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Disparities in Academic Dermatology

Jenna Lester, MD, Bruce Wintroub, MD, and Eleni Linos, MD, DrPH

Department of Dermatology, University of California–San Francisco, San Francisco

In this issue of *JAMA Dermatology*, Cheng et al¹ highlight sex disparities in National Institutes of Health (NIH) grant funding. Only 1 in 3 NIH grants overall are awarded to women in dermatology, and even fewer—1 in 4—R01 grants go to women. And the problem seems to be getting worse based on the analysis by Cheng et al,¹ which shows a statistically significant decrease in the proportion of NIH grants awarded to women over the 6-year study period. However, women make up 64.1% of dermatology residents² and 44.7% of practicing dermatologists² nationwide; this large pool of female dermatologists makes their findings even more striking.

Unfortunately, the problem of sex disparities is not unique to dermatology. Across all aspects of academic medicine, women are behind: women represent only 12% of full professors³ and 10% of department chairs.⁴ In a recent analysis of more than 90000 academics, women were less likely to be full professors even after accounting for age, experience, specialty, and research productivity.³ Women have fewer first or last author publications than men,⁵ and fewer women than men apply for NIH grants.⁶ Women in junior faculty positions are paid less and have significantly smaller startup packages than men with similar qualifications.⁷ Women are less often recommended for named lectureships and awards, and women are more likely to leave academia than men.⁸

Why is this happening? To better understand the real challenges women in these positions face, we informally polled a group of female academic researchers and asked for their perspectives; 41 female academic researchers responded. They quickly identified this as a timing problem: “Childbearing years coincide with the early grant years, especially if your residency program hasn’t supported pregnancy so you have to wait to start having children until the first years of junior faculty.” For many women, the time to write first K grants in any field coincides with pregnancy, breastfeeding, and taking care of young children—undoubtedly busy times. Because early career awards are available only a specific number of years from completion of training, some academic researchers were no longer eligible for these young investigator awards when they came back from maternity leave. Others commented on the lack of flexibility: “It feels very all-or-none. You’re either doing this full-time with no breaks, or you’re not doing it at all. Seems unnecessarily rigid” and “I think a huge problem is the all-or-nothing attitude when it comes to funding. It should be easier to take a break and get back in.” Finances were another important issue. Academic

Corresponding Author: Eleni Linos, MD, DrPH, Department of Dermatology, University of California–San Francisco, 2340 Sutter St, Room N413, PO Box 0808, San Francisco, CA 94143-0808 (eleni.linos@ucsf.edu).

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dermatologists often make less than half that of private practice colleagues. “If I’m not able to afford presliced vegetables for my children at precisely the time when I don’t have time to slice them myself, that’s a problem” one researcher commented. One woman, who succeeded in being fully funded for more than a decade, had to give up clinical practice entirely: “I can tell you there was no way I could do clinical, research, and be a mom. When I was doing clinical I was drowning. No matter if it was as little as 25% time it was still too much (we all know 25% is really 50%). Clinical had to go.”

Although some of the solutions to these problems need to come from federal funding agencies, we identified several concrete steps that dermatology departments can take at the institutional level to address the problem of sex disparities in academic medicine. One solution is supporting pregnancy during residency years: “My program director fully supported me—he told me that being a parent would make me a better doctor, more organized and efficient, and more empathetic to pediatric patients and their families, but more importantly he gave me the resources and time I needed.” We believe this type of emotional and practical support for pregnancy during residency should become the norm rather than the exception. Expanding established childcare services at medical schools to ensure that both residents and junior faculty have access is essential. At the faculty level, more flexibility in academic structures was identified as a key area for improvement, specifically the ability “to be on tenure track without necessarily being full-time.” A senior academic pointed out “Flexibility is essential. Instead of shaping people to fill specific positions, we should try to design positions that fit specific people and permit their skills to shine.” Several researchers provided mentorship pearls: “Narrow the research focus to be able to be on the leading edge of the research,” “Do not try to be all things to all people,” “Think outside the box for ways to get salary support to protect your time,” “Build a cross-disciplinary team, try to make the team cross-generational.” Going beyond mentorship, one researcher brought up the importance of having an advocate: “Most people who succeed have someone who is in the upper echelons who is actively advocating for their promotion, not just people who are passively supporting.” To ensure equal pay for equal work, many institutions, including the University of California–San Francisco, have maintained that all compensation plans are rule-based and not negotiated, reducing unconscious bias impacting pay discrepancies.

These suggestions are in line with the published literature on evidence-based solutions for sex equity that have been discussed extensively.^{4,9} These include explicitly addressing unconscious bias in hiring and promotion, supporting temporal flexibility in job structures, and ensuring equal pay for equal work. Pilot programs that provide grant funding specifically for caregivers have been shown to be effective in reducing attrition of women scientists. In addition paid leave for childbearing (including maternity and paternity leave), mentoring,¹⁰ and tenure clock extensions, which allow new parents more time to meet promotion requirements, are thought to be effective ways to support women.

Although not explicitly addressed in the study by Cheng et al,¹ the lack of funding for women relates to the broader problem of lack of diversity in academic Dermatology.¹¹ Nationwide, only 3% of dermatologists are black and 4.2% are Hispanic, making dermatology one of the least diverse specialties, second only to orthopedics. The proportion

of academic dermatologists from under represented backgrounds is even smaller. We know that lack of diversity in academic medicine has major ramifications for populations we serve. Physician diversity benefits patient care.¹² During race-concordant visits, patients rate their physicians as more participatory, have more positive affect, and significantly longer visits, which has implications on patient satisfaction.¹³ In addition, nonwhite physicians are more likely to care for underserved communities, and some have suggested that diversifying the physician workforce can help address health disparities.^{12,14} But diversity also matters for research; minorities are underrepresented in clinical trials, and the diseases that affect minority patients are understudied.^{15–17} Building the diversity of our faculty is therefore an essential part of the solution to improving the care of the populations we serve.

Earlier this year, Pandya et al¹¹ published a call to action and urged us all to make diversity a priority for dermatology. They highlighted the pipeline issue and gave concrete suggestions including (1) making diversity an explicit goal for dermatology, (2) broadening residency selection criteria, (3) ensuring early medical school exposure to dermatology, (4) funding, (5) supporting medical student body diversity, and (6) mentorship. We would like to join this call for action, and add 2 additional concrete suggestions for dermatology departments: (7) teach all dermatology program directors and faculty about unconscious bias and its consequences, and (8) review residency admission criteria to ensure they are objective, predefined, and not biased against minority applicants.

We are still far from seeing the potential benefit that increased diversity in our field will bring for our students, our trainees, and our patients. But we are grateful to the authors of this study on NIH funding in dermatology¹ because they challenge us to discuss difficult problems and work together to find solutions. We hope dermatology can lead the way for other academic specialties in fully supporting diversity.

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