The Gallery of Art in Giving

Every art purchase funds innovative childhood cancer research

Newsletter Winter 2024- Wishing you all a very happy and healthy and peaceful New Year!

Alexandria's new lobby at 140 First Street-Cambridge

Alexandria's team, on left, and the Art in Giving team, on right, proudly posing in front of Denise Driscoll's commission paintings.

"*Seek*, *Hover*, and ***Grasp*** are inspired by points in the creative process that connect life science and art. I am grateful to Art in Giving for sharing my work with Alexandria Real Estate, and to ARE for this commission. Currently in treatment for cancer myself, knowing that my work also supports pediatric cancer research is energizing." Artist **Denise Driscoll**, 2nd from the right.

Featured Artist from Paris Bernard Carver

"l'art se fait fie de toutes ambitions spéculatives, des guerres, et des politiques."

Bernard Carver.

Translation in English : "Luckily, art ignores all speculative ambitions, wars, and politics."

Two Grant Recipients in 2024 of The Rachel Molly Markoff Foundation

Dr. Suzanne J. Baker

St. Jude Children's Research Hospital

Gap Junction-Mediated Cell-Cell Communications as Drivers of DIPG

Diffuse Intrinsic Pontine Glioma (DIPG) is an extremely invasive brainstem tumor. Recent research has revealed that DIPG tumor cells can be interconnected over significant distances through thin projections connecting the cells. These structures provide a conduit to relay signals throughout the tumor, such as cues that drive tumor growth or contribute to the tumor resistance to therapy. DIPG tumor cells may also receive key signals from the surrounding cells in the normal brain. We will develop model systems to study the long-distance network interactions among DIPG cells and between DIPG cells and normal cells. We will also introduce mutations into the model system that will disrupt the specialized structures that form connections between DIPG tumor cells. We will use these models to investigate the mechanisms through which tumor cell communication with other tumor cells and with normal brain cells influence tumor growth and invasion.

Dr. James Chen

Stanford University School of Medicine

Tumors are composed of multiple cell types with distinct proliferation rates and differentiation states. This cellular complexity poses a significant challenge in the development of cancer therapies, as most chemotherapies preferentially kill highly proliferative cells. Such treatments are often ineffective against slowly dividing stem cell-like populations, which can give rise to cancer recurrence, drug resistance, and metastasis.

My lab has been exploring ways to eliminate cancer stem cells by exploiting their unique metabolic pathways. One hallmark of normal adult and cancer stem cells is their high expression of enzymes called aldehyde dehydrogenases (ALDHs), and individual ALDH isoforms have been associated with specific cancers. For example, ALDH1B1 is normally expressed in adult intestinal and pancreatic stem/progenitor cells, and it promotes tumor formation and progression in these organs. My research group discovered the first chemical inhibitors of ALDH1B1, and we are using these compounds to study ALDH1B1-dependent tumorigenesis and to pursue the development of ALDH1B1-targeting drugs.

The Rachel Molly Markoff Foundation first sponsored my research program in 2006 when I was a fledging assistant professor. Their funds helped launch my efforts to discover Hedgehog pathway modulators and evaluate their efficacy against medulloblastoma. Gift funds from Art in Giving subsequently enabled my lab to upgrade its microscopy instrumentation in 2014, and in 2017 the foundation supported our studies of ARHGAP36, an oncogene that is highly expressed in certain types of medulloblastoma. My graduate students, postdoctoral scholars, research staff, and I are grateful for Art in Giving's continued support as we pursue this new research direction.

Highlights

A Generous grant from The Rhode Island Foundation to hire a Business Development Consultant

A very generous anonymous donor has granted Art in Giving/The Rachel Molly Markoff a six-figure gift to hire a part time Business Development consultant. The ideal candidate will have access to corporate contacts who are responsible for, or influential in, the acquisition of art for office space. We welcome your support in finding a candidate. For further information, please view this link.

The Rachel Molly Markoff Foundation/Art in Giving is grateful to its clients and to all its artists for their partnership and support.

Next newsletter:

- New art at BioMed's 450 Kendall Street
- New art at BioMed's lobby at 210 Broadway Street!
- Art in Giving will announce a new real estate development client!

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