

# BLOOD CANCER RESEARCH LEADS THE WAY

Breakthrough advances in blood cancer research are now helping patients with other cancers and diseases.



## 1940s - 1950s

Chemotherapy, medicine used to kill cancer cells, was established first for leukemia, and later used to treat other cancers.



## 1970s - 1980s

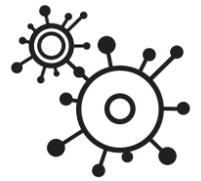
The 1970s brought an early understanding of genomics, which is the study of genes and their functions, laying the groundwork for precision medicine approaches to treatment.



## 1990s - 2000s

By the 1990s, the pursuit of genomics was followed by the first FDA approval of a revolutionary targeted therapy known as imatinib (Gleevec®) to treat leukemia.

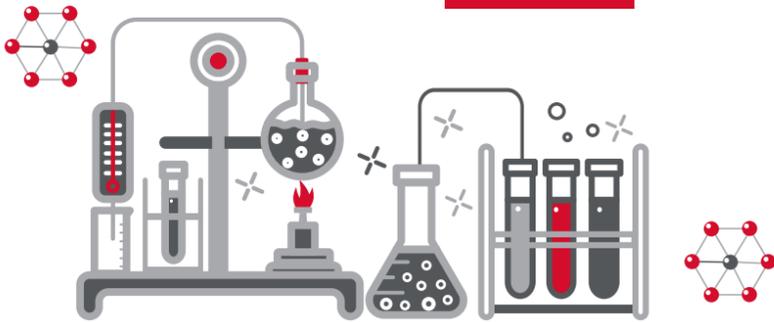
This drug was the first to target the “kinase” enzyme. Today, more than 40 “kinase inhibitors” are approved to treat other cancers.



## 2000s - 2020s

LLS-funded researchers played an instrumental role in the advancement of immunotherapy.

In 2017, a groundbreaking treatment called “CAR T-cell immunotherapy” was FDA approved for blood cancer, and it is now being tested in more than 500 clinical trials for other cancers.



“ Cancer cells in the blood are more accessible than those in solid tumors, making it easier to study cancer-causing molecules, measure the effects of new therapies and make pivotal biologic discoveries applicable to other diseases. ”

**GWEN NICHOLS, MD, CHIEF MEDICAL OFFICER, LLS**

## 5-YEAR

SURVIVAL RATES FOR BLOOD CANCERS HAVE INCREASED SINCE THE 1960S BY

2x 3x **4x** AND EVEN

**40%**

OF ALL NEW CANCER THERAPIES APPROVED BY THE U.S. FOOD & DRUG ADMINISTRATION (FDA) SINCE 2000 ARE BLOOD CANCER THERAPIES.



## REVOLUTIONARY APPROACHES FOR BLOOD CANCER

are now being tested in clinical trials with other cancers and diseases, including:

**BONE CANCER**

**BRAIN CANCER**

**BREAST CANCER**

**DIABETES**

**KIDNEY CANCER**

**LIVER CANCER**

**LUNG CANCER**

**LUPUS NEPHRITIS**

**MELANOMA**

**MULTIPLE SCLEROSIS**

**OVARIAN CANCER**

**PANCREATIC CANCER**

**PROSTATE CANCER**

**RHEUMATOID ARTHRITIS**

**STOMACH CANCER**

**SKIN CANCER**