JAMA Dermatology | Special Communication

The Skin of Color Society's Meeting the Challenge Summit, 2022 Diversity in Dermatology Clinical Trials Proceedings

Caryn B. C. Cobb, BA; Candrice R. Heath, MD; Angel S. Byrd, MD, PhD; Lynn J. McKinley-Grant, MD, MA; Valerie Callender, MD; Adewole S. Adamson, MD, MPP; Stafford Brown III, MS; Seemal R. Desai, MD; Donald A. Glass II, MD, PhD; Tarannum Jaleel, MD, MHSc; Ginette A. Okoye, MD; Susan C. Taylor, MD; Valerie M. Harvey, MD, MPH

IMPORTANCE Clinical trials remain the cornerstone for determining the safety and efficacy of an intervention. A diverse participant pool in dermatology clinical trials is critical to ensure that results are generalizable among the patient population who will ultimately depend on the efficacy of the intervention. The Skin of Color Society hosted the inaugural Meeting the Challenge Summit: Diversity in Dermatology Clinical Trials in Washington, DC, from June 10 to 11, 2022. The summit was an interactive and collaborative effort to advance discussions regarding the need for broader inclusion of racial and ethnic minority patients in dermatology clinical trials.

OBSERVATIONS The summit focused on 3 principal areas: (1) understanding the current clinical trials landscape; (2) breaking down patient, clinician, industry, and regulatory barriers; and (3) effecting change through a diversity-focused strategy. The program hosted thought-provoking panel talks and discussions with various stakeholder groups, including a keynote presentation from the family of Henrietta Lacks.

CONCLUSIONS AND RELEVANCE Panel discussions and insightful presentations from physicians, industry leaders, community trailblazers, and patients fostered new collaborations. The summit provided recommendations and suggested strategies for future initiatives designed to increase the representation of minority individuals in dermatology clinical trials.

JAMA Dermatol. doi:10.1001/jamadermatol.2023.1285 Published online May 24, 2023. Supplemental content

Author Affiliations: Author affiliations are listed at the end of this article.

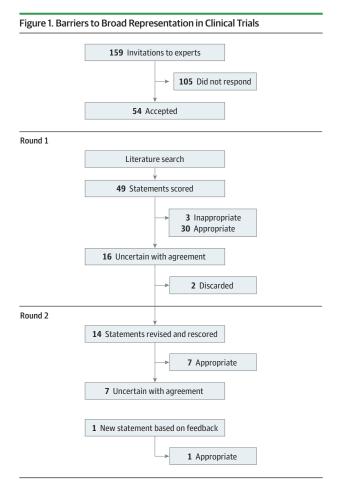
Corresponding Author: Valerie M. Harvey, MD, MPH, Hampton Roads Center for Dermatology, 860 Omni Blvd, Ste 112, Newport News, VA 23606 (valerieharvey10@gmail.com).

he Skin of Color Society hosted the inaugural Meeting the Challenge Summit: Diversity in Dermatology Clinical Trials in Washington, DC, from June 10 to 11, 2022. The 1.5-day summit provided an interactive platform for collaborative discussion among key stakeholders across the clinical trial ecosystem. The 128 meeting attendees included dermatologists; dermatology residents; community activists; industry representatives from the National Institutes of Health and the US Food and Drug Administration; editors of the Journal of the American Academy of Dermatology, the Journal of Investigative Dermatology, and JAMA Dermatology; and patient advocates and patients. An intensive and interactive program organized by the Skin of Color Society Clinical Trials Task Force, led by Valerie M. Harvey, MD, MPH, focused on 3 overarching themes: (1) understanding the current clinical trials landscape; (2) breaking down patient, clinician, industry, and regulatory barriers; and (3) effecting change through a diversityfocused strategy. Panels of internationally recognized experts representing industry, clinicians, scientists, and patients presented insights on the need for further diversity in clinical trials. The objectives of the summit were to (1) promote diversity and inclusion among clinical trial participants and investigators and expand the breadth of research portfolios to include diseases that disproportionately and negatively affect individuals with skin of color, (2) engage stakeholders across numerous sectors and form coalitions, and (3) build

diversity-focused strategies that will result in sustainable change. The eTable in the Supplement details the agenda, and the Box summarizes presentation highlights of the summit.

Box. Key Summit Highlights

- Family members of Henrietta Lacks, patients, and patient advocates urged researchers to authentically engage with the communities that they seek to study
- Inclusive and intentional study designs that are patient centered are critically needed
- Multiple factors contribute to low clinical trial representation.
 For minoritized communities, socially determined factors such as low income, low level of educational attainment, and lack of access to health care are among the principal barriers to enrollment. The relevance of these factors for participants in dermatologic studies remains unclear and requires further investigation
- The US Food and Drug Administration and National Institutes of Health/Office of Minority Health have ongoing research initiatives, fellowships, and language services developed to advance equity in clinical trials that are available
- Innovative use of technology (eg, telehealth, electronic health records) and community-based partnerships with faith-based organizations were demonstrated as successful ways to improve participant experiences in clinical trials



The keynote presentation was delivered by the grandchildren of Henrietta Lacks, an African American woman who unknowingly donated her cells to science and made invaluable contributions to furthering science; HeLa cells, named for her, have contributed to countless medical breakthroughs, including the development of the polio vaccine, cancer treatments, HIV therapies, and in vitro fertilization. The Lacks family members provided a poignant recount of their experiences and shared their thoughts on how to rectify conditions that exclude groups from the benefits of research. They urged that researchers be more transparent in their interactions with patients and emphasized the importance of engaging patients as valued partners to bridge the gap between science and the community. This Special Communication provides a summary of summit findings and recommends strategies for achieving broader patient representation in dermatology clinical research studies.

Understanding the Current Clinical Trials Landscape: Why Is It Important to Have Diversity in Clinical Trials?

Clinical trials are the cornerstone for determining the safety and efficacy of an intervention; a diverse participant population is therefore critical to determine the applicability of results among the wider patient community.² Diverse cohorts contribute to a more comprehensive data set, allowing for detection of variations in disease

biology, treatment response, and adverse events that may be obscured in a homogeneous participant pool; heterogeneous cohorts may expose findings that spur innovation and inform the development of novel therapeutics. Additionally, ensuring diversity may also help to restore the trust of potential participants who have lost confidence in the institutions and the people conducting research studies. Finally, because clinical trials provide access to interventions that may confer health benefits, broad representation is a critical and necessary step toward eliminating health disparities.

Breaking Down Barriers—Patient, Clinician, Industry, and Regulatory: Barriers to Diversity in Dermatology Clinical Trials

Despite mandates of the National Institutes of Health Revitalization Act of 1993, which requires the inclusion of women and racial and ethnic minority individuals in government-funded clinical research,³ and the US Food and Drug Administration's race and ethnicity guidance, which calls for greater inclusion of racial and ethnic minority individuals in clinical trials, 4 study populations remain narrow and inappropriately homogeneous. A recent analysis of data from more than 20 000 US-based trials found a 1.7% increase in trial diversity between 2000 and 2020; minority enrollment remained below census estimates and was most profound for Latino and Asian individuals.⁵ Chen et al found that while race and ethnicity reporting in dermatologic clinical trials in the US increased from 59.8% during 2010 to 2015⁶ to 71.9% during 2015 to 2020,⁷ the proportion of studies with adequate non-White racial and ethnic representation (which the authors defined as \geq 20%) remained statistically stagnant over time. While representation varied by disease state, studies in psoriasis were the least diverse, with only 12.1% of studies recruiting at least 20% non-White participants. The National Institutes of Health National Institute on Minority Health and Health Disparities Strategic Plan (2021-2025) Leap Forward Research Challenge proposes that adequate representation of minoritized communities should increase to 40% by 2030 and within specific major disease categories.8

There are multiple reasons for insufficient representation in clinical research studies, including patient-, clinician-, institutional-, industry-, and policy-related barriers (Figure 1). At the patient level, socially determined factors such as economic stability (income), level of education, health care access, and community context are principal drivers of clinical trial participation. A recent examination of participation in cancer trials found that patients with an annual household income below \$50 000 had statistically significant lower odds of trial participation compared with patients with higher incomes. Numerous studies have demonstrated low levels of representation of those patients with low levels of educational attainment.

A systematic review of factors influencing African American participation in cancer clinical trials revealed 5 prime obstacles for recruitment, including low levels of trial awareness, negative attitudes, religious beliefs, and logistical barriers (including transportation and childcare needs). Whether these factors are relevant for participants in dermatologic studies needs further investigation.

Target audience Journals Community-based Health care Investigators Federal agencies Study sponsors professionals organizations (pharmaceutical (FDA, NIH) companies, contract research organizations) Provide funding and Investigators should be Ensure inclusive Encourage legislation Institute requirements Increase awareness and language, terminology, education about clinical such as the Clinical for diverse populations proficient in discussing support resources in in research to achieve trials and work with clinical trials with people resource-limited publication stakeholder groups to from all backgrounds especially when settings, locally describing race and include communities regionally, and ethnicity nationally of color Ensure data published Increase outreach efforts Ensure availability of Ensure diverse and Find and work with Enforce stringent bilingual research staff are applicable and in minoritized culturally sensitive. community leaders and legislation requiring representative of the communities patient-directed principal investigators study sponsors to submit information (eg, language translation population and teach them about diversity action plans clinical trials capability) Journal editors need Ensure community Work with community Ensure flexible Collaborate within Create task forces to to purposefully infuse leaders have adequate organizations and scheduling and provide communities and with address and implement health equity diversity in their understanding about sponsors to increase trust childcare for participants novel ways to approach educational content clinical research and and spread awareness of researchers on research increasing diversity in and in board and priorities resources available clinical trials research author representation Work with sponsors and Ensure that clinical trial Collaborate within Change the fee Work with stakeholders physicians to reach out to navigators are communities and with structure to provide to provide information consistently providing community members health equity researchers up-front costs for about legislation and available support for updates and open clinician protected time on research priorities communication and hiring and paying addressing diversity in throughout the clinical research teams clinical research trial process Establish patient Create guidelines for Need to appreciate and Implement tax credits or advocacy groups inclusive criteria of study share the value of financial penalties for populations companies that do or do diversity with not meet diversity physician stakeholders henchmarks Community-based Decentralize clinical organizations need the

Figure 2. Skin of Color Society Recommendations Matrix

FDA indicates US Food and Drug Administration; NIH, National Institutes of Health.

support and partnership of health care professionals, investigators, and study sponsors to implement any of the above recommendations

While historical and modern-day biases against marginalized populations have been presumed to drive low representation in biomedical research, there is a large body of evidence refuting this assumption. Numerous studies report equivalent willingness to participate by American Indian or Alaska Native, Asian, Black, Hispanic, and non-Hispanic White individuals. ¹²⁻¹⁴ Wendler et al ¹⁵ examined 20 studies that reported race or ethnicity consent rates for more than 70 000 individuals and found that minority individuals were slightly more willing than White individuals to participate in a variety of non-interventional and interventional studies. Notably, these authors detected critical differences in the rates at which minority individuals were invited to enroll; for example, in a large study on angina pectoris, only 30 of the 2095 participants asked to enroll were from minority groups even though the prevalence of angina is higher in African American and Hispanic individuals than in White individuals. ¹⁵

The lack of diversity in the scientific workforce is an important contributor to insufficient clinical trial representation. Recent data from the Association of American Medical Colleges reveal that Black and Hispanic dermatologists comprise 3% and 4% of the dermatology workforce, respectively. A dermatology workforce that does not mirror the US population (13.6% Black and 18.9% Hispanic) may be ineffective in successfully engaging marginalized communities. Medical expenditure data have also shown that non-White physicians care for 53% and 70% of non-White and non-English speaking patients, respectively. Findings from the Tuskegee Legacy Project found that Black survey respondents were more willing to participate in a biomedical study if they were asked by their own physician mathematical that may be possible to achieve parity in participation by increasing the number of underrepresented minority dermatologists.

Effecting Change Through a Diversity-Focused Strategy: Recommendations and Strategies for Increasing Representation

Realization of clinical trial diversity will require time, pragmatism, and ambitious vision. Given the complexity of the clinical trial ecosystem, progress toward equity will necessitate collaboration between numerous stakeholders, including federal agencies, industry, academic institutions, medical journals, participants, clinicians, investigators, and community-based organizations (Figure 2).²¹ From a policy perspective, bold top-down federal interventions must shift current paradigms. In 2022, the US House of Representatives passed legislation requiring study sponsors to submit diversity action plans, including goals of enrollment and steps toward achieving goals for phase 3 studies of novel drugs.²² Critics argue that this legislation is unlikely to help because it does not provide mechanisms for remediation should a sponsor fail to meet intended targets. Hwang et al²² propose that a combination of federal incentives and regulations are required to elicit meaningful change²²; initiatives such as awarding research grants to community health institutions that serve minority populations and do not have the resources to conduct clinical trials may alleviate financial and staffing burdens associated with clinical studies, as well as providing a means to engaging this patient population.²² Another notable legislative achievement is passage of the Clinical Treatment Act (2022), which requires all US states and territories to reimburse routine costs of care for any Medicaid enrollee's participation in a qualifying clinical trial.²³ As Medicaid insures approximately 20% of the US population, this legislation has the potential to eliminate financial and insurance-related barriers for a large racial and ethnic minority patient population.²⁴

Peer-reviewed journals function as the gatekeepers of scientific knowledge and advancement, and there are several ways that journals can help advance diversity in clinical trials. Journals can require authors to report their methodology and strategies for ensuring diversity in terms of age, gender, race, ethnicity, and other demographic variables of importance. Failure to achieve diversity should require justification from both the researchers and the journal. During a summit panel discussion focusing on journal editors' perspectives on data and analysis within clinical trials, Russell Hall, MD, recommended that researchers be required to perform subpopulation analyses of race, ethnicity, and sex, regardless of whether the analyses reach statistical significance to include more diverse populations in clinical

trials, as this approach may inform the development of clinical hypotheses for subsequent studies. Although this is an interesting approach, it is important to note that such analyses within clinical studies should be appropriately planned with sufficient power to ensure that responses in clinical studies are not confounded by genetic, biological, or social constructs. Notably, the *New England Journal of Medicine* now requires authors to provide a supplementary table of background information on the disease or condition of study and the representativeness of their study group. ²² Additionally, dermatology journal editors will need to support inclusion at all levels of journal activity, from educational content to broader representation of editorial board members and authors, to avoid publication bias.

The communities that dermatologists aim to benefit must be involved to increase representation or diversity in clinical trials. This engagement requires long-term investment and should occur before clinical intervention, prioritizing the "return on investment" back to study participants and their broader community. Asabor et al²⁵ recommend a multipronged community engagement framework to ensure successful collaboration with historically marginalized populations. The authors propose partnering with communities to define research priorities, collaborating with health equity researchers, and encouraging dermatology workforce diversification. Leadership of national organizations and academic institutions should support efforts to diversify the dermatology workforce, as underrepresented minority dermatologists are more likely to practice in underserved communities. ²⁶ A contemporaneous and explicit effort to mentor and develop underrepresented minority individuals to assume academic and nonacademic leadership positions will broaden and balance future research and policy directives. For example the Skin of Color Society, in collaboration with the dermatology section of the National Medical Association, has recently established a clinical trial mentorship program specifically designed to address the issue of underrepresented minority clinical trialists.²⁷

The summit concluded that the causes of lack of representative dermatology clinical trials deserve more intensive study. It is important that researchers understand the reasons and nuances that contribute to low rates of participation among minority and marginalized groups to develop effective interventions. In the endeavor for diversity, it is vital that researchers are aware of the fundamental differences of social and biological constructs. Identifying optimal demographic descriptors to define subpopulations of interest may encourage standardization across clinical trials; however, these may not adequately evaluate biological responses based on ancestral markers.

ARTICLE INFORMATION

Accepted for Publication: April 2, 2023. Published Online: May 24, 2023. doi:10.1001/jamadermatol.2023.1285

Author Affiliations: The Warren Alpert Medical School of Brown University, Providence, Rhode Island (Cobb); Department of Dermatology, Lewis Katz School of Medicine, Temple University, Philadelphia, Pennsylvania (Heath); Department of Dermatology, Howard University College of Medicine, Washington, DC (Byrd, McKinley-Grant, Callender, Okoye); Department of Dermatology, Johns Hopkins University School of Medicine, Baltimore, Maryland (Byrd); Department of Dermatology, Duke University School of Medicine, Durham, North Carolina (McKinley-Grant, Jaleel); Callender Dermatology and Cosmetic Center,

Washington, DC (Callender); Division of Dermatology and Dermatologic Surgery, Dell Medical School at The University of Texas at Austin (Adamson): Eastern Virginia Medical School, Norfolk (Brown); Department of Dermatology, The University of Texas Southwestern Medical Center, Dallas (Desai, Glass); Innovative Dermatology, Dallas, Texas (Desai); Department of Dermatology, Perelman School of Medicine at the University of Pennsylvania, Philadelphia (Taylor); Department of Dermatology, Icahn School of Medicine at Mount Sinai, New York, New York (Taylor); Hampton Roads Center for Dermatology, Newport News, Virginia (Harvey); Skin of Color Research Institute, Hampton University, Hampton, Virginia (Harvey).

Author Contributions: Dr Harvey had full access to all of the data in the study and takes responsibility

for the integrity of the data and the accuracy of the data analysis.

Concept and design: Cobb, Heath, McKinley-Grant, Callender, Adamson, Brown, Desai, Glass, Jaleel, Okoye, Taylor, Harvey.

Acquisition, analysis, or interpretation of data:
Cobb, Byrd, Jaleel, Okoye, Taylor, Harvey.
Drafting of the manuscript: Cobb, Callender, Harvey.
Critical revision of the manuscript for important intellectual content: Cobb, Heath, Byrd,
McKinley-Grant, Adamson, Brown, Desai, Glass,
Jaleel, Okoye, Taylor, Harvey.
Statistical analysis: Cobb

Statistical analysis: Cobb. Obtained funding: Cobb.

Administrative, technical, or material support: Cobb, Brown, Okoye, Harvey. Supervision: Cobb, Heath, McKinley-Grant,

Supervision: Cobb, Heath, McKinley-Grant, Callender, Desai, Jaleel, Taylor.

Conflict of Interest Disclosures: Dr Byrd reported being the recipient of the Skin of Color Society's Career Development Award to support professional development and research efforts, the Society for Investigative Dermatology Freinkel Diversity Fellowship Award, and the Robert A. Winn Diversity in Clinical Trials Career Development Award funded by the Bristol Myers Squibb Foundation: she is also a consultant for Senté and Sonoma Biotherapeutics outside the submitted work. Dr McKinley-Grant reported personal fees from Janssen during the conduct of the study and served as the past president of the Skin of Color Society. Dr Callender reported grants from AbbVie, Dermavant, Galderma, Janssen, L'Oreal, Lilly, and UCB during the conduct of the study; grants from Acne Store, Almirall, Aerolase, Avava, Avita Medical, Beiersdorf, Cutera, Epi Health, IKNOW Skincare, Incyte, Juenesse Aesthetics, OrthoDerm, Pfizer, Prollenium, Scientis, Sente, SkinBetter Science, SkinCeuticals, Symatese, and Teoxane, as well as personal fees from UpToDate outside the submitted work; and serving as a founding member and past president of the Skin of Color Society. Dr Desai reported serving as past president of the Skin of Color Society and is the president-elect of the American Academy of Dermatology; he also serves as a researcher and/or consultant for Pfizer, Lilly, AbbVie, Bristol Myers Squibb, and Galderma. Dr Glass reported personal fees from Pfizer, UCB, and AbbVie outside the submitted work and served as past president of the Skin of Color Society. Dr Jaleel reported grants from Pfizer, the Skin of Color Society, the Dermatology Foundation, and the National Institutes of Health Building Interdisciplinary Research Careers in Women's Health (K12HD043446), as well as personal fees from UCB, Lilly, Novartis, and ChemoCentryx outside the submitted work. Dr Okoye reported grants from Janssen and Pfizer; personal fees from Unilever, Novartis, Lilly, AbbVie, Sanofi, and UCB; and serving on the board of the HS Foundation outside the submitted work. Dr Taylor reported personal fees from AbbVie, Arcutis Biotherapeutics, Armis, Avita Medical, Beiersdorf, Biorez, Bristol Myers Squibb, Cara Therapeutics, Dior, Lilly, EPI Health, Evolus, Galderma, Glogetter, Hugel America, Johnson & Johnson, L'Oreal, MedScape, MJH Life Sciences, Pfizer, Piction Health, Sanofi, Scientis, UCB, Vichy Laboratoires, McGraw Hill, and Mercer Strategies: grants from Allergan Aesthetics, Concert Pharmaceuticals, Croma-Pharma GmbH, Lilly, Pfizer, all outside the submitted work; and serving as past president of the Skin of Color Society. Dr Harvey reported grants from AbbVie, Arcutis Biotherapeutics, Bristol Myers Squibb, Dermavant, Eli Lilly, Galderma, Google, Janssen, L'Oreal, Revision Skincare, Sanofi/Regeneron, UCB, and Vial during the conduct of the study; serving on the advisory boards of UCB, Skinceuticals, AbbVie, and Bristol Myers Squibb; serving as a consultant for L'Oreal, Novartis, and Unilever; and serving as the current president of the Skin of Color Society. No other disclosures were reported.

Disclaimer: Dr Adamson is an Associate Editor and Web Editor of *JAMA Dermatology* but was not involved in any of the decisions regarding review of the manuscript or its acceptance.

Additional Contributions: We thank the family of Henrietta Lacks for sharing their advice and experiences, as well as the many clinical trial participants who shared their stories at the summit. We also thank Janice Ayarzagoitia, MA, and

Kimberly Miller, BA, of TREX & Medical Society Management, which manages the Skin of Color Society, for their help with the summit. Finally, we thank the Meeting the Challenge Summit: Diversity in Dermatology Clinical Trials task force members and the Skin of Color Society officers and board of directors for their support.

Additional Information: The Skin of Color Society's Meeting the Challenge Summit was supported by AbbVie, Janssen, Bristol Myers Squibb, Lilly, Arcutis Biotherapeutics, Dermavant, Galderma, Google, Sanofi/Regeneron, L'Oreal, Revision Skincare, UCB, and Vial.

REFERENCES

- 1. Skloot R. *The Immortal Life of Henrietta Lacks*. Broadway Books; 2011.
- Kamal K, Imadojemu S, Charrow A. Why diversity in dermatology clinical trials should no longer be optional: dismantling structural racism in dermatology. *JAMA Dermatol*. 2022;158(4):353-354. doi:10.1001/jamadermatol.2021.5190
- 3. National Institutes of Health Revitalization Act of 1993, HR 4, 103rd Cong (1993). Pub L No. 103-43. Accessed April 10, 2023. https://www.congress.gov/bill/103rd-congress/house-bill/4
- 4. Enhancing the diversity of clinical trial populations—eligibility criteria, enrollment practices, and trial designs: guidance for industry. US Food and Drug Administration. November 2020. Accessed April 10, 2023. https://www.fda.gov/regulatory-information/search-fda-guidance-documents/enhancing-diversity-clinical-trial-populations-eligibility-criteria-enrollment-practices-and-trial
- 5. Turner BE, Steinberg JR, Weeks BT, Rodriguez F, Cullen MR. Race/ethnicity reporting and representation in US clinical trials: a cohort study. *Lancet Reg Health Am.* 2022;11:11. doi:10.1016/j.lana. 2022.100252
- **6**. Charrow A, Xia FD, Joyce C, Mostaghimi A. Diversity in dermatology clinical trials: a systematic review. *JAMA Dermatol*. 2017;153(2):193-198. doi:10.1001/jamadermatol.2016.4129
- Chen V, Akhtar S, Zheng C, Kumaresan V, Nouri K. Assessment of changes in diversity in dermatology clinical trials between 2010-2015 and 2015-2020: a systematic review. *JAMA Dermatol.* 2022;158(3): 288-292. doi:10.1001/jamadermatol.2021.5596
- 8. Diversity and inclusion in clinical trials. National Institute on Minority Health and Health Disparities. Updated March 15, 2023. Accessed April 10, 2023. https://www.nimhd.nih.gov/resources/understanding-health-disparities/diversity-and-inclusion-in-clinical-trials.html.
- 9. Unger JM, Gralow JR, Albain KS, Ramsey SD, Hershman DL. Patient income level and cancer clinical trial participation: a prospective survey study. *JAMA Oncol.* 2016;2(1):137-139. doi:10.1001/jamaoncol.2015.3924
- **10**. Herndon JE II, Kornblith AB, Holland JC, Paskett ED. Effect of socioeconomic status as measured by education level on survival in breast cancer clinical trials. *Psychooncology*. 2013;22(2): 315-323.
- 11. Rivers D, August EM, Sehovic I, Lee Green B, Quinn GP. A systematic review of the factors influencing African Americans' participation in cancer clinical trials. *Contemp Clin Trials*. 2013;35 (2):13-32. doi:10.1016/j.cct.2013.03.007
- 12. Unger JM, Hershman DL, Till C, et al. "When offered to participate": a systematic review and

- meta-analysis of patient agreement to participate in cancer clinical trials. *J Natl Cancer Inst*. 2021;113 (3):244-257. doi:10.1093/jnci/djaa155
- 13. Ford JG, Howerton MW, Lai GY, et al. Barriers to recruiting underrepresented populations to cancer clinical trials: a systematic review. *Cancer*. 2008;112 (2):228-242. doi:10.1002/cncr.23157
- **14.** Clark LT, Watkins L, Piña IL, et al. Increasing diversity in clinical trials: overcoming critical barriers. *Curr Probl Cardiol*. 2019;44(5):148-172. doi:10.1016/j.cpcardiol.2018.11.002
- **15.** Wendler D, Kington R, Madans J, et al. Are racial and ethnic minorities less willing to participate in health research? *PLoS Med.* 2006;3(2):e19. doi:10.1371/journal.pmed.0030019
- **16**. Diversity in medicine: facts and figures 2019. Association of American Medical Colleges. Accessed April 10, 2023. https://www.aamc.org/data-reports/workforce/report/diversity-facts-figures.
- 17. QuickFacts population estimates. US Census Bureau. July 21, 2021. Accessed April 10, 2023. https://www.census.gov/quickfacts/fact/table/US/PST045221
- **18**. Marrast LM, Zallman L, Woolhandler S, Bor DH, McCormick D. Minority physicians' role in the care of underserved patients: diversifying the physician workforce may be key in addressing health disparities. *JAMA Intern Med*. 2014;174(2):289-291. doi:10.1001/jamainternmed.2013.12756
- 19. Katz RV, Green BL, Kressin NR, Claudio C, Wang MQ, Russell SL. Willingness of minorities to participate in biomedical studies: confirmatory findings from a follow-up study using the Tuskegee Legacy Project Questionnaire. *J Natl Med Assoc.* 2007;99(9):1052-1060.
- 20. Takeshita J, Wang S, Loren AW, et al. Association of racial/ethnic and gender concordance between patients and physicians with patient experience ratings. *JAMA Netw Open*. 2020;3(11):e2024583. doi:10.1001/jamanetworkopen.2020.24583
- 21. Michaud S, Needham J, Sundquist S, et al. Patient and patient group engagement in cancer clinical trials: a stakeholder charter. *Curr Oncol*. 2021;28(2):1447-1458. doi:10.3390/curroncol28020137
- **22**. Hwang TJ, Brawley OW. New federal incentives for diversity in clinical trials. *N Engl J Med*. 2022;387 (15):1347-1349. doi:10.1056/NEJMp2209043
- 23. Raths D. New law requires Medicaid coverage of clinical trial participation. Healthcare Innovation. January 4, 2022. Accessed April 10, 2023. https://www.hcinnovationgroup.com/policy-value-based-care/medicare-medicaid/news/21251951/new-law-requires-medicaid-coverage-of-clinical-trial-participation
- **24.** Vose J. Minority enrollment to clinical trials: road to increased access. *Oncology (Williston Park)*. 2021;35(3):107. doi:10.46883/ONC.2021.3503.0107
- **25.** Asabor EN, Cohen JM, Aysola J. Why increased diversity in dermatologic clinical trials is not inherently ethical-an evidence-based, community-engaged approach to diverse trial recruitment. *JAMA Dermatol*. 2022;158(10):1219. doi:10.1001/jamadermatol.2022.3109
- **26**. Lester J, Wintroub B, Linos E. Disparities in academic dermatology. *JAMA Dermatol*. 2016;152 (8):878-879. doi:10.1001/jamadermatol.2016.1533
- **27.** Rubin E; Editors. Striving for diversity in research studies. *N Engl J Med*. 2021;385(15):1429-1430. doi:10.1056/NEJMe2114651