

Seattle Cancer Care Alliance

Fred Hutch · Seattle Children's · UW Medicine



Swim Across America Seattle 2015 Impact Report



Seattle Cancer Care Alliance (SCCA) is built on a culture of collaboration, where researchers and clinicians from our founding organizations, Fred Hutchinson Cancer Research Center, UW Medicine, and Seattle Children's work together to turn cancer patients into cancer survivors. Funds from the 2014 swims will continue to support the Pancreas Cancer Specialty Clinic and the newly named Swim Across America Cellular Therapy Lab (SAA-CTL).

Pancreas Cancer Specialty Clinic

While pancreas cancer is the 12th ranking cancer in terms of incidence rates, it is the 3rd leading cause of cancer-related deaths in the United States. Unfortunately, it is one of the few cancers where survival rates have not increased substantially over the last 40 years. The 1-year survival rate is 25% and the 5-year survival rate is a miserable 6%. Treatment is often hampered by both chemo- and radiotherapy resistance and no proven screening methods exist for early detection or risk reduction. Funding from SAAS is helping our researchers to better understand pancreas cancer on multiple levels through collection and analysis of pancreas tumors, as well as funding research initiated pilot studies. SAAS is fuelling the engine of research in an area of vital need, helping translate bench science to bedside medicine.

In order to rigorously assess novel detection and treatment strategies that emerge from the laboratory, they must be corroborated with findings in humans. The collection of human specimens is a complex and challenging multi-step process. At SCCA, Dr. Sunil Hingorani has developed the Center

for Accelerated Translation in Pancreas Cancer (CATPAC), establishing a biospecimen repository available to all researchers. With continued support of SAAS, the CATPAC can work the Pancreas Cancer Speciality Clinic and expand its collection of tissue from pancreas cancers removed during surgery.

With multiple revolutions in the understanding of tumors and treatment, SAAS is helping provide insight into disease development, response to treatment, and overall outcomes and may inform future molecularly-driven therapeutic trials. The STTR Molecular Diagnostics Repository SAAS is supporting the evaluation of the genomic, metabolomic, proteomic and immunological profiles of pancreas cancer, helping to create and share information and access samples more quickly and affordably.

Researchers often have a very difficult time obtaining traditional grant support to explore novel ideas until some initial data is collected to support the proposal. In 2015, SAAS will fund 2-3 researchers' pilot studies to advance the science, hopefully paving the way for future full scale proposals. We are grateful to the SAAS for its continued support of the Pancreas Program. You are helping to advance the field of research so that we can turn the tide on pancreas cancer and give our patients the outcomes they desire.

Swim Across America Cellular Therapy Lab

Harnessing the power of the immune system to fight disease (immunotherapy) is not a new idea. Today,

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In cancer research, there are a number of modalities and targets for immunotherapy, but cell-based therapies, using selected cell populations that can be genetically modified to boost their cancer-fighting ability, are one of the most promising. While these therapeutics have been in existence for decades, particularly here where bone marrow transplantation was invented by Nobel prize winner, E. Donnell Thomas, it's only been in the past 4-5 years that cell therapy has received an unprecedented amount of attention as one of the most powerful means to treat cancer. In large part this is due to the innovative methods we are using now to select subpopulations of immune cells for use in cutting-edge clinical trials. The Swim Across America Cellular Therapy Laboratory is responsible for all therapeutic cell processing at SCCA.

Over the past six years, SAAS funds have supported cell-based immunotherapy trials aimed at increasing graft versus cancer effect and reducing Graft Versus Host Disease. Those studies and follow-on protocols to refine the technology and incorporate more donor options are continuing. In addition, SAAS funds have prepared us to process cells for the Chimeric Antigen T Cell Receptor (CAR T) clinical trials. The first CAR T protocol for SCCA patients is producing extraordinary results in which cancer patients that had been unresponsive to or relapsed from other

therapies are experiencing complete remissions. These results, along with similar studies from other centers, have been acknowledged in an astounding amount of top tier scientific literature, conference presentations and media of all sorts. Without question, cancer immunotherapy has become the hottest topic in science, not just within cancer research or medical research. Of all the modalities for immunotherapy, cell-based is getting the most attention. So SAA-CTL is at the forefront of this revolution in cancer treatment and SAAS funding is helping to keep us there, bringing these new treatments to patients.

During 2015, we expect additional CAR T trials to start and SAAS funding will allow us to train staff and test processes to build the much needed capacity to support this rapidly expanding work. It's also likely that CAR T's will be tested for efficacy in solid tumors and SAA-CTL would likely participate. In addition, there is a new instrument that may allow for more efficient cell processing to treat more patients on these trials and we will likely utilize SAAS funding to do critical testing and possibly purchase this instrument if it proves to be worthy. We sincerely thank SAAS for helping us to support research excellence and bring the best treatments possible to patients.

On behalf of the researchers, physicians, and patients who are benefiting from SAAS fundraising efforts, we thank you, the swimmers, donors, and volunteers for your support. Your support is helping us to fuel innovation in cancer research.

Seattle Cancer Care Alliance is a treatment center that unites doctors from Fred Hutchinson Cancer Research Center, UW Medicine, and Seattle Children's. Our goal, every day, is to turn cancer patients into cancer survivors.