebro, a musculoskeletal radiologist, for ten weeks this summer. For our first project, we were looking at synovial sarcomas, which are rare soft tissue cancers that mostly affect children, adolescents and young adults. These tumors often form in the extremities and can metastasize to the lungs, which is very dangerous for patients. From the databases we had access to, we looked for factors that could predict whether and how quickly the disease spreads to the lungs. If physicians know what to look for when predicting how fast the cancer will spread, they can tailor imaging tests and treatments to each patient depending on their risk factors, which can result in higher survival rates for patients.

Because synovial sarcoma is so rare, most physicians see it very rarely in their career, and may not be used to diagnosing it. My second project involved recording what synovial sarcoma is often mistaken for, and writing a paper to help physicians, especially radiologists, avoid these pitfalls and get the diagnosis right. The faster synovial sarcoma is diagnosed, the sooner physicians can start treating the tumor appropriately and aggressively.

For both projects, I spent a lot of time reading patient charts, looking at various imaging studies, and reading the literature surrounding soft tissue cancers. I now know so much more than I did about different types of cancer, their treatment, and imaging in general.
This summer has reinforced my desire to work in pediatric medicine. I would love to continue to be a part of the fight against childhood cancer throughout my career, be it as a clinician or a researcher.