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TITLE: Urology-Related Research in the Era of the COVID-19 Pandemic

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Urology applicants who are underrepresented in medicine (URiM) and without home Urology programs face a unique set of challenges. Approximately 19% of allopathic medical schools¹ and 81% of osteopathic medical schools do not have a home Urology program. These institutions educate considerable numbers of URiM students. Though the number of URiM medical students without home urology programs is unknown, the three medical schools that train the highest number of Black students do not have urology programs. In fact, none of the HBCU medical schools have home urology programs. Only 1 of the 3 programs that train the highest number of Latinx grads has a home program (all 3 schools are in Puerto Rico).² Latinx and Black people represent 18% and 14% of the US population respectively and approximately 6% and 7% of allopathic students in the US respectively.^{2,3} A snapshot of Latinx and Black Urology residents in 2019 showed they make up 5.7% and 3.1% of urologists-in training, respectively.⁴ To address the disparities in these numbers, the Urology community must actively recruit competitive URiM medical students.

To help distinguish Urology applicants, program directors (PDs) have placed increasing emphasis on research and associated publications. When Urology PDs were surveyed in 2014, the importance of research was ranked sixth, below Urology letters of recommendation (LORs), USMLE scores, and academic performance.⁵ A 2021 survey of PDs showed that research experience is now ranked third only to Urology LORs from non-virtual rotations and Urology clerkship grades.⁶ The implications of the new USMLE Step 1 binary scoring system for the Urology residency application are not yet understood. However, factors such as the number of research publications will likely take on increased significance in determining which applicants to interview.^{7,8}

The COVID-19 pandemic has caused the Urology community to adapt and move teaching and learning opportunities from in-person to online through various platforms. These changes have yielded unexpected opportunities for Urology researchers and medical students interested in Urology. Medical students without home programs can engage with urologists at academic centers and participate in their research. Not only does this give these students more opportunities to explore the field of Urology through research, but it also affords them a chance to build relationships with urologists, obtain strong LORs, and publish Urology-related research. This now allows URiM applicants, especially those without home Urology residency programs, to participate in previously unavailable opportunities.

Institutions can be proactive in this space by developing funded research fellowship opportunities offered to URiM medical students and unmatched applicants with an increased focus on targeting those without home Urology programs. Programs like Urology Unbound, formally known as the R Frank Jones Urology Interest Group,⁹ and UReter¹⁰ now exist to provide the needed mentorship URiM students often lack. However, this responsibility is shared by the entire urologic community. In order to diversify Urology, we must provide increased research and mentorship opportunities for underrepresented applicants and those without the benefit of a home program. Additionally, we should ensure pipeline and mentorship programs like those listed above obtain adequate funding so that they can continue to support URiM students for decades to come.

This summer, we welcome the first cohort of students to a longitudinal research and mentorship program supported by the Departments of Urology at all five major medical campuses of the University of California system. This integrative program was developed specifically for first-year medical students who are interested in Urology but matriculated at institutions without a home Urology program. These research fellowship opportunities will provide longitudinal in-person and remote mentorship with our urologists throughout medical school, which will be done in collaboration with Urology Unbound, and into the Urology application process during which we will also partner with the UReter initiative. Students perform research with us and LORs will then be coming from our institutions which then serve as their adopted home programs. Details of this program will be shared in an upcoming publication. We encourage other institutions to consider developing similar programs and would hope that urological societies and other entities within academic Urology would champion and publicize such efforts.

This, of course, is only one of several ways that we as a community can introduce these students to Urology and provide them with the mentorship that is lacking at their home institutions. Though increasing research opportunities will not entirely solve the challenges these students face in matching into Urology residency spots, it will help address some of the factors that programs have deemed important in successful Urology applicants.

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