

## Building an anti-racist research lab to elevate our science and scientific careers

Vivian Villegas  
Zurisadai Salgado  
Kyle Truevillian  
Vera Kaelin  
Mary Khetani

### Author bios

Vivian Villegas, MS, OTR/L: Vivian Villegas is a pediatric occupational therapist and OTD student at the University of Illinois at Chicago (UIC). She is a BIPOC graduate research assistant at the Children's Participation in Environment Research Lab (CPERL) at UIC (<https://cperl.ahslabs.uic.edu>). Her work aims to create clear, accessible, and compelling information for caregivers as they navigate electronic participation-focused tools.

Zurisadai Salgado: Zurisadai Salgado is a first-generation Mexican-American honors undergraduate, majoring in Kinesiology at UIC. She is a research assistant at CPERL, working on her capstone project to optimize stakeholder use of two electronic tools in pediatric re/habilitation.

Kyle Truevillian: Kyle Truevillian is an undergraduate studying Human Health and Nutrition at Emory University. He identifies as a BIPOC intern at CPERL. He contributes to diversifying optimizations of electronic tools that are being optimized for family-centered and participation focused pediatric re/habilitation.

Vera Kaelin, MSc, OT: Vera Kaelin is an occupational therapist and PhD student in Rehabilitation Sciences at UIC. She identifies as a non-BIPOC member of CPERL. Her work focuses on the development and implementation of electronic assessments and interventions to promote participation of children with disabilities.

Mary A. Khetani, ScD, OTR/L: Mary Khetani is a pediatric occupational therapist and rehabilitation scientist. She is a tenured Associate Professor and BIPOC faculty member at UIC. She directs CPERL where her research team conducts interdisciplinary and multisite translational research to advance family-centered and participation-focused pediatric re/habilitation. Dr. Khetani serves as President for the AWIS Chicago Chapter.

## Why build an anti-racist research lab

*“Not everything that is faced can be changed, but nothing can be changed until it is faced.”*

*James Baldwin*

Rehabilitation practitioners and scientists know that environments matter in shaping the lives of children with, or at risk for, disability. Similarly, institutional environments shape how we build evidence-based practices. Black, Indigenous, and People of Color (BIPOC) faculty, staff, and students in academic institutions work tirelessly every day to belong. Academic research labs that train talented and committed students for careers as research- engaged clinicians and career scientists are instrumental in promoting racial equity.

Our BIPOC-majority research team embarked on a path to fostering an anti-racist research lab this summer. We safely gathered, with masks and disinfectant in hand, for courageous conversation about moving beyond our online statement of solidarity with the Black Lives Matter movement. We achieved consensus about our shared privilege and responsibility to shape a research environment where we continuously strive to elevate the standards by which we conduct our science and how we conduct ourselves as scientists or scientifically engaged clinicians. We therefore applied ten rules from Chaudhary and Berhe (2020) to appraise our lab environment and identify strategic and immediate action steps to operate as an anti-racist research lab. We vetted this plan with eight lab alumnae (Erin Albrecht, Kristen Arestad, Dianna Bosak, Andrea Gurga, Jessica Jarvis, Xinrui Jiang, Heather Lim, and Rachel Ohene).

### **Action planning for an anti-racist research lab**

*“Silence encourages the tormentor, never the tormented” – Elie Wiesel*

Rule 1 posits that solidarity movements require intentional and regularly scheduled conversations to break the violence of silence. Our lab handbook describes norms for critical discussion and debate during weekly lab meetings and annual retreats (e.g., ethical dilemmas, journal clubs). We will expand lab meetings and retreats to routinely include courageous conversations about racism in academia. These conversations will intentionally give BIPOC lab members choice for engagement, both when selecting scholarly resources for discussion (e.g., twitter feeds, podcasts, articles) and by honoring their lived experiences when voluntarily shared during discussion. We expect these critical discussions to empower lab members to be allies by equipping them with vocabulary, sensitivity, and confidence necessary to act with courage.

Rule 2 posits that racism occurs in the academic workplace and impacts one’s sense of safety and belonging. Therefore, an antiracist lab’s code of conduct explicitly welcomes BIPOC members to belong as equal lab members. We co-created a lab handbook describing our code of conduct and a lab safety plan. We have also worked tirelessly to ensure equitable access to keys, card readers, and computing for all lab members. We will further foster a safe and welcoming environment by creating lab apparel (e.g., mask with lab logo), establishing a group text messaging system for inclusive communication, and adopting a formal buddy system for onboarding. These efforts will be outlined in our lab handbook.

Rule 3 posits that the contributions of BIPOC scientists need to be routinely sought out and recognized. BIPOC scientists should receive equal opportunity to earn a credited role on publications, presentations, and grants for their advancement. Our lab employs a generous model of assigning credit for contribution (e.g., co-first and co-senior authorship on refereed and nonrefereed deliverables, formal acknowledgement built into onboarding). Therefore, each BIPOC lab member has earned formal acknowledgement and/or authorship for their contributions. We will invest more lab resources into BIPOC run businesses and proactively acknowledge them on deliverables to publicize their contributions. We will also include a photo of lab members being acknowledged in lab website posts and social media dissemination.

Rule 4 posits that racial biases can and do hinder mentor-mentee relationships that drive mentee success. We employ a continuum of mentorship model, so lab members are typically co-mentored for one or more aspects of their training, to ensure healthy transparency in the mentoring relationship. We sporadically connect current members to lab alumnae and collaborators who are external to the lab. We will intentionally seek collaboration with lab alumnae and scholars external to the lab in ways that are of mutual benefit (e.g., invited talk, lab dinner at conference, invite to serve as committee member) so that BIPOC mentees can strengthen their scientific networks.

Rule 5 posits that BIPOC colleagues and lab members should be sponsored by intentionally reading and citing their work, highlighting their scientific contributions and not solely their diversity, equity, and inclusion (DEI) contributions, and compensating them for educating others on DEI. Each lab member is visible on our website with name, title, and bio

vetted by lab members. We routinely nominate lab members for awards and scholarships and have started to correct when our lab's work and/or a team member is excluded from recognition. As a BIPOC-led and majority lab, we will more consistently find, share, and cite our lab's work and those of our BIPOC colleagues, to amplify underrepresented voices in our scope of work (e.g., when conducting a manuscript review). We may add ResearchGate links to further enhance lab member profiles on our website.

Rule 6 posits that an anti-racist lab will provide dedicated spaces for BIPOC members to safely examine topics related to racism in science, in the absence of White colleagues. Mentors may prepare an agenda and share resources prior to these meetings and urge mentees to create follow-up action items to address identified issues during meetings. We have met to discuss race equality in science with all lab members present, and lab members also have protected mentorship meetings with the BIPOC lab director to discuss sensitive topics. We will create affinity peer groups (e.g., when assigning co-mentors), to provide safe spaces for BIPOC members to process sensitive topics about racism in academia, without retribution.

Rule 7 posits that diversifying research labs should be prioritized. Since our interdisciplinary science targets improvements to interprofessional practice, we have attracted and trained students with multiple disciplinary backgrounds, perspectives, and aspirations. Approximately one-third of these students identify as BIPOC. We have a five-step process for recruiting new members, one of which is a team interview that allows the team and applicant opportunities to appraise research and mentor fit. We will seek BIPOC lab member input when

examining our recruitment strategies, adding DEI statements to our recruitment and hiring materials, and making decisions about how to diversify our recruitment and hiring strategies.

Rule 8 posits that an anti-racist research lab affords for a focused and flexible research agenda that rewards scientific innovation and amplifies the voices of BIPOC members whose innovations are more likely to be overlooked. We will amplify intellectual perspectives that challenge our norms for conducting our science. For example, we are partnering with White and BIPOC colleagues to challenge the rules to adapt pediatric rehabilitation measures to new cultural contexts (e.g., deny requests to change the color black from an assessment's aesthetic) and accurately describe those adaptations (e.g., describe an assessment as adapted for use in a cultural context, but not generalizable to all individuals in that context). We will diversify our assessments and interventions to so that they are more accessible (e.g., include terms like 'racism', 'microaggressions', and 'bias' to help families complete an assessment of how an environment might impact their child's participation in activities). We will amplify and better credit BIPOC contributions when recruiting, enrolling, retaining, and describing sample participants in upcoming intervention trials.

Rule 9 posits the importance of BIPOC representation in lab leadership and within professional networks, to benefit from their knowledge, skills, and actions rather than meet a quota or gain publicity. Our lab handbook contains policies about use of lab resources to support lab members when presenting at conferences, and flexible schedules afford for volunteerism to build a meaningful professional network. We will more intentionally empower

BIPOC members with advancement opportunities within sponsored projects for their scientific career development.

Rule 10 posits that one does not have to hold a position of power to speak truth to individuals with power. To create a safe environment, we have and will act on violations of confidentiality as outlined in our lab handbook. This will allow lab members to share instances of overt and covert biases and aggressions encountered (e.g., confronting ethical concerns arising during peer review) so that we can address them. Authentic allyship is important when inside the research lab and when representing the lab at the institution and within the broader scientific community. We will require each member to have a goal and assigned readings on authentic allyship in their mentorship agreement and create protocol in our lab handbook for acting as a bystander.

### **Where we go from here**

*“Do the best you can until you know better. Then when you know better, do better.”*

*Maya Angelou*

Science benefits from inclusive excellence. Racism in academia hinders BIPOC lab members in doing their best scientific work and sustaining scientific careers. We therefore designed an actionable plan to undertake strategic improvements to our lab’s research portfolio and code of conduct. We expect experimental failure, are prepared to fail forward, and believe we will continue breaking silence through action. We share this initial anti-racist action plan as a resource to encourage other labs to do the same.