

Innovation in Dermatology: A Spotlight on Dr. Kachiu Lee and the Virtual Magic Wand™ Program

By Dr. Morgan Murphrey

Would you describe yourself as “curious”? Many physicians would and in the field of dermatology - where we read the stories of the skin - curiosity is a fundamental component of our diagnostic and therapeutic success. It was Albert Einstein, who famously said, “I have no special talents. I am only passionately curious.”

I had the opportunity to talk with Dr. Kachiu Lee, a medical and cosmetic dermatologist in the Philadelphia area who trained at Northwestern and Massachusetts General Hospital, and currently serves on the WDS Board of Directors. She has clued into this curiosity, explaining that “physicians have always been curious”. A recent article in the American Journal of Medicine went so far as to assert curiosity as the driving force behind the progress of science.¹

Upon starting residency, Dr. Lee noticed that “there were so many frustrating problems that we ran into and just ignored---like removing tissue from a 2mm punch, patient compliance with topicals, sunscreen usage, performing biopsies in tough areas like the concha or the other edge of the external auditory meatus.” And again, she became curious, this time asking: *why are we just ignoring these problems?*

As is often the case, curiosity drove innovation. Dr. Lee “knew that there had to be better ways of addressing these issues than what was currently being done, because frankly, what was ‘currently being done’ wasn't good enough.” It was this very same curiosity and drive to innovate that propelled Drs. Lilit Garibyan and R. Rox Anderson at Massachusetts General Hospital to gather a group of dermatologists together to brainstorm frustrating problems and potential solutions. In 2013, they cofounded and started a program called the [Magic Wand Initiative](#) at Massachusetts General Hospital/Harvard Medical School Department of Dermatology, with the mission to solve unmet medical needs through innovation.

A few years later, through explorative and inquisitive discussions, the Virtual Magic Wand (VMW) program was born to allow clinicians outside of the Harvard system to be part of this mission. Inspired by the disappointments and roadblocks encountered in clinical practice, VMW participants are curious dermatologists coping with everyday problems by understanding them deeply, including outlining the specific components of ideal solutions. With the support of the 10-month VMW curriculum, spanning topics such as intellectual property, design thinking, and product fit, and the feedback of key opinion leaders, clinicians are empowered to identify unmet needs and develop problems in ways that cultivate solutions.



Arguably most excitingly – the program works! Post-program analysis of 3-cycles (2017-2020) reported a total 33 graduates, of which 58% went on to become involved in other innovation-based initiatives. Impressively, 9 of 33 graduates went on to cofound companies.² I personally learned about this program through a past scholar who has gone on to found a company with his co-scholar and was recently featured in [Forbes](#). Through their mentorship and my own experience as a VMW scholar, I was able to dig deeply into the problem of sustainability in dermatology and medicine and have gone on to receive an Early Career Innovation Grant for my project exploring a solution.

My experience also speaks to the success of another aim of this program, which is to create a network of innovators in Dermatology. Past scholars include dermatology PGY-1s, academic Professors, and private practice dermatologists with over a decade of experience. The program has most recently expanded to Europe, with the first class of European VMW scholars graduating in 2022. And coming full circle, Dr. Lee and I also met through the VMW program.

While not every problem is worth solving, and not every idea will be successful (or even feasible), looking at the world through a lens of curiosity can be an antidote to burn out. Perceiving problems as “solutions waiting to be found” has the power to turn a daily nuisance into an opportunity for creativity, success, and innovation. This spark can alleviate what can sometimes feel like the unbearable burden of problems in our workplaces and field as a whole. And as Dr. Lee aptly points out, “whether we realize it or not, we all innovate on a daily basis---using medications off label or repurposing tools for new purposes.”

I’ll leave you with this question: *are you curious?* If this article re-ignited your passion for problem solving, check out the Virtual Magic Wand webpage [here](#) to learn how you can participate.

Dr. Kachiu Lee is a medical and cosmetic dermatologist in the Philadelphia area. She primarily works in private practice, but is also on faculty at Temple assisting with cosmetic education and rotations. She is originally from Illinois and went to undergrad and medical school at Northwestern. She completed residency at Brown, and then went on to do a laser and cosmetic fellowship at MGH/Harvard. Although she lives on the East Coast, her heart lies in the Midwest! She currently serves on the Board of Directors for the WDS, and previously served as the Chair of the Young Physicians Committee and as a member of the Service Committee. The WDS has connected her with mentors and other female dermatologists struggling to balance work, life, kids, career, and more. For Dr. Lee, the WDS has been instrumental in her career development and growth.

References

1. Adashi EY, Ahmed AH, Gruppuso PA. The Importance of Being Curious. *Am J Med.* 2019;132(6):673-674.
2. Levin YS, Lee KC, Raff AB, Breslin JJ, Ju W, Garibyan L. Training the Next Generation of Clinician-Innovators: The Virtual Magic Wand Program. *JID Innov.* 2022;2(3):100108.