



Childhood Cancer Research Highlights

The American Cancer Society's Investment



The American Cancer Society is deeply committed to finding new answers that will help every child and family affected by cancer.

Research Grants

The American Cancer Society funds scientists and medical professionals who research cancer or train at medical schools, universities, research institutes, and hospitals throughout the United States.

We provide millions of dollars to cancer research through multiple grants. Here are some examples of the research areas and scientists the American Cancer Society currently funds.

Digital Pain Buddy May Help Ease Pain and Stress in Kids With Cancer

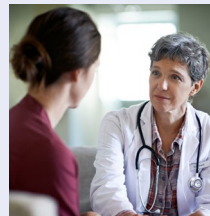


Grantee: Michelle Fortier, PhD
Institution: University of California, Irvine
Focus Area: Palliative Care and Symptom Management
Research Phase: Technology Development, Randomized Study

Many children who have cancer don't have a strong enough understanding of pain to be able to talk about it. This can lead to poorly managed pain and other symptoms, which can cause distress and a poorer quality of life. Fortier is a licensed clinical psychologist. Her goal is to close this knowledge gap with mobile technology.

Pain Buddy is a digital tool for kids to use to track their pain and symptoms. The diary information will be immediately accessible by the child's cancer team, allowing them to act when needed. The digital tool will also teach kids about ways to think about pain and ways to change their behavior that may help ease symptoms. This study has the potential to improve the quality of life in the 10,270 kids who are diagnosed with cancer each year.

Improving Relationships Between Parents and Their Child's Cancer Doctor



Grantee: Jennifer Mack, MD, MPH
Institution: Dana-Farber Cancer Institute in Boston
Focus Area: Palliative Care and Symptom Management
Research Phase: Pilot Study

Mack's research focuses on improving the relationship between doctors and the parents of a child who has cancer. Poor relationships can cause miscommunication and anxiety. They can also lead to unnecessary medical care, which can be a problem for patients and can lead to an inefficient use of health care resources.

Mack's team will study relationships that are working well and ones that are difficult. Her goal is to learn strategies to identify and repair difficult relationships between parents and cancer care teams. The next step will be to design interventions to prevent or ease this common source of distress. Then she'll put those interventions into practice.

Stopping Cholesterol Production May Treat Certain Brain Tumors in Kids



Grantee: Zeng-jie Yang, MD, PhD

Institution: Fox Chase Cancer Center in Philadelphia

Focus Area: Nutrition, the Environment, and Cancer

Research Phase: Translational

Medulloblastoma is the most common type of brain tumor in children. Treatment has improved, yet a significant number of patients die. Even survivors have severe side effects from aggressive treatments. Children can be left with hormonal issues and problems with thinking. In earlier studies, Yang's team learned that cholesterol is required for medulloblastoma to grow.

With his American Cancer Society grant, Yang's research team will further study how cholesterol affects tumor growth. They'll also test cholesterol inhibitors to treat this brain cancer. It's a promising strategy since cholesterol inhibitors are safe, low cost, and readily available.

Early Studies for a New Targeted Therapy for Aggressive Acute Childhood Leukemias



Grantee: Jolanta Grembecka, PhD

Institution: University of Michigan in Ann Arbor

Focus Area: Cancer Drug Discovery

Research Phase: Preclinical Research, Cell Models to Mouse Models

Grembecka is finding better ways to treat specific, aggressive types of leukemia. MLL leukemias have traits of both acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL). Up to 80% of all acute leukemias in babies are MLL types. And they don't respond well to standard treatments.

Grembecka's team is studying targeted therapies to inhibit the development and progression of acute leukemia. The target is lens epithelium derived growth factor (LEDGF). The new drug will block the interaction of LEDGF with two different proteins.

The most-promising drugs from the lab will be tested in mice. Ultimately, Grembecka's research may lead to new treatments for acute leukemia and possibly solid tumors.

From Our Researchers on Staff

The American Cancer Society Surveillance and Health Services Research program analyzes data on childhood cancers each year as part of its *Cancer Facts & Figures* report. Key findings from the report include:

- An estimated 10,270 new cases of cancer will be diagnosed in children from birth to age 14 in 2017. In that same age group, 1,190 deaths from childhood cancer are expected to occur in 2017.
- Mortality rates for cancer in children from birth to age 14 have decreased by more than 66% over the past 40 years. In 1969, the rate was 6.5 deaths per 100,000 children. In 2014, the rate was 2 per 100,000 children.
- An estimated 65,190 cancer survivors ages 0 to 14 years and 47,180 survivors ages 15 to 19 years were alive in the United States as of January 1, 2016.

Other Ways We Support Those Facing Childhood Cancer

In addition to leading and funding childhood cancer research, the American Cancer Society supports the families of children who have cancer with education, support services, and advocacy.

Our nonprofit, nonpartisan advocacy affiliate, the American Cancer Society Cancer Action NetworkSM (ACS CAN), advocates for childhood cancer through public policy. For instance, ACS CAN:

- Lobbies for increased federal funding for research and new legislation to promote palliative care
- Supports patient protection provisions in the Affordable Care Act, as these are vital to childhood cancer and survivorship

