

## University of Iowa Pediatric Cancer Research Key Contact and Research Initiatives

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Updated information from 1/28/2026.

These are all projects/trials that are underway and need funding.

Laboratory-based research projects:

- \* Investigation of the developmental and environmental origins of pediatric cancer.
- \* Overcoming mechanisms of drug resistance in pediatric leukemia.
- \* Development of novel, biomarker-based approaches to treat pediatric solid tumors.
- \* Reversing Resistance to Inhibitors of Ribonucleotide Reductase (RNR).
- \* Discovery and validation of repurposed drugs that target the DNA replication stress pathway.
- \* Regulation and targeting of the 4E-BP1 tumor suppressor in pediatric solid tumors.
- \* Development of differentiation-based therapy for sarcomas.
- \* Targeting mitochondrial and metabolic pathways in pediatric leukemia.

Laboratory- and clinic-based projects

- \* Pediatric Oncology Specimen and Clinical Data Bank.
- \* Enhancing steroid efficacy in B-ALL
- \* Detection and quantification of circulating tumor DNA (ctDNA) in the spinal fluid of children with brain tumors.
- \* High-throughput drug screening using pediatric, patient-derived, solid tumor organoids.

Clinic-based research trials and projects:

- \* Pharmacogenomic Testing in Children and Young Adults Receiving Care in the Pediatric Oncology Clinic at the University of Iowa.
- \* Phase I study of intrathecal azacitidine and nivolumab in patients with recurrent high-grade glioma.
- \* Chemotherapy induced thrombocytopenia & outcomes.
- \* Geographic distribution of pediatric cancer in Iowa.
- \* Single-patient (n-of-1) trials for children with cancer.
- \* Evaluation of maintenance therapy in children with sarcomas.