

Dream Team Takes New Approach to Childhood Cancers

(Photo: R. Buer)



Crystal Mackall, M.D.

Crystal Mackall, M.D., Chief of CCR's Pediatric Oncology Branch, has been named co-leader of a Stand Up to Cancer (SU2C)—St. Baldrick's Foundation Pediatric Dream Team: Immunogenomics to Create New Therapies for High-Risk Childhood Cancers.

Mackall, along with team leader John Maris, M.D., Director of the Center for Childhood Cancer Research at The Children's Hospital of Philadelphia, helped bring together a group of researchers from seven institutions across North America with unparalleled expertise in the fields of genomics, immunotherapeutics, and pediatric oncology. Their goal is to find new treatments for the deadliest childhood cancers, including malignant brain tumors, high-risk leukemias, neuroblastomas, and sarcomas.

The Dream Team is addressing unique challenges associated with childhood cancers, which are less likely to arise from the types of recurring mutations that can be

countered with small molecule drugs developed against cancer in adults.

First, they are using genomics to identify cell-surface molecules that are specifically expressed in high-risk pediatric cancers. Once validated, these molecules will serve as targets for the development of immunotherapeutic strategies, including specific antibodies, immunotoxins, and engineering immune cells. Included in the plan will be pivotal first-in-child trials of the most promising candidates.

"We are confident that this combined approach will lead to novel therapies that will improve outcomes for some of the most lethal childhood cancers," said Mackall.