

December 1, 2022

Dear Friends of Merkel cell carcinoma research,

I hope that you are having a joyful holiday season! As we enter this season of gratitude and reflection, I would like to thank you for your partnership. Your support is vital to catalyzing discoveries that will continue to impact patients and their families, today and for years to come. I am proud to share this overview of the progress that your support has made possible.

A New Blood Test: Circulating Tumor DNA

Our lab developed the “AMERK” antibody test over a decade ago to test for MCC recurrence. It is now used by patients across the US and world if they produce these antibodies. Over the past year, we have successfully begun our circulating tumor DNA (ctDNA) surveillance program led by our Seattle team and partners at Stanford Medicine. Studied at six medical institutions around the country, this personalized blood test works for both virus-positive and virus-negative patients to monitor their response to treatment and detect recurrences early. The test results correlate with tumor size, which enables clinicians to gauge disease burden more accurately and respond promptly if MCC recurs. We anticipate this will become a new ‘standard of care’ for MCC, after our first major publication on this test that is anticipated in mid-2023.

DNA Damage Response Inhibitor

Over the past five years, we have been highly encouraged by the success of immunotherapies called immune checkpoint inhibitors (ICIs) for patients with advanced MCC. Approximately 50% of MCC patients treated with an ICI enjoy meaningful responses to treatment that last for years. However, new therapies are needed to treat MCC in patients who do not have durable benefit from ICI’s. MCC tumor growth is dependent upon a key protein called ATR that ensures all the DNA in a cell has been fully copied before the cell divides; failure of which results in cell death. Intriguingly, Nghiem Lab studies have shown that drugs inhibiting ATR not only lead to MCC cell death, but they also enhance MCC tumor cell visibility to the immune system, potentially improving immunotherapy responses. Data from these preclinical lab studies sparked the recent approval of a multi-center National Cancer Institute (NCI)-sponsored phase II clinical trial to test an ATR inhibitor as a treatment for MCC that does not respond to immunotherapy. This trial is expected to open in 2023.

A “Therapeutic Vaccine” to Prevent MCC Recurrence

After initial surgery and/or radiation removes all evident cancer, we currently have no treatments to lower the chance of MCC recurrence, even though we know the risk of recurrence is more than 20% for virtually all MCC patients. Excitingly, we launched a clinical trial in June 2022 for a therapeutic vaccine to prevent MCC recurrence. This vaccine uses a mutated form of the Merkel cell polyomavirus protein that we believe will help the immune system recognize and destroy remaining cancer cells in the body.

Learning Why Some Patients Respond to Immune Therapy

One of our goals is to advance our understanding of why some patients respond to immune therapies while others do not. This year, we were able to purchase a device that uses “microfluidics” to help us divide a complex tumor into individual cells and study each of them independently. This approach dramatically improves our ability to understand what happens inside a tumor by focusing on rare but relevant cells and studying what signals are active in individual cells. It is impossible to carry out such precise studies when the tumor is studied as a whole.

Our First Hybrid Merkel CELLebration

The Nghiem Lab held its annual “Merkel CELLebration and Dinner” on Monday, Sept. 12, at the UW Medicine Research Campus in Seattle’s South Lake Union neighborhood. After gathering virtually for the past two years, we were delighted to offer a hybrid event to give participants the option to attend in-person or online. Around 120 in-person and 75 virtual attendees joined us to learn about advances in research and clinical developments, listen to inspirational patient stories, tour the lab and have discussions of topics presented on posters by lab members. If you missed the event, you can watch a recording at merkelcell.org/news-and-publications/2022/merkel-cellebration/ or by scanning the QR code on the right.



Personal Updates

As COVID restrictions loosen, it has been wonderful to spend time with people again! Our family has carefully resumed travel and we were glad to be able to go on our annual Alaska cruise. Alex graduated from Harvey Mudd College and has his first job working for a language education company, Duolingo, in Pittsburgh. Max is applying for colleges and his high school team was elated to complete a 20 win-0 loss season as Washington State champions in ultimate frisbee. We also take the opportunity to play music whenever we’re together.

The UW Division of Dermatology continues to work toward becoming an independent department in 2023. Over the past year, faculty and staff have worked diligently to prepare for this change and ensure a smooth transition. As one of a small number of dermatology “divisions” in the US, becoming a department will allow for more independence over our finances and help attract the best faculty and trainees.

Support Our Research and Education

On April 1, Fred Hutchinson Cancer Research Center and Seattle Cancer Care Alliance (SCCA) merged to become Fred Hutchinson Cancer Center. Fred Hutchinson Cancer Center is a nonprofit organization that serves as UW Medicine’s cancer program. I now see patients at Fred Hutch and retain my role as the Division Head of Dermatology and Professor of Medicine at UW Medicine. The biggest change for the Merkel cell program is that my lab will now fundraise through Fred Hutch. All gifts will continue to support MCC research. If you are interested in supporting MCC research, please go to <https://merkelcell.org/join-the-fight>. If you have any questions, please contact Christine Chan, Director of Philanthropic Gifts at cchan@fredhutch.org.

Thank you for setting the stage for our exceptional researchers to truly change the future for people with MCC!

With warm wishes and gratitude,



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