

Cancer Program



The Cancer Program at Cincinnati is home to a world-class multidisciplinary team of medical specialists who care for children, adolescents and young adults with cancer and related conditions. We are a national and international referral center for pediatric and young adult cancer research, training and therapy innovation.

CONTACT US

For patient referrals:

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LEADING THE WAY IN PEDIATRIC CANCER INNOVATION

At the Cincinnati Children's Cancer Program, we are on a mission to develop cures for children and young adults with high-risk cancers. We use team science and disruptive translational research to develop innovation treatments.

- Basic research from our teams directly led to the 2020 FDA approval of Selumetinib for children with neurofibromatosis and life-threatening plexiform neurofibromas.
- Our translational research directly led to the 2021 pediatric, FDA approval of the novel anti-leukemia drug, Vyxeos, for relapsed and treatment-refractory acute myeloid leukemia.
- The Proton Therapy Center just completed the world's first human, clinical trial of ultra-high dose rate FLASH proton therapy. This technology is built upon over \$4 million of preclinical in vitro and animal FLASH research awards.
- Our proton research team is testing new FLASH proton therapies to improve outcomes and reduce side effects in brain tumors, sarcomas, neuroblastoma and lymphomas.
- The program is a leading research and referral center for virus-specific T-cell therapies for refractory infections and viral-driven lymphomas. Our program has infused 187 patients with 250+ infusions.
- Our team developed a novel individual, cell-by-cell analysis technique to build "maps" of bone marrow tissue. This work could lead to the creation of highly customized blood cell organoids that mimic bone marrow function.
- The program's real-time genomic profiling of histiocytoses identified molecular signatures associated with small molecule-targetable kinase alterations. The team also tested and proved the efficacy of trametinib and dabrafenib in these conditions.



Cincinnati Children's is ranked #3 in cancer and #3 in the nation among Honor Roll hospitals.

Cincinnati Children's/University of Cincinnati is ranked as the #2 academic pediatric department in the nation.

CONDITIONS TREATED

- Leukemia and Lymphoma
- Brain Tumors
- Neuroblastoma
- Liver and Kidney Tumors
- Retinoblastoma
- Sarcoma
- Neurofibromatosis
- Cardio-Oncology
- Cancer Survivorship
- Oncofertility
- Young Adult Cancer
- Cancer Rehabilitation
- Pediatric Surgical Oncology
- Targeted Cancer Genomics and Immune Therapy
- Proton Therapy

COMPREHENSIVE, INTEGRATED CARE

- More than 2,300 pediatric bone marrow transplants throughout the program's history
- Largest U.S. center for new anticancer drugs in children
- Engineered anti-cancer and antiviral T-cell immunotherapies
- Marrow stem cell gene engineering—immunodeficiencies and sickle cell anemia/thalassemia
- Pediatric MIBG and Radiopharmaceutical Therapy Center
- One of the nation's oldest and largest programs for survivors of pediatric cancers
- The Hemangioma and Vascular Malformation Center is one of the largest multidisciplinary centers in the country for vascular anomalies
- More than 86 National Institutes of Health (NIH) grants in FY22
- Accredited with commendation by the American College of Surgeons and the Foundation for the Accreditation of Cellular therapy
- National Marrow Donor Program best performance in donor search and selection recognition
- First inpatient pediatric cancer rehabilitation program in the world to be accredited by the Commission on Accreditation of Rehabilitation (CARF)

CANCER PROGRAM TEAM

- Over 1,000 Cancer and Blood Diseases Institute employees
- 87 MD, MD/PhD and PhD faculty
- 50 Advanced Practice Providers
- 386 Registered nurses
- 45 Trainees—clinical and research fellows

CLINICAL FACILITIES

- 92 inpatient beds on specialized hematology, oncology and BMT units
- Dedicated Pediatric Proton Therapy and Research Center
- 35 bed clinic; 13 bed infusion center
- Digital Home/Remote Care Systems

Based on FY22 data.

NOVEL THERAPIES AND RESEARCH

We are national leaders in developing the next generation of innovative treatments:

- National Cancer Institute (NCI) Pediatric Phase I Consortium
- Children's Oncology Group (COG)
- CONNECT Brain Tumor Consortium
- New Approaches to Neuroblastoma Consortium (NANT)
- Collaborative Ependymoma Research Network (CERN)
- Department of Defense Neurofibromatosis Clinical Consortium
- Pediatric Brain Tumor Consortium
- Therapeutic Advances in Childhood Leukemia and Lymphoma
- Pediatric Bone Marrow Transplant Consortium
- Particle Therapy Co-Operative Group (PTCOG)

INTERNATIONALLY RECOGNIZED LEADERSHIP

John Perentesis, MD, FAAP, Director of the Division of Oncology is a nationally recognized expert in the development of new drugs and molecular therapies for pediatric and young adult cancers and leukemia. His laboratory has developed novel anticancer drugs and discovered genes important in the growth of normal and malignant cells. He serves in key roles for the National Cancer Institute's Investigational Drug Steering Committee and the Children's Oncology Group.

Peter de Blank, MD, MSCE, Co-Medical Director of the Brain Tumor Center, is an expert in pediatric low-grade gliomas, neurofibromatosis (NF), imaging biomarkers and functional outcomes. Dr. de Blank chairs a low-grade glioma study for COG and has leadership roles for both the International Response Endpoint in NF and Schwannomatosis (REINS) group and the National NF Consortium.

James Geller, MD, FAAP, Medical Director of the Kidney and Liver Tumors Program and Co-Medical Director of the Retinoblastoma Program, is an international expert in the fields of kidney, liver and retinoblastoma tumors. He serves as the vice-chairman of the COG renal tumor committee, and Chairs multiple national efforts (clinical trials and biological studies) to improve treatment of high risk liver and kidney cancers.

Trent Hummel, MD, Co-Medical Director of the Brain Tumor Center, is a member of the COG Central Nervous System (CNS) Committee, the Pediatric Brain Tumor Consortium and the National NF Consortium. Dr. Hummel focuses on developing novel therapeutics to treat pediatric CNS tumors, including NF Types 1 and 2, and poor prognosis tumors such as high-grade gliomas and diffuse intrinsic pontine gliomas.

Maureen O'Brien, MD, MS, Director of the Leukemia/Lymphoma Program, is a national expert in pediatric leukemia with a focus in high-risk and relapsed acute lymphoblastic leukemia. She leads multiple national efforts to develop novel agents for relapsed leukemias, including immunotherapies and molecularly targeted therapies.

Joseph Pressey, MD, Director of the Sarcoma Program and co-director of the Young Adult Oncology Program, focuses his research on the development of novel therapies for high-risk and recurrent/refractory solid tumors.

Brian D. Weiss, MD, Medical Director of the Neuroblastoma Program, leads national research efforts in MIBG therapy, immunotherapy and transplant therapies. He also specializes in tumors in patients with NF Type 1, and serves as vice-chairman of the national NF1 Clinical Trials Consortium, and as chair of the plexiform neurofibroma committee in the consortium.

Robin Norris, MD, MS, MPH is the director of Clinical Research for the Division of Oncology and co-director of the Young Adult Oncology Program. Her research is focused on the development of novel therapies for relapsed and high-risk leukemia/lymphoma. She also specializes in the care of young adult patients with Hodgkin Lymphoma.

Ahna Pai, PhD, Director, Patient and Family Wellness Center in the Cancer and Blood Diseases Institute, leads a psychosocial team that includes nationally and internationally renowned experts in social work, child life, holistic health, music therapy, school intervention, pastoral care, psychology and neuropsychology.