MedStaff Update

MEDSTAFF SPOTLIGHT

Dr. Albert Chiou

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Director, Stanford Stanford Skin Innovation and Interventional Research Group (SIIRG)

Demonstrating the power of collaboration to amplify clinical research efforts, Dr. Albert Chiou and his colleagues formed the Stanford Skin Innovation and Interventional Research Group (SIIRG) to further skin research efforts. With a team-based model that supports all team members to succeed as principal investigators in patient oriented studies, SIIRG allows physicians who are dedicated clinicians to pursue research that furthers their patient care objectives . By sharing resources and research infrastructure, group members have taken part in more than 16 clinical trials and significant research projects – including a three year Melanoma Research Alliance Team Science Award-funded study to evaluate the use of AI-augmented triage for skin cancer.

What motivated you to form the Stanford Innovation and Interventional Research Group (SIIRG)?

SIIRG was built upon the Stanford Dermatology group's collaborative culture. Our members, Drs. Golara Honari, Kavita Sarin, Jennifer Chen, Lisa Zaba, Roberto Novoa, Justin Ko and myself do

research as a team on studies spanning atopic/contact dermatitis, alopecia areata, psoriasis, epidermolysis bullosa, digital health, care delivery innovation, artificial intelligence, and imaging. We are also building upon our colleagues' publication in Nature [1] by assembling a multidisciplinary team from across Stanford Medicine to investigate whether AI can accurately identify skin cancer legions and appropriately triage patients (PI: Dr. Roberto Novoa). As a group we're also working on biobanking and developing carefully annotated repositories of digital images of skin disease.

How does the team-based model work?

Our goal is that everyone in the group can be empowered to serve as a principal investigator in research that relates to their expertise, and we are frequently cross-trained on protocols to support each other in carrying out these studies. If we feel a study will help our patients, we invest in it as a group. Through our studies we also collaborate with colleagues in Sleep Medicine, Rheumatology, Biomedical informatics, Chemistry and the Sean Parker Center. And we couldn't do it without our amazing research manager, Melissa Jenkins, and our research coordinators. Melissa and her team help us put our plans into action, manage study operations, and actualize our research goals.

What are you most proud of?

I'm proud of the fact that we've been able to engage so many dedicated physicians who are contributing their expertise to the research world and helping patients. I love bringing our group together, because you can truly feel the innovative thinking and discovery that comes from this kind of collaboration. Our meetings are the highlight of my week.

Why do you work at Stanford Medicine?

Stanford Medicine is one of those amazing places where you can wed patient care with being at the hub of new ideas. Research and patient care can sometimes feel separated even in an academic setting, and I appreciate that this is not the case here. Stanford is very special.

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[1] Esteva, A., Kuprel, B., Novoa, R. *et al.* Dermatologist-level classification of skin cancer with deep neural networks. *Nature* **542,** 115–118 (2017). https://doi.org/10.1038/nature21056