Rethinking How We Select Dermatology Applicants—Turning the Tide

Amy Chen, MD
Department of Dermatology,
University of California-San Francisco,
San Francisco.

Kanade Shinkai, MD, PhD
Department of Dermatology,
University of California-San Francisco,
San Francisco.

In recent years, dermatology has consistently been one of the least diverse specialties, second only to orthopedic surgery. Currently, only 3% of all US dermatologists are black and 4.2% are Hispanic, compared with 12.8% black and 16.3% Hispanic individuals in the US population, and this gap is growing. As a diverse physician workforce improves patient care, satisfaction, and services to the underserved, Pandya et al1 and others2 have recently proposed a call to action to address the diversity problem in dermatology and its detrimental effects.

This lack of diversity may have several causes, including unconscious bias, late medical school exposure to dermatology,1 lack of mentors,2 dramatically lower underrepresented minority (URM) university graduation rates, and increased URM attrition rates and delayed graduation for academic reasons in medical school.4 Furthermore, the root causes may begin earlier than previously proposed. The number of standardized tests in public schools in the United States has soared over the past decade, with the typical student taking over 100 tests by 12th grade. This emphasis on numbers is further reinforced in college and medical school, with the admissions process prioritizing high standardized test scores, top grades, and quantity over quality of activities.5 This focus students adopt at memorization and from higher socioeconomic backgrounds and systematically disadvantages URMs.6 Additionally, emphasis on extrinsic motivators (eg, studying for a good grade) can significantly undermine intrinsic motivation (eg, learning for the joy of learning).

Dermatology ranks as the third most competitive residency based on match rates. Several studies have highlighted that extrinsic motivators are prioritized in dermatology resident selection, which in turn may perpetuate lack of diversity. For example, 82% of dermatology programs require a target Step 1 score for interviews.6 Similarly, higher Step 1 scores, greater number of unpublished manuscripts, and better medical school research ranking significantly predicted dermatology match success.7 These and other filters (eg, AOA status) may preclude URM applicants, who consistently score lower than their white counterparts4 from review. Other highly ranked criteria, such as research and an “away” rotation, may also disadvantage URM applicants who lack opportunities or financial resources. Interestingly, in a recent survey of dermatology program directors, 2 of the 4 least important factors were community and humanism based, including foreign language fluency (15%) and Gold Humanism Society membership (22%).6 Taken together, reliance on extrinsic motivators and quantitative assessment from early education onwards may lead to selection of dermatology residents at the expense of individuality and diversity.

A systemic rethinking of the selection process is needed. In the landmark article “Turning the Tide” on kindergarten through 12th grade education, the authors suggest concrete recommendations to shift the college admissions process away from quantitative assessment toward community and intellectual engagement. We believe the same can be done for dermatology resident selection. We offer the following recommendations:

1. **Make diversity an explicit goal of residency selection.** This can be done in part by (a) removing the Step 1, AOA, and International Medical Graduate (IMG) filters, which may preclude review of URM applicants; (b) prioritizing the personal statement, which offers rich perspectives on the applicant’s history and aspirations; (c) creating a diversity-focused subcommittee; (d) emphasizing diversity on interview day, including question-and-answer sessions on departmental, campus, and specialty-wide diversity trends; and (e) considering diversity when ranking applicants.

2. **Shift emphasis away from test scores and publication numbers** (for example, by blinding Step 1 score and/or AOA status), and value other applicant qualities based on quality, not quantity (eg, leadership, teamwork, teaching skills, innovative vision, commitment to underserved). Though important considerations, shifting away from extrinsic motivators reduces systematic bias, especially of standardized testing, and may better identify intrinsically motivated candidates, who may in turn be happier, more fulfilled residents. In addition, deemphasizing numbers mitigates the intense pressure on applicants to publish for the sake of improving their application, which likely contributes to the significant academic misrepresentation among dermatology applicants found in a recent study.7

3. **Change the residency interview format.** Most dermatology programs only offer 1 to 2 interview dates in January, resulting in overlapping interviews that require expensive cross-country flights. This disadvantages applicants from lower socioeconomic backgrounds. Modifying the interview schedule and offering videoconferencing options as a triage step between application review and interview may help to bridge this gap. In addition, restructuring the interview day to a more traditional format (eg, 1-2 interviews for 45-60 minutes vs the current format of multiple brief interviews) may allow for more holistic applicant evaluation and assessment of other valuable qualities such as empathy, resilience, grit, and growth mindset.

**Corresponding Author:** Kanade Shinkai, MD, PhD, Department of Dermatology, University of California-San Francisco, 1701 Divisadero St, PO Box 0316, San Francisco, CA 94143-0316 (kanade.shinkai@ucsf.edu)
4. **Prioritize other competencies in addition to medical knowledge.** United States Medical Licensing Examination (USMLE) scores are poor predictors of clinical skills in residency, and Step 1 scores have limited ability to predict in-training dermatology examination performance. We propose deemphasis of USMLE scores in favor of other competencies that predict success in residency. For example, a surgical aptitude test has been shown to predict otolaryngology resident performance and may extrapolate to other procedural specialties such as dermatology. Similarly, given the importance of visual and spatial awareness in dermatology, the interview process may benefit from assessing applicants’ observation abilities, such as asking them to describe artwork.

5. **Recruit and retain more URM academic physicians to serve as mentors.** Having a mentor is associated with overall satisfaction, research productivity, and stress reduction, while a lack of mentorship is associated with loss of interest in an academic career. Having both minority and nonminority mentors available is an important part of training underrepresented dermatology residents, because the former can increase visibility and reduce stereotype threat, and the latter can still serve as valuable mentors for URM trainees even if from distinct backgrounds.

6. **Spread the word.** Adopt this plan as a shared vision among US dermatology residency programs and notify medical schools of these new search criteria. This should be a priority for all of us. The turning of the tide rests on universal awareness and adoption of this mission by key stakeholders, including medical students planning careers in dermatology.

The lack of diversity in dermatology is a critical issue. While the population of the United States continues to become more diverse, dermatology residency selection has not reflected this trend. Given that the root causes behind this lack of diversity may reach back to early education, reform at all education levels is needed to shift the emphasis away from numbers toward more holistic assessment. As a specialty, we hope to always have the opportunity to find the best and brightest residency candidates. We believe that increasing diversity fulfills this goal. Additionally, diversity in the training environment enhances preparation of all trainees to serve diverse populations. Therefore, we propose 6 recommendations for a more inclusive residency selection process in an effort to increase diversity of all kinds within the next generation of dermatologists. We hope that this proposal will stimulate discussion of our core values as a specialty. We hope it will encourage all future applicants to consider dermatology as a viable career option, to take risks, to innovate, and most importantly, to reveal to us who they are and what matters most to them so we as educators can best support their true aspirations. We will all benefit from turning the tide: finding well-rounded, intrinsically motivated future dermatologists who offer diversity, life experience, perspective, passion, and mission will guarantee that our specialty will thrive into the future.

### References


