

"It takes more than courage to beat cancer."

At first glance, Sidney Farber may not fit the criteria of what is expected in the Seevak Competition. He did not work to improve tolerance or human rights or even take a courageous stand for justice. However, Dr. Sidney Farber embodies the aspects of the Seevak Competition in his commitment to improving mankind, not through fighting for justice, but fighting for the lives of others.

Cancer is one of the leading causes of death in the world and has claimed countless lives worldwide. Dr. Farber spent his life working to find a cure for cancer, especially leukemia in children. He was truly a pioneer in his field; he became known as the father of the modern era of chemotherapy for his extensive research in the field and discovered aminopterin, a foliate antagonist that allows leukemia to go into remission. Because of his groundbreaking work, a prognosis of cancer is no longer a death sentence. The survival rate for childhood leukemia has increased from about 50% in 1970 to more than 80% today. As time progresses, the Dana-Farber Cancer Institute (DFCI), the institution started by Dr. Farber (and eventually named for him), continues in Sidney Farber's mission to find a cure for cancer.

The Dana-Farber Cancer Institute's ultimate goal is the eradication of cancer, AIDS, and related diseases and the fear that they engender.

# Sidney Farber's Biography

Born in Buffalo, New York in 1903, Sidney Farber grew up the third eldest of fourteen children. After graduating from the University of Rochester in 1923, he began his first year of Medical School at the Universities of Heidelberg and Freiburg in Germany. Following one year in Germany, Farber transferred to Harvard Medical School in Boston, where he graduated in 1927. Farber remained in Boston, and after completing graduate work in pathology under mentor Kenneth Blackfan at the Peter Bent Brigham Hospital, Farber was offered a position as resident pathologist at Children's Hospital, where he became the first full-time pathologist in 1929. He also became an assistant in pathology at Harvard Medical School in 1928. At Harvard Medical School and Children's Hospital, Farber established programs of teaching and research, which were focused on childhood disorders.

While working at Harvard Medical School, Farber became known as the 'father' of the modern era of chemotherapy of neo-plastic disease, as well as the 'father' of modern pediatric pathology with his extensive research work. Leukemia at the time was thought to be a death sentence. However, Farber was persistent in finding a cure for this disease. Because leukemia is a disease of the white blood cell-making tissue of the bone marrow, Farber knew that if he could find a drug to chemically block folic acid (which stimulates growth of the bone marrow), it could stop the production of the bad bone marrow which causes the disease. It was at Harvard Medical School where Farber completed a preclinical and clinical evaluation of aminopterin, a "foliate antagonist in childhood acute lymphoblastic leukemia." Out of 16 children used in the experiment, 10 went into remission. These trials showed for the first time that induction of hemotological and

clinical remission in leukemia was possible. Leukemia was not necessarily a death sentence.

The results of Farber's trial were reported in a June 3, 1948 issue of the New England Journal of Medicine and were met with mixed reviews. Researchers were wary of the findings which they had worked long to discover. However, practicing physicians and pediatricians praised the new findings. The publication of Farber's results also caught the eye of the Variety Club of New England, a charitable organization looking to invest in a promising venture. The club approached Farber and established the Children's Cancer Research Foundation, as well as funded an outpatient clinic at Children's Hospital which Farber had started. The foundation had an unforgettable night on May 22, 1948 when one of its patients being treated at the clinic, whom for privacy Farber named "Jimmy" appeared on the radio show "Truth or Consequences." As a result of the show, the foundation received \$250,000 in donations, which helped to create the construction of the Jimmy Fund building in Boston, which opened in 1952 and contained state-of-the-art laboratories and equipment. This organization would later become the Sidney Farber Cancer Institute.

At the Institute, Farber was well-liked and started many practices which are common in medical care nowadays. He commanded regular, daily contact between patients and social workers at the clinic, a practice unheard of in his day. Farber also came up with the idea of "total care," where all services for the patient and family, including counseling, nutrition, etc., were provided in one place.

Farber continued his work throughout the 1950s and 60s. In 1955, he discovered that the antibiotic actinomycin D and radiation

therapy could produce remission in Wilms' tumor, a pediatric cancer in the kidneys. During this time period, Farber moved his work onto the national stage. He began appearing regularly before congress making appeals for more funds towards cancer research. As a result of his efforts, funding towards cancer research in one decade (1957-1967) went from \$ 48 million to \$ 176 million. He also worked to parlay his research and clinic with children into adult cancer research, and after being unsuccessful establishing one at Brigham and Women's Hospital, Farber opened an adult version of his inpatient clinic at Children's in his own Institution.

Farber continued his work until his death in 1973 of a heart attack, pushing to find a cure for cancer. After his death, the Sidney Farber Cancer Institute was renamed the Dana-Farber Cancer Institute, the name it holds to this day.

# What is Cancer?

Cancer is a class of diseases characterized by *malignant neoplasia*, which translates approximately to "bad new growth." What this means is that, when cells mutate and begin to grow out of control or when cells fail to die normally, they build up into the "bad new growth," or a neoplasm. These neoplastic build-ups are known as tumors.

Cancer is caused by a series of mutations in genes that control cells' ability to grow and multiply. Some mutations are inherited genetically, some are from environmental factors (smoking, radiation poisoning, etc.). These mutations cause cells to multiply vigorously or lose their ability to die normally.

There are more than 100 different kinds of cancer, as cancer can arise anywhere in your body. There are carcinomas, the most common type of cancer, which originate in tissues that cover a surface or line a cavity of the body. There are sarcomas, which begin in tissues that connect, support, or surround other tissues. Lymphomas are cancers of the lymphatic system, which is the bodily system that cleanses cells. Then, there are Leukemias, or cancers related to the blood. There are also brain cancers and skin cancers (like melanomas).

Cancer is called metastatic if it spreads to other parts of the body through the blood or lymph system, creating secondary neoplasms. If, for example, lung cancer spreads to the liver, the chances of "beating" the cancer become much slimmer, as the cancer has entered either the bloodstream or the lymph nodes and will probably be circulating in your body forever, except in very rare, but very moving miracles.

Cancer attacks one out of every two men and one out of every three women in the United States at some point in their lives. There are almost 1.5 million cases of cancer diagnosed in the U.S. alone every year. 560,000 people in the U.S. die of cancer annually, making it the second leading cause of death (second only to heart disease).

# The Jimmy Fund

## Who is Jimmy? & Founding the Fund

Einar Gustafson was Dr. Sidney Farber's patient in 1948 and it was he who inspired the Jimmy Fund.

As a 12 year old patient of cancer, Gustafson spoke on Ralph Edwards' national radio program, Truths or Consequences, as he met with the Boston Braves, his favorite baseball team, on May 22, 1948.

At the end of the broadcast, donations were requested to buy a TV set for Jimmy to watch baseball, his favorite sport. This request did not fall to deaf ears and soon after the broadcast, donations poured in nationwide. Gustafson, who was given the name "Jimmy" to protect his privacy and the radio broadcast he was on gave birth to today's Jimmy Fund, a foundation that works to raise money for cancer research.

After that broadcast, Gustafson returned home to Maine and in later years even resided in Massachusetts, but many people at Dana Farber assumed he passed away since the rate of survival for children was very low during that time period. Gustafson remained a mystery until 1998, the 50th anniversary of the radio broadcast that started the Jimmy Fund. On this momentous occasion, Gustafson revealed his identity and was featured in various newspapers and magazines from Sports Illustrated to People.

He was named honorary chairman of the Jimmy Fund and became an active member of the charity. Gustafson visited patients, made public service announcements, and attended various fund raising events including the Pan-Massachusetts Challenge and the Boston Marathon Jimmy Fund Walk. He was so committed to Jimmy Fund that

his trailer truck contained the charity's slogan, "Because it takes more than courage to beat cancer."

Although Gustafson, at 65 year old, passed away of a stroke on January 21, 2001, this slogan continues to preserve his memory, providing hope, support, and inspirations to thousands afflicted with cancer and their family and friends.

## The Jimmy Fund Today

Today, the Jimmy Fund has raised over \$400 million since its conception on Ralph Edward's radio program in the 1940s. Every dollar goes toward finding a cure for cancer so that children will not have to suffer in pain and innocent lives will not be lost.

The Jimmy Fund gives hope to those suffering from cancer and continues to fight the fight that Sidney Farber spent his life fighting. The foundation hopes that one day, children will never have to question their mortality because of cancer. With money raised, the nation is a step closer to finding a cure for this horrible disease that has killed so many.

Today, cure rates for children's cancer has increased to 75 percent, due to the money raised by the Jimmy Fund for research and Dr. Sidney Farber's commitment and groundbreaking research. The Jimmy Fund Clinic of the Dana Farber Institute, with its wall painted with vintage Disney characters and with its waiting rooms serving as playrooms, is designed with pediatric cancer patients in mind, providing love, care, and compassion to its young patients.

It is the mission of the Jimmy Fund and that of Dana Farber, that treatment does not only provide medicinal support but emotional support as well. Through countless fundraising events, the Jimmy Fund



continues to thrive.

Since 1980, the Pan Massachusetts Challenge, a bicycle ride across the state, has raised more than \$171 million. Every year, "nearly 4,800 cyclists from 36 U.S. states and six countries will ride up to 192 miles across the Commonwealth in the 28th annual Pan-Massachusetts Challenge (PMC) on Aug. 4 and 5". Another notable fund raiser is the Boston Marathon Jimmy Fund Walk. Participants walk the 26.2 mile, following the route of the Boston Marathon, in honor of those who passed away of cancer and to raise money to continue their fight. Today, the Boston Red Sox continues in the tradition of the Boston Braves, by working with the Jimmy Fund to raise money for the battle for cancer.

Since 1958 when the Boston Braves moved to Milwaukee, the Red Sox took over the partnership with the Jimmy Fund and has become the longest standing charity partnership in any professional sport. The logo of the Jimmy Fund is seen in the Green Monster in Fenway Park, a trademark of baseball history.

Red Sox Players spend time visiting children at the Jimmy Fund Clinic and hold various events such as an 18-hour radio telethon to seek donations. The Red Sox, like Sidney Farber, embodies the hope that one day, a cure for cancer will be found and in the mean time, the team works with the Jimmy Fund to accomplish this mission.

The Jimmy Fund works in conjunction with the Dana Farber Institute to provide funding for cancer research in hopes of continuing Sidney Farber's mission.

# The Dana-Farber Cancer Institute

## The DFCI Mission

The mission of Dana-Farber Cancer Institute is to provide expert, compassionate care to children and adults with cancer while advancing the understanding, diagnosis, treatment, cure, and prevention of cancer and related diseases. As an affiliate of Harvard Medical School and a Comprehensive Cancer Center designated by the National Cancer Institute, the Institute also provides training for new generations of physicians and scientists, designs programs that promote public health particularly among high-risk and underserved populations, and disseminates innovative patient therapies and scientific discoveries to our target community across the United States and throughout the world.

## Vision

Dana-Farber Cancer Institute's ultimate goal is the eradication of cancer, AIDS, and related diseases and the fear that they engender.

## Core Values

The Dana-Farber Cancer Institute's core values are as follows.

### **-Impact-**

Above all else, we make a difference by relieving the burden of disease now and for the future through our research, clinical care, education, outreach and advocacy.

### **-Excellence-**

We pursue excellence relentlessly and with integrity in all that we do, adhering always to the highest standards of conduct.

### **-Compassion and respect-**

...for those in our care and for one another.

## **-Discovery-**

We foster the spirit of inquiry, promoting collaboration and innovation across traditional boundaries while celebrating individual creativity.

### The DFCI Today

What Sidney Farber originally created some sixty years ago has become an internationally renowned organization for its excellence in cancer research, as well as clinical trials.

A major affiliate of Harvard Medical School, the institute is located in the Longwood Medical area in Boston Massachusetts. It employs thousands of scientists, researchers, and doctors, and receives over 180,000 pediatric patients each year. In addition to its cancer research and clinical trials, Dana-Farber is also a federally funded center for AIDS research, and is home to leading research in the field.

In cooperation with the Brigham and Women's hospital, Dana-Farber provides care to adult cancer patients in Boston. Dana-Farber provides outpatient services, while inpatient services are taken care of at Brigham and Women's. Treatment is provided in twelve specific areas, each focused on helping patients fight a certain type of cancer. This layout aids patients in their families in getting specialized care all in one place. Dana-Farber and Brigham and Women's Hospital also ally with Massachusetts General Hospital, and the three together create the Dana-Farber Partners Cancer Care group. This group provides the best technology and service of two of the best hospitals, and aids in devising new cancer treatments through numerous clinical trials. Partnered with Children's Hospital in Boston, the Dana-Farber Cancer Institute provides care to children with many different types of cancer, offering comprehensive and specialized care, something Mr. Farber

emphasized.

Today, Dana-Farber provides advanced training in cancer research and treatment internationally. It also remains a strong force in the local community, providing cancer awareness programs throughout New England. The organization is funded by the National Cancer Institute, the National Institute of Allergy and Infectious Diseases, as well as by numerous individuals and other foundations, who contribute to the Jimmy Fund and aid in continuing the amazing work at Dana-Farber.

### In Their Own Words

Who can describe the Dana-Farber Cancer Institute better than themselves? Here's what they have to say about who they are:

#### Dana-Farber Cancer Institute ...

"Dedicated to discovery ... committed to care" is the mission of Dana-Farber Cancer Institute (DFCI), described as "one of the world's premier cancer centers" by the National Cancer Institute. Founded in 1947 by Sidney Farber, MD, DFCI is renowned for its unique blend of basic and clinical research and for using its discoveries to improve the treatment of adults and children with cancer. It is a founding member of the Dana-Farber/Harvard Cancer Center - one of 39 nationally designated Comprehensive Cancer Centers. A teaching affiliate of Harvard Medical School, Dana-Farber is also one of 20 federal Centers for AIDS Research in the United States, and is consistently ranked one of the top four cancer centers in the country by U.S. News & World Report. It has also earned "Magnet" status for excellence in nursing.

Dana-Farber has a longstanding alliance with Children's Hospital Boston to care for children with cancer. In 1996, DFCI and the two

founding members of the Partners HealthCare System - Brigham and Women's Hospital and Massachusetts General Hospital - formed Dana-Farber/Partners CancerCare, a collaborative program in adult oncology. Dana-Farber's adult oncology services are provided through the Dana-Farber/ Brigham and Women's Cancer Center. By bringing together the strengths of world-class institutions, these partnerships provide an exceptional level of care for cancer patients and their families.

### ... and The Jimmy Fund

The Jimmy Fund supports the fight against cancer at Dana-Farber, helping to raise both funds and the chances of survival for children and adults around the world. Named to protect the anonymity of one of Dr. Sidney Farber's young patients, the Jimmy Fund was established in 1948 by the Variety Club of New England in conjunction with the Boston Braves baseball team. Later adopted as the official cause of the Boston Red Sox, the Massachusetts Chiefs of Police Association, and the annual Pan-Massachusetts Challenge bike-a-thon, the Jimmy Fund is widely regarded as "New England's favorite charity." Individual and corporate gifts, many of them collected through hundreds of annual Jimmy Fund events, have helped the organization generate millions of dollars for cancer research and care at Dana-Farber over the decades.

## In Memoriam

We dedicate this project to everyone suffering with the ailment of cancer, and to those who have gone before us because of cancer.

In a special way, we would like to memorialize Susan Filipi, a Boston Latin School History master, who passed away on October 19th, 2006 due to melanoma that metastasized to her lungs and throughout her body.



May she find eternal peace, and may her spirit live on in the lives of her family, friends, and students.