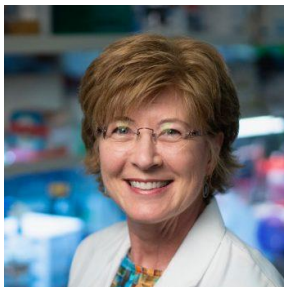
The Gallery of Art in Giving

Every art purchase funds innovative childhood cancer research

Identifying signals from normal brain cells that promote growth of diffuse intrinsic pontine glioma



Suzanne Baker, PhD
St Jude Children's Research Hospital

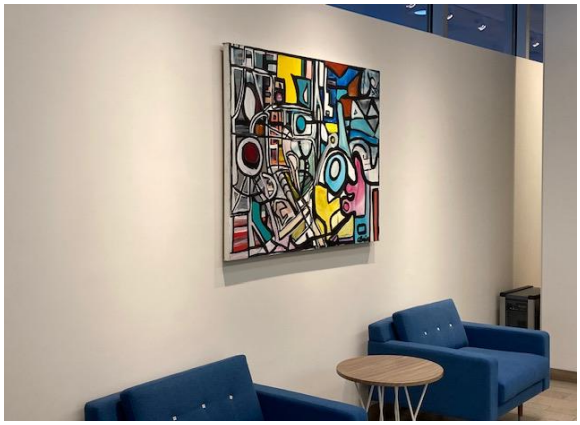
We are grateful to Art in Giving and the Rachel Molly Markoff Foundation for supporting our project and making the experiments listed below possible.

Diffuse intrinsic pontine glioma (DIPG) is a devastating brainstem tumor that occurs predominantly in children. As it grows, DIPG infiltrates normal tissue, coming into contact with different cell types in the normal brain including neurons, also called nerve cells. Neurons transmit information in the brain by receiving and sending chemical and electrical signals to other neurons. DIPG growth can disrupt the normal functions of neurons, but there is also a growing body of evidence that DIPG cells may also be able to receive signals from neurons and to send and receive signals to other DIPG cells. This communication between DIPG cells and between DIPG and normal cells in the brain tumor environment can support and promote tumor growth. Identifying and blocking key signals may create an opportunity to slow or stop DIPG growth.

Cont'd on page 3

BioMed Realty's new lobby at 210 Broadway in Cambridge

"In adding the beautiful Art in Giving artwork throughout our property at 210 Broadway, BioMed Realty is grateful for the opportunity to support the organization's mission of advancing pediatric cancer research. The partnership between BioMed and Art in Giving positively impacts so many lives, both directly and indirectly: from the employees and tenants in BioMed's buildings who get to enjoy the art on a daily basis, to the children with cancer who benefit from industry-leading research."
Gus Leddy-Senior Property Manager



Featured Artists

Christopher Gill

Green World- 45” x 52”

Planetary Atmosphere 63” x 37”

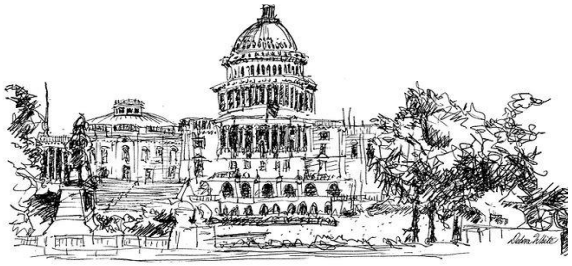
"I am an improvisational abstract painter, who experiments with color and form. I use techniques derived from action and drip painting, as well as from my experience as a musician. I consider myself a naturalist, who tries to get out of the way of nature, in pursuit of the universal and metaphysical."

To see more of Chris’ work please visit
https://www.chrisgillartist.com/

Debora White

"I am an architect who loves to learn about the built environment by drawing iconic buildings. I have spent countless hours studying and drawing great architecture in person around the world. Drawing inspires and teaches me how to create beautiful, functional places for my clients."

Above: **Pantheon** Below: **U.S Capital**



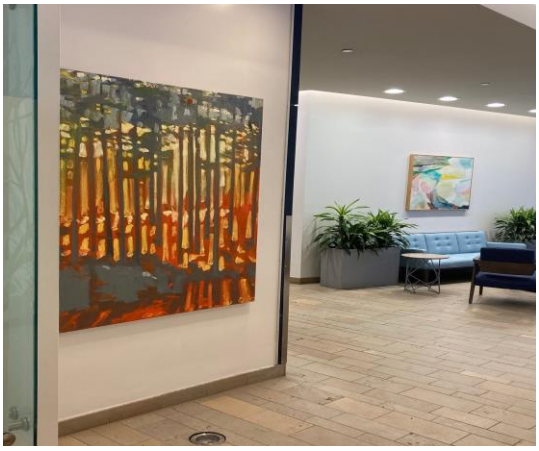
To see more of Debora's work please visit
https://www.deborawhitearchitect.com/

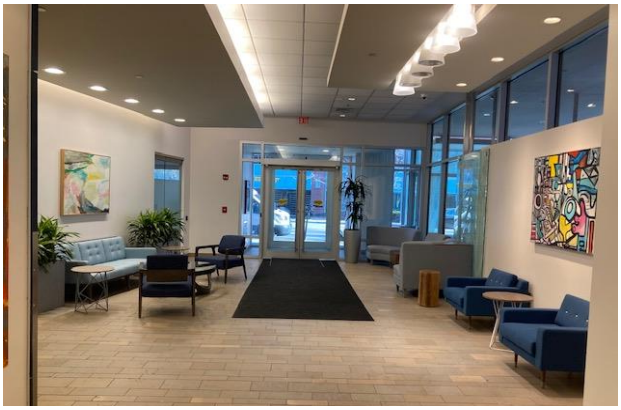
Cont'd from page 1- St. Jude's Children Research Hospital- Dr. Suzanne Baker

To help identify targets that drive DIPG growth, we collaborated with Dr. Jiyang Yu, a computational biologist who found therapeutic targets for other types of cancer by identifying master regulators of networks of genes that work together. When Dr. Yu studied potential gene networks that are turned on or turned off in DIPG, he identified a significant number of candidate master regulators that normally function to receive signals from neurons and from other normal cell types in the brain. Our goal is to test these candidates to pinpoint which ones are important master regulators in DIPG. Deleting or blocking a master regulator should block growth-promoting signals from normal brain cells and slow or stop growth of the tumor.

With the support from a generous grant from Art in Giving and the Rachel Molly Markoff Foundation, we have been working to test candidate regulators that mediate essential growth promoting signals between neurons and other cells in the brain tumor environment and DIPG cells. Our current experiments are testing the effects of individually inactivating more than 400 candidate regulators in DIPG cells that were isolated from patient tumors and grown under conditions that model the complex interactions between the tumor and cells in the brain tumor environment. From these experiments, we will identify the highest priority regulators for detailed studies to illuminate how signals from normal cells drive DIPG growth and whether these can be effective therapeutic targets.

Additional photos of BioMed's new lobby at 210 Broadway Street, Cambridge





Thank you for reading this newsletter

If you have an idea, a lead or interested in getting more involved, please email or call us at 617 877 4230