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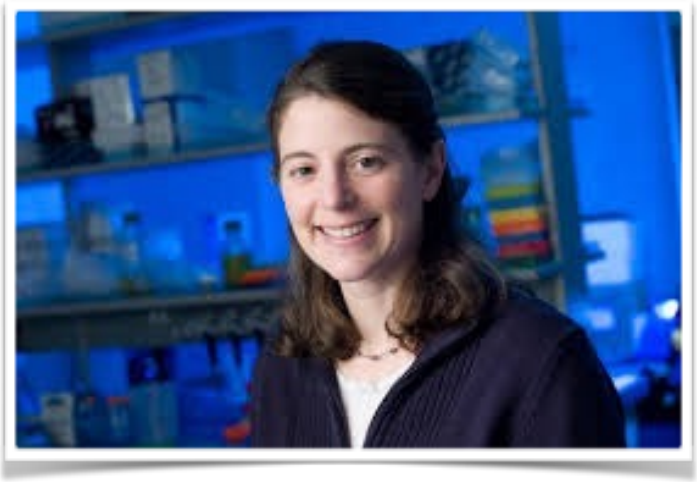
THE UNIVERSITY OF BRITISH COLUMBIA

Department of Cellular and Physiological Sciences

Heterotrimeric G Protein Mutations in Melanoma



12:30 pm,Thursday
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LSC 3

By

Dr. Cathy Van Raamsdonk

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Dr. Catherine Van Raamsdonk is an Associate Professor at UBC in the department of Medical Genetics. As a postdoctoral fellow at Stanford University, Dr. Van Raamsdonk identified two heterotrimeric G protein alpha subunits, Gnaq and Gna11, as important regulators of skin pigmentation and melanocyte development in mice. She went on to discover that somatic mutations in two key residues of human GNAQ and GNA11 underlie 90% of uveal melanoma, the most common type of ocular cancer. Somatic mutations in GNAQ also cause Sturge-Weber syndrome, a disorder characterized by an over-abundance of capillaries near the surface of the skin. The Van Raamsdonk lab published the first genetically engineered mouse model of uveal melanoma in 2015 and is currently interested in whether events during melanocyte development permit GNAQ to act as an oncogene in some contexts, but not others.