

# CANCER

# IMMUNOTHERAPY

# PROGRAM



The Cancer Immunotherapy Program at Children’s Hospital of Philadelphia (CHOP) offers cellular immunotherapy, an investigative treatment option, for patients with treatment-resistant forms of acute lymphoblastic leukemia (ALL), non-Hodgkin lymphoma, Hodgkin lymphoma, and sarcoma.

## LEADERS IN THE FIELD

As world leaders in pediatric cancer research and care, CHOP doctors and researchers helped develop the first national and international clinical trials for an immunotherapy known as chimeric antigen receptor (“CAR”) T cell therapy for children with advanced ALL. Stephan Grupp, MD, PhD, director of the Cancer Immunotherapy Program, is the lead investigator for U.S. and global trials sponsored by Novartis.

## GROUNDBREAKING CLINICAL TRIALS

The team members at the Cancer Immunotherapy Program determine whether a clinical trial using immunotherapy is right for a patient depending on the diagnosis and the stage of the disease. We have reported a complete remission rate of >90% on our largest clinical trial, which opened in 2012. Since then, we have begun additional trials in other cancers and using other targets.

## CONDITIONS WE TREAT

- ALL
- Hodgkin lymphoma
- Non-Hodgkin lymphoma
- Soft tissue sarcoma (synovial sarcoma)

## EXPERIENCED AND INNOVATIVE

- In 2012, we treated the first pediatric patient with highly active cell therapy, Emily Whitehead, who remains in complete remission with no further therapy five years later.
- CHOP has treated the most patients in pediatrics, exceeding 150 patients in June 2017.
- We have the only open trial for “retreatment” of patients with relapsed or refractory CD19+ leukemia and lymphoma who were previously treated with cell therapy.
- We are leading clinical trials into the first form of CAR T cell therapy to be awarded Breakthrough Therapy designation by the U.S. Food and Drug Administration for the treatment of relapsed and refractory adult and pediatric ALL.
- We identified and applied a treatment to decrease the severity of potentially life-threatening side effects of T cell therapy. This approach (IL-6 blockade) is now used worldwide for children and adults treated with CAR T cells and other immunotherapies.
- We are leading the field in treating patients with long-lasting cell therapies that allow them to avoid transplant. Only 10% of our patients have needed or chosen to go on to stem cell transplant.
- Our patient support team at the Cancer Center is one-of-a-kind: Beyond clinical care, we offer psychosocial services, programs targeted to adolescents and young adults, fertility preservation and survivorship programs. We support patients along every step and into the transition to adulthood.



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## OUR TEAM

The Cancer Immunotherapy team is made up of oncologists, nurse practitioners, nurses, clinical researchers, and data coordinators with extensive knowledge of T cell therapy.

**Stephan Grupp, MD, PhD**, is the principal investigator for several immunotherapy pilot studies, including one for children who have been previously treated for leukemia/lymphoma.

**Shannon Maude, MD, PhD**, is the principal investigator for a pilot study targeting pediatric patients with CD19+ B cell malignancies who were previously treated with an engineered cell therapy product.

**Richard Aplenc, MD, PhD, MSCE**, leads the Leukemia/Lymphoma Section and is interested in cell and other novel therapies for AML.

**Rochelle Bagatell, MD**, has expertise in the care of children with solid tumors, particularly neuroblastoma and sarcomas.

**Susan Rheingold, MD**, is the principal investigator for a pilot study using engineered T cells in patients with refractory or relapsed Hodgkin lymphoma.

## FOCUSED ON PATIENT SUPPORT

The Cancer Immunotherapy team patient navigation program ensures seamless, coordinated care and communication among the patient's various care providers. We offer education, support and guidance to patients and families throughout their treatment at CHOP. Claire White, BSN, RN, serves as the primary point of contact for referring care providers and families once a patient referral is initiated.

## ABOUT THE CANCER CENTER

The Cancer Center is staffed by internationally recognized pediatric oncologists and teams with expertise in every type of pediatric cancer, from the most common to the most rare. We mobilize teams of experts to ensure each child, at every stage of treatment, has personalized care and gets the best possible recommendations. In addition, CHOP has the largest pediatric oncology research program in the United States, and we move scientific advances quickly into clinical therapies.

### QUESTIONS • REFERRALS • INFORMATION

Get more information about the Cancer Immunotherapy Program: [chop.edu/cancerimmunotherapy](http://chop.edu/cancerimmunotherapy).

Learn about the critical time period when immunotherapy treatment can be administered.

Find out if a specific patient might be a candidate for a clinical trial.

To initiate a new referral, please contact:

**267-426-6298**

**CHOPUSA@email.chop.edu**

Learn more at:

**[chop.edu/immunotherapy](http://chop.edu/immunotherapy)**

