



# Alex's Lemonade Stand Foundation

## Ewing Sarcoma Impact Report



[AlexsLemonade.org](https://AlexsLemonade.org)



**Alex's Lemonade Stand Foundation (ALSF) emerged from the front yard lemonade stand of 4-year-old Alexandra “Alex” Scott, who was fighting cancer and wanted to raise money to find cures for all children with cancer. By the time Alex passed away at the age of 8, she had raised \$1 million. Since then, the Foundation bearing her name has evolved into a worldwide fundraising movement and the largest independent childhood cancer charity in the U.S. ALSF is a leader in funding pediatric cancer research projects across the globe and providing programs to families affected by childhood cancer. For more information, visit [AlexsLemonade.org](https://AlexsLemonade.org).**



With Gratitude

## Dear Friend,

All of us here at Alex's Lemonade Stand Foundation (ALSF) would like to sincerely thank you for your support of Alex's mission to find new treatments and cures for childhood cancers like Ewing sarcoma.

Your support is helping researchers to develop preliminary data, publish their findings, and push forward innovative treatment options. Thanks to you, we are closer to a day where no child will have to suffer from Ewing sarcoma.

We are truly honored to fight childhood cancer by your side. Thank you for being the driving force behind life-saving cures. Please don't hesitate to reach out if you need anything from us here at ALSF.

Until there's a cure,



**Liz & Jay Scott**

Alex's Parents & Co-Executive Directors

*Alex's Lemonade Stand Foundation*



# **Thanks** to Supporters Like You

**ALSF is the largest independent childhood cancer charity in the U.S., focused on funding critical research and supporting childhood cancer families.**



More than \$300M raised since 2005



Funded over 1,500 medical research grants at nearly 150 institutions



Supported nearly 30,000 families through key programs like Travel For Care

ALSF is the only childhood cancer research organization that has been given the NCI Peer-Reviewed Funder Designation for rigorous selection of research and grants.

# Meet a **Ewing Sarcoma Hero**



## RACHEL



Rachel loves math and reading and is an excellent artist. Lately, she's also been improving at swimming and wheelchair basketball – things she might not have been able to do since her cancer diagnosis.

Rachel's family thought she had sprained her ankle at first, but then an X-ray uncovered a tumor in her tibia and fibula. She had Ewing sarcoma. She ended up needing nine months of chemotherapy, an above-the-knee amputation and six weeks of radiation treatment. Today, she has a prosthetic leg but no evidence of disease!

Rachel is a hero to her family because she always remains true to herself. “She is real,” said her mom, Marcy. “She cries and is mad and then she keeps pushing through treatment and obstacles no matter what.” Rachel's family hopes that Rachel will be forever free from cancer and that she will overcome her disability to live a long and productive life.

Marcy also wants those who may also be facing a childhood cancer diagnosis to know that while the treatment seems impossible when you look at it, just take it one day, one minute, one second at a time. There is hope.

“It's special that Alex's Lemonade Stand Foundation exists and that something as American as a lemonade stand in a front yard can be the way we find a cure for cancer.”

-Marcy, Mom of Childhood Cancer Hero, Rachel

# **ALSF-Funded** Projects in Ewing Sarcoma

Thanks to you, we have been able to continue funding breakthrough research for more cures. Read through some of our recently funded research projects in Ewing sarcoma below:

## **Utilizing chromatin directed inhibitors to regulate gene expression in Ewing sarcoma for therapeutic benefit**

Justin Sperlazza, MD/PhD  
University of North Carolina  
Young Investigator Grants, Awarded 2024

## **Defining how unique properties of the pediatric immune system contribute to poor efficacy of checkpoint blockade in children**

Adrienne Long, MD/PhD  
Stanford University  
Young Investigator Grants, Awarded 2024

## **Exploiting a Novel DNA Repair Defect in Ewing Sarcoma**

Shuhei Asada, MD/PhD  
Dana-Farber Cancer Institute  
Young Investigator Grants, Awarded 2024

## **Understanding novel mRNA splicing in Ewing Sarcoma**

Madelyn Flickinger  
Georgetown University  
POST Program Grants, Awarded 2024



A complete list of ALSF-funded Ewing sarcoma projects can be found at:  
[AlexsLemonade.org/childhood-cancer/type/ewingsarcoma/grants](https://AlexsLemonade.org/childhood-cancer/type/ewingsarcoma/grants)

# Research **in Progress**

## **Utilizing Chromatin Directed Inhibitors to Regulate Gene Expression in Ewing Sarcoma for Therapeutic Benefit**

**Justin Sperlazza, MD/PhD**

**University of North Carolina**



Alex's Lemonade Stand Foundation has always believed that attracting and retaining the best and brightest early career scientists is critical to the future of childhood cancer research. Justin Sperlazza, MD/PhD is one such scientist. He was awarded a 2024 Young Investigator Grant, designed to fill the critical need for startup funds for less experienced researchers to pursue promising research ideas. Dr. Sperlazza's idea: to identify new medicines to enhance CAR-T cell therapy for pediatric solid tumors.

Ewing sarcoma is the second most common bone cancer in children, and the treatment of Ewing sarcoma continues to rely on traditional chemotherapy, surgery, and radiation. Unfortunately, children who have Ewing sarcoma that returns after initial therapy, or whose disease has spread to other places in their body, a process known as metastasis, often do not survive their disease. Immunotherapies are new approaches to treating cancer using the patient's own immune system. One promising immunotherapy option modifies a patient's own T-cells to express a Chimeric Antigen Receptor (CAR), which allows the cells to detect a specific tumor cell and eliminate the cancer. CAR T-cell therapy has revolutionized the treatment of blood cancers and holds great promise for treating children with solid tumors, such as Ewing sarcoma. However, pediatric solid tumors lack consistent targets, which reduces the potential therapeutic benefit of CAR-T cells. Gene expression changes in the tumor determine if a cancer cell contains a target or not. Fortunately, recently discovered molecules hold the potential to modify these gene changes.

This project seeks to improve the treatment of Ewing sarcoma by utilizing small molecules to alter how the cancer cells read their DNA, known as gene expression. If successful, the project will lay the groundwork for improving the implementation of specific CAR-T cells that are currently being investigated in multiple clinical trials nationwide.



**Thank You**

for all you do to help kids with cancer!

