

Faculty Spotlight:

Justin Ko, MD, MBA



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Clinical Associate Professor of Dermatology

Summary of Work

Prevention and early detection are critical when it comes to fighting cancer.

Early warning signs of cancer can be overlooked, allowing disease to grow and take hold. Stanford dermatologists are passionate about educating people about the benefits of sun protection before it is too late.

“There was a fantastic, randomized control study that showed that if you use sunscreen on a daily basis, that can reduce the risk of melanoma by 50 percent. That is a remarkable way to easily decrease the risk of developing that form of skin cancer, which is the more deadly form of skin cancer,” said Dr. Justin Ko..

Dr. Ko takes seriously the work of cancer prevention and early detection. As the chief of medical dermatology at Stanford, Dr. Ko spearheads efforts around population screening and education, for example in a series of free skin cancer screenings for employees of participating companies. “There’s a great value to early detection of skin cancers, especially melanoma. We know that the longer a melanoma has been on the skin, the deeper it’s likely to go and the greater chance it has of spreading to other organs.”

And he wants everyone to know how to catch those cancers before they have had a chance to spread. “When you’re checking out your skin, you want to look for moles that look like they don’t belong,” he said, adding that people should search for moles with irregular borders, multiple colors, those larger than a pencil eraser, and most important, those that are changing. Because one-third of melanomas occur on the back, where you do not usually look, it is important to enlist the help of a family member or spouse. Dr. Ko also emphasizes the importance of using sunscreen, adding that you need a full shot-glass amount to adequately cover your skin. If using a spray-on sunscreen, Dr. Ko says people need to

spray continuously and enough to cover their entire body before rubbing it in to ensure that no spots get missed and the sunscreen is effective.

His passion for early cancer detection drives his work and efforts to leverage advances in computer learning and vision science to increase the breadth of populations that can be reached and affected. Tele dermatology and machine learning are platforms field that could also aid in Dr. Ko's efforts to change the current paradigm of care taking place only in the physician's office. With these emerging models of care, Dr. Ko is looking to build the future of skin cancer detection and treatment, without the constrictions of time or place—it can be done almost anywhere, at any time, sometimes within the comfort of a patient's own home. This, he hopes, will be a model to reach patients and populations who are in remote or medically underserved areas.

Inspired by his patients, many of whom fly in from all over the country, Dr. Ko recently completed a study in 70 patients suffering from Alopecia Areata, a condition characterized by complete or total hair loss. His early efforts have yielded some extremely successful results. Dr. Ko and his team now have a potential therapy to give targeted and personalized treatment to patients. Plans are already underway to validate and continue pushing this work forward, with the long-term goal of refining treatments even further and eventually preventing this devastating auto-immune disease. In the words of one patient:

“This treatment has completely changed my life, and not just in physical looks. I am no long hiding. I am not afraid at any time! I am willing to start up face-to-face conversations with people. I love being outdoors now even in the wind. Dr. Ko, I hope you can convey to everyone just how much of an impact this makes in a person's life. For me this is beyond just having my hair back, I truly have my life back.”

Biography

Dr. Ko joined Stanford Medicine in 2012 as the director and clinic chief of Medical Dermatology for Stanford Hospitals and Clinics. He is active in a number of leadership roles within the organization, and is intimately involved in various strategic and operational initiatives at SHC. He graduated *magna cum laude* from Harvard University before earning his medical degree at Tufts University. During medical school, he was a member of the Alpha Omega Alpha honor society. Dr. Ko then performed his residency at the Harvard Combined Dermatology Residency Training Program where he served as chief resident in his final year. He is board certified in dermatology by the American Board of Dermatology.



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