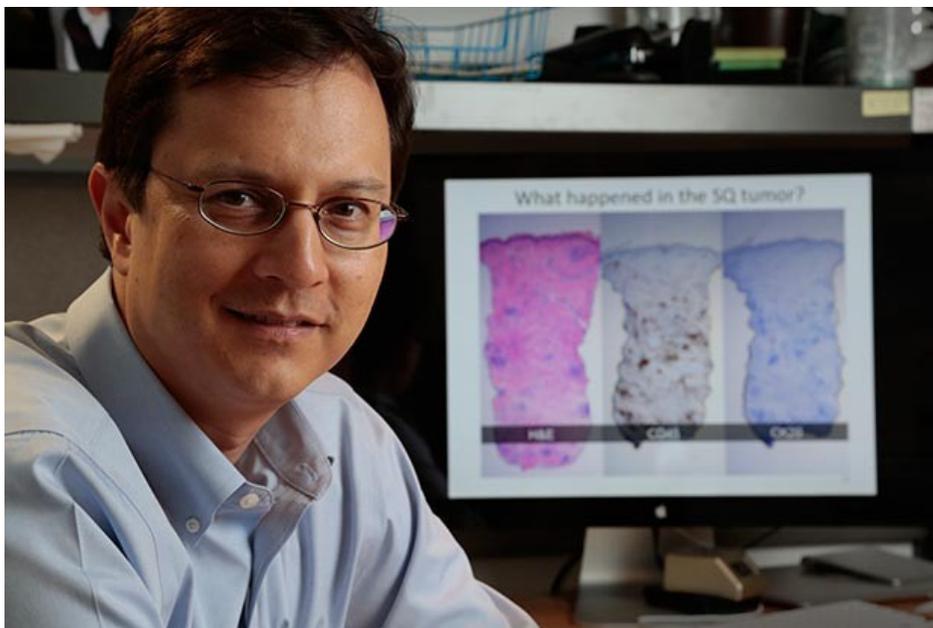


HUTCH NEWS

\$12M NIH grant to study rare, aggressive skin cancer

Fred Hutch, UW researchers hope to improve immunotherapies for people with Merkel cell carcinoma

April 16, 2019 | By Jake Siegel / Fred Hutch News Service



Dr. Paul Nghiem, a skin cancer researcher at UW and Fred Hutch, is the principal investigator of the grant.

Photo by Robert Hood / Fred Hutch News Service

A multidisciplinary team from University of Washington and Fred Hutchinson Cancer Research Center has received a five-year, \$12 million grant to study Merkel cell carcinoma, a deadly form of skin cancer. **Dr. Paul Nghiem**, a skin cancer researcher at UW and Fred Hutch, is the principal investigator of the grant.

Merkel cell carcinoma, or MCC, is much rarer than melanoma, but patients are three times more likely to die from it. And the number of cases in the United States is growing rapidly.



The Seattle-based team has already collaborated on MCC research for more than a decade and made major contributions to the field. They led a **pivotal clinical trial of an immunotherapy drug** that transformed treatment for many people with the cancer.

MCC is a perfect candidate to test immunotherapies, and the new grant will help advance that work, Nghiem said.

“Our Seattle-based team is truly grateful to have secured this grant that brings together scientists with diverse backgrounds to focus on Merkel cell carcinoma,” Nghiem said. “Because this virus-driven cancer is normally so visible to immune system, MCC tumors had to develop potent approaches to evade immunity. We have begun to decipher those tricks, and that should be helpful in treating more common cancers.”

The National Institutes of Health program project grant, known as a P01 grant, will fund three research projects:

Immune responses to cancer-causing virus

Led by Drs. **David Koelle** of UW and **Denise Galloway** of Fred Hutch, this project will study how the immune system responds to a virus that can cause MCC. The researchers will focus on how certain immune cells respond to tumors. Better knowledge of this immunobiology could help predict patient outcomes, which in turn could improve clinical decision-making. Galloway holds the Paul Stephanus Memorial Endowed Chair at the Hutch.

T-cell therapy for MCC

Led by Drs. **Phil Greenberg** and **Aude Chapuis** of Fred Hutch, this project will advance work involving engineered T-cell receptors that enable immune cells to home in on MCC. TCRs are molecules in immune cells called T cells that are trained to recognize telltale markers, called antigens, that flag other cells as foreign or diseased. On this project, scientists will design new TCRs, genetically program them into patients' T cells on a clinical trial and identify factors associated with their success or failure.

Why do checkpoint inhibitors fail in MCC?

Led by Drs. Nghiem and **Shailender Bhatia** of the Hutch, this project aims to understand the cellular and molecular mechanisms associated with the success or failure of checkpoint inhibitors. These immunotherapy drugs work by taking the brakes off of a patient's immune system, allowing the immune system to mount an attack on the cancer. Although checkpoint inhibitors work more often in MCC than any other solid tumor, they don't work for all patients. By comparing pre- and post-treatment samples of a patient's tumor, the researchers hope to learn how tumor cell biology and immune system biology affect how well these drugs work for patients to improve their efficacy.

Jake Siegel, a staff writer at Fred Hutchinson Cancer Research Center, has covered health topics at UW Medicine and technology at Microsoft. He has an M.A. from the Missouri School of Journalism. Reach him at jsiegel@fredhutch.org.

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TAGS: Aude Chapuis, Clinical Research, David Koelle, Denise Galloway, Human Biology, immunotherapy, merkel cell carcinoma, Paul Nghiem, Philip D Greenberg, Shailender Bhatia, TCR, Transplant and Immunotherapy

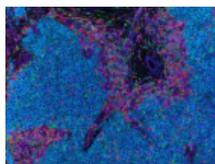
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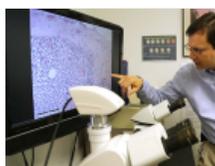
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