

The Center for Data Driven Discovery in Biomedicine (D3b)

In January, 2016, Vice President Joe Biden chose the city of Philadelphia as the place from which to formally launch of the White House's Cancer Moonshot initiative. It was during the vice president's visit that Children's Hospital of Philadelphia announced a groundbreaking initiative of its own – the creation of the Center for Data Driven Discovery in Biomedicine. Established with the goal to revolutionize the ways physician-scientists research and treat cancer and other rare diseases, the center is facilitating precision medicine by creating new data sharing platforms and making them available to researchers globally.

Children's Hospital of Philadelphia is relying on generous donors like you to help us remain at the vanguard of the fight to cure brain cancer and other rare diseases in children.

Overview

The Center for Data Driven Discovery in Biomedicine (D3b) is an example of Children's Hospital of Philadelphia's (CHOP) commitment to advancing groundbreaking pediatric research by transforming "data to knowledge and knowledge to action" through new precision medicine initiatives. The center is co-led by Adam Resnick, Ph.D., an expert in brain tumors and Phillip "Jay" Storm, M.D., division chief of Neurosurgery.

D3b was officially opened in conjunction with Vice President Biden's visit to the Abramson Cancer Center earlier this year as part of his launch of the Cancer Moonshot initiative. However, the seeds of D3b were sewn nearly 10 years ago through CHOP's work with pediatric brain tumors. More children die from brain cancers than any other cancer, yet to date, the National Institutes of Health has not tackled the development of data-driven precision medicine approaches for children.



Leaders from Children's Hospital of Philadelphia meet with Vice President Biden inside the White House to discuss the Hospital's role in the Cancer Moonshot.

Building on the Division of Neurosurgery's decade of investment in a data-driven collaborative research for brain tumors, D3b's platform is expanding these efforts to support novel research and clinical trial initiatives across the Hospital and the country.

D3b uses the infrastructure of the CHOP Research Institute to pioneer a new landscape for discovery by breaking down institutional silos and maximizing opportunities on behalf of children. At the same time, the center will continue to utilize CHOP's resources as one of

the nation's best children's hospitals to support its role as a national epicenter for pediatric genomic research. D3b will expand its coordination and leadership of consortia-based initiatives by partnering with other renowned institutions with a one common goal in mind – providing precision medicine that leads to new treatments and cures.

CBTTC

The efforts of D3b mirror the proven approaches and technologies developed by the CHOP-led Children's Brain Tumor Tissue Consortium (CBTTC), a collaborative multi-institutional research program created in 2011 that is dedicated to the study of childhood brain tumors. The ultimate goal of the CBTTC is to improve outcomes for children with brain tumors by supporting research on new prognostic biomarkers and therapies. Through the CBTTC, CHOP has increased worldwide collaboration through the integration of advancements in "big data" informatics, the use of CHOP's state-of-the-art biorepository, and partnerships with 13 of the world's leading children's hospitals. In addition to CHOP, CBTTC hospitals include: Ann & Robert Lurie Children's Hospital of Chicago; The Children's Hospital of Pittsburgh of UPMC; Meyer Children's

Hospital, Italy; Rutgers Robert Wood Johnson Medical School; Seattle Children's Hospital; Stanford University/Lucille Packard Children's Hospital; University of California San Francisco Benioff Children's Hospital; Children's National Medical Center, Washington D.C.; Weill Cornell Medicine Pediatric Brain and Spine Center; Hackensack University Medical Center; Children's Hospital of Orange County; and University of California, Santa Cruz – Treehouse Child Cancer Initiative.

The Future

Here at CHOP, D3b also seeks to expand its cross-cutting discovery efforts to include research initiatives in other areas such as autism, neurology and neurosurgery, among other disciplines. Ultimately, it is D3b's vision of empowered collaboration that sets it apart from other research organizations. In a system that indirectly encourages hospitals to keep research private in order to publish novel discoveries and secure grant funding, CHOP has made the bold decision to create a new "open science" ecosystem to share its data with the world in the realization that more lives will be saved if we all work together.

Adam Resnick, PhD



- Co-Director, Center for Data Driven Discovery in Biomedicine
- Scientific Director, Children's Brain Tumor Tissue Consortium
- Scientific Director, Pacific Pediatric Neuro-oncology Consortium

Jay Storm, MD



- Co-Director, Center for Data Driven Discovery in Biomedicine
- Chief, Division of Neurosurgery

Make a Gift

To support the Center for Data Driven Discovery in Biomedicine or other brain tumor research-related initiatives at CHOP, please contact Director of Development Josh Walker at 267-426-6372 or walkerjd@email.chop.edu.