The Pediatric Cancer Genome Project is launched as an unprecedented effort by St. Jude and Washington University in St. Louis to identify the genomic changes that give rise to some of the world’s toughest childhood cancers.

IN 2010

the Pediatric Cancer Genome Project is launched as an unprecedented effort by St. Jude and Washington University in St. Louis to identify the genomic changes that give rise to some of the world’s toughest childhood cancers.

IN 2015

a landmark study from the Pediatric Cancer Genome Project is published in the New England Journal of Medicine.

52.5%

Brain Tumors

21.9%

Other Cancers

25.6%

Leukemia

TYPES OF CANCER

Leukemia

Brain Tumors

35.7%

Other Cancers

IN 2015

St. Jude launched Genomes for Kids, a clinical research study looking at using genomic sequencing to understand the similarities and differences between tumor cells and healthy cells in children.

595 69 456

Whole Genome Sequencing

Whole Exome Sequencing

Finding:

> 8.5% of patients carry a mutation in a gene that likely increases their cancer risk

Out of the 58 patients with a predisposing mutation and available family history

40% had a positive family history of cancer

60% had no recorded family history of cancer

Genetic predisposition:

An increased chance to develop a certain condition because a change (mutation) is present in one or more genes within the body’s cells.

CONCLUSION

“Family history should not be used as the sole indication to guide the provision of genetic testing.”

Next Steps

IN 2015

St. Jude launched Genomes for Kids, a clinical research study looking at using genomic sequencing to understand the similarities and differences between tumor cells and healthy cells in children.

Researchers hope to learn:

Sales my start making tumor response to treatment better ways to share

best ways to share genomic sequencing results

with families

The clinic team includes:

DOCTORS

GENETIC COUNSELORS

NURSES

SOCIAL WORKERS

PSYCHOLOGISTS

IN 2015

the St. Jude Hereditary Cancer Predisposition Clinic continues to expand to help evaluate & care for children, and their families, who are at increased risk of cancer.

The paper completes the most comprehensive analysis yet of the role genes associated with cancer predisposition play in childhood cancer.

Sources: