

Equity in Science, Medicine, and Health

Workforce Development Partnership Opportunities at Duke CTSI

Why invest in workforce development?

Substantial evidence suggests that diverse teams are more innovative, leading to better outcomes for companies, including superior products, retention of talent, and enhanced financial performance compared with homogeneous teams. But how do companies recruit and retain the best individuals from diverse backgrounds?

The Duke CTSI Workforce Development (WFD) Group is looking to partner with companies committed to reaching and retaining diverse talent in the STEM workforce—propelling individuals into exciting careers in healthcare, biotech, pharma, medicine, and beyond. By aligning with us, sponsors will gain premier access to and develop meaningful relationships with talented individuals early in their careers. This, in turn, will enable recruitment for future employment and collaboration on endeavors to expand sponsors' innovative capacities.

The Duke CTSI WFD Group offers a portfolio of opportunities to increase the visibility of partner companies, including:

Access Opportunities

- Keynote speaker at sponsored events
- Guest speaker access to classrooms during key recruitment phases
- Student resume access
- Focused interviews on campus with students
- Internship/job postings on relevant website(s)
- Customized internship-intern matching support
- Filtered internship/job announcements to students from underrepresented backgrounds

Branding Opportunities

- Naming rights for WFD-related centers, fellowships, and/or internship opportunities, which will be amplified on our website, social media, and outward-facing marketing products
- Exclusive WFD event branding, including banners (provided by company), meter boards, event program booklet, and event signage
- Branded swag (e.g., t-shirts, frisbees, pins, backpacks) for distribution to program partners and participants
- Corporate web spotlights
- Website hero images
- Company logo and link on relevant WFD website(s)
- Level-specific company partnership recognition as partner on relevant WFD website(s)

A range of programs and offices in our WFD ecosystem are ready to partner with industry to accelerate progress on their goals to increase the quality and diversity of our workforce.

PREMIER OPPORTUNITIES: High-profile, innovative workforce development centers, programs, and resources

- Duke Center for Pathway Programs
- NCCU Clinical Research Sciences Program
- Integrated Duke-NCCU Neuroscience Training Pathway
- Duke-Durham Tech Clinical Research Equity Scholars Program
- <u>Duke CTSI Workforce Development Lab</u>

OTHER OPPORTUNITIES: Longstanding training programs with a track record of success

- Duke Scholars in Molecular Medicine
- Duke Office of Physician-Scientist Development
- National Clinician Scholars Program at Duke

PREMIER OPPORTUNITIES

The Center for Pathway Programs (CPP): Launched in 2021, CPP facilitates pathway and career development opportunities for students, trainees, and faculty. For program participants, CPP seeks to align the efforts of pathway programs, creating an ecosystem for participants to seamlessly transition between opportunities that continue their learning once each program is complete. For programs, CPP seeks to provide a web-based platform that enables shared participant tracking, improved program to program coordination, and program evaluation that alleviates administrative burden.

Funding opportunities:

- 1. Center naming rights and infrastructure support (\$1,000,000)
- 2. Funding for research undertaken by the Living Learning Labs labs devoted to the scientific study of the pathway programs themselves (efficacy, outcomes, etc.) (\$100,000)
- 3. Stipends for cascade mentors mentors that remain engaged in the CPP as they advance from program to program, thus providing shared experiences and expertise to more junior learners (\$2000/mentor or fund and name the whole program for \$100,000)
- 4. Funding of CPP program swag to include company logo (\$1000)
- 5. Level specific matching of students, scientists, and doctors in CPP programs to opportunities for internships, collaborations, or full-time jobs at your company (Cost negotiable dependent upon opportunity)
- 6. Transportation scholarships for our students (\$500/student, sponsor 100 students and we would name transportation scholarship after your company)



NCCU Clinical Research Sciences Program (CRSP): North Carolina Central University (NCCU) launched this program in 2020



with a certificate curriculum and now offers a bachelor's degree and a minor, focused on giving students the requisite skills to succeed in the clinical research job environment. Duke CTSI has partnered with NCCU to help develop these curricula and to provide didactic enhancements (e.g., Translational Research Concepts and Careers online modules) and handson training opportunities to complement the programs' offerings.

An outgrowth of this collaboration is the <u>Duke-NCCU Bridge Office</u>, which aims to further strengthen ties between the two academic institutions in a strategic effort to improve health outcomes, create pipeline programs to diversify the future clinical research sciences workforce, build new research teams, and expand infrastructure to support underrepresented minority researchers.

Funding opportunities:

- 1. CRSP tuition scholarships: 5 full tuition-only scholarships at \$9,500 a year for 4 years, totaling \$190,000 (does not include room and board)
- 2. Stipends for paid internships to provide supplemental experiential opportunities: 5 internships at \$20 per hour/40 hours weekly for 10 weeks in the summer, totaling \$40,000/year for 3 summers = \$120,000 (in kind donation paid directly to the intern)
- 3. Funding to build out a 4 + 1 Bachelor of Science to Masters in Clinical Research Program at UNC-Chapel Hill: \$50,000 for 1 FTE to coordinate activities and plan curriculum
- 4. Funding to build out a program in the model of the Fisk-Vanderbilt Masters-to-PhD Bridge Program: \$60,000 for 1 FTE to coordinate activities and plan curriculum
- 5. Infrastructure support for the Duke-NCCU Bridge Office to enhance training pathways between the two institutions: Support for 2 FTEs to continue to build on the Duke-NCCU partnership (\$150,000)

Integrated Duke-NCCU Neuroscience Training Pathway: Dr. Kafui Dzirasa, a pioneering Duke neuroscientist and psychiatrist, has expanded his NIH-funded translational research laboratory to NCCU in collaboration with Dr. Tracie Locklear, Dr. S. Alex Marshall, and the CTSI Workforce Development Group. Dr. Locklear coordinates the Clinical Research Sciences Program at NCCU, and Dr. Marshall co-leads a recently awarded NIMH R25 training grant focused on creating a neuroscience fellowship that will expand and enhance peer and traditional mentor relationships and diversity the neuroscience curriculum at NCCU. Together, these investigators are instituting a new training pathway that invests in NCCU undergrads seeking careers in neuroscience-based research and clinical care. Students in this training pathway receive competitive pay, intensive mentoring, and ultimately assistance with career/job placement. Sponsorship could help to fund student stipends, mentoring activities, and laboratory updates and overhead.

The Duke-Durham Tech Clinical Research Equity Scholars Program: Durham Technical Community College has been providing practical training in clinical research since 1998. Serving a 70% minority student population, the Durham Tech



clinical research programs serve as a stepping stone for students from underserved populations to start a career path through its 2-year associate's degree and 1-year certificate programs. The <u>Clinical Research Equity Scholars Program</u> is a partnership between the Duke CTSI and Durham Technical Community College to offer clinical research students a hands-on role in addressing the critical need to increase diversity in clinical research. This two-semester program trains

students on key strategies to engage with marginalized populations and incorporate equitable practices into the research process. Program components include: online and classroom training, group discussions with principal investigators and research staff, developing strategies to increase diversity in clinical trials, patient and community engagement, and a capstone project.

Funding opportunities:

- 1. Scholar stipends (\$750 per student) to support 5 scholars for 2 years (\$7,500 total)
- 2. Sponsored 12-month post-program internship for advanced training in clinical research equity, \$17/hr, 40hs/week (\$35,360)
- 3. Scholarships to support scholar transition to a 4-year degree program (\$10,000 for 2 years, \$20,000 total)
- 4. Funding to create portable curriculum for adaptation within industry settings (\$25,000 to hire 0.5 FTE for curriculum development)

CTSI Workforce Development (WFD) Lab: To promote workforce development scholarship and the science of workforce development, the CTSI proposes to establish a WFD Lab, the purpose of which will be to design, organize, implement, and disseminate workforce development innovations, with a special focus on those enhancing diverse representation in the scientific workforce. The Lab will house a writing hub and a data science/informatics hub to assist Duke and NCCU faculty, staff, and trainees with activities such as the preparation of NIH diversity supplement funding applications and other training-related grants, analysis of data emanating from WFD-based pilots and projects, and development of manuscripts describing innovations in the WFD domain. The WFD Lab will also house curricular design, IT, and evaluation experts to assist in the development, implementation, and evaluation of WFD training resources across a broad swath of the Duke and NCCU communities.

Funding opportunities:

- 1. Lab naming rights: \$1,000,000
- 2. Infrastructure support: \$100,000-200,000 (2-3 staff FTEs)
- 3. Pre-paid vouchers to subsidize use of Lab services (writing, data analysis, curricular design, etc.): \$1000-5000
- 4. Funding for a "shark tank-style" competition for seed funding of WFD innovation projects: \$5000-25,000 per award with 3 awards/year
- 5. Funding internship spots in science labs for a named fellowship with your company's branding (\$156,000 for 5 x part time, 2 year fellowships)

OTHER OPPORTUNITIES

Duke Scholars in Molecular Medicine (DSMM): This innovative nine-month program (September to May) is designed to enrich the training of pre- and postdoctoral biomedical trainees across Duke University. Noting that many trainees are disconnected from the actual problems faced by patients and physicians, DSMM was started in 2008 with the vision of training biomedical scientists who are rigorously trained in basic science while also being acutely aware of the unmet clinical needs in medicine. The goal of the program is to develop investigators who are uniquely poised and motivated to partner with clinicians to find innovative



solutions to contemporary problems in the U.S. and around the globe. DSMM comprises four tracks based on clinical strengths at the Duke School of Medicine and represent the National Institutes of Health's central pillars of human morbidity and mortality. Each track enables 4–10 scholars to participate in clinical rounds, journal clubs about clinical trials, clinical conferences, and special interactive sessions with guest faculty.

Funding opportunities:

- 1. Infrastructure support
- 2. Travel scholarships for participants to attend national academic meetings
- 3. Support to develop a translational science certificate program
- 4. Scholarships to support trainee stipends

Office of Physician-Scientist Development (OPSD): Established in 2018, Duke OPSD serves as a central resource to leverage and extend access to research and career support programs across the School of Medicine. Physician-scientists are uniquely positioned to conduct clinically relevant research to improve human health; yet, only 1.5% of physicians engage in research (a two-thirds decline in the last 30 years). OPSD recognizes the challenges to physicians pursuing research careers—lack of knowledge about the dual career path; medical school debt burden; length of medical specialty training; and limited, highly competitive research funding resources. To address these challenges, OPSD provides career mentorship, integrated research training, scholarships and research support, and education and professional development—working toward our mission: empowering physician-scientists to launch successful research careers. OPSD has been funded by a Burroughs Wellcome Fund Physician-Scientist Institutional Award and institutional support from the Dean and Department Chairs. Our centralized program has been key to recruitment successes for residents, fellows, and junior faculty physician-scientists—and is now being replicated at multiple academic medical centers. With our early successes, OPSD seeks to diversify its sources of programmatic and infrastructure support to sustain these efforts in the long-term, ultimately transforming the future of medicine with a new generation of physician-scientists.

Philanthropic opportunities to support the next generation of transformative physician-scientist leaders:

	Program Naming Opportunity	Scholar Naming Opportunity
Duke Office of Physician-Scientist Development	\$10 M	n/a
Strong Start Junior Faculty Physician-Scientist Awards	\$2 M	\$500k-\$1 M
Research in Residency Awards	\$1.5 M	\$300k
Medical Student Scholarships	\$2 M	\$300k
PRIME Scholars (Underrepresented Minority Undergraduate, Post-Baccalaureate and Non-Duke Medical Student Research Experiences)	\$1 M	\$250k

National Clinician Scholars Program (NCSP) at Duke: The NCSP aims to offer unparalleled training for clinicians as change agents driving policy-relevant research and partnerships to improve health and health care. The goal of the program is to cultivate health equity, eliminate health disparities, invent new models of care, and achieve higher quality health care at lower cost by training nurse and physician researchers who work as leaders and collaborators embedded in communities, healthcare systems, government, foundations, and think tanks in the United States and around the world.

Duke University joined the program consortium in 2019, with a goal to train inter-professional clinician scholars in datadriven inquiry, policy-impactful and rigorous investigation, sensitive community-based participatory research, and transformation of health care practice. Four central pillars undergird the program:

- diverse and experienced program leadership;
- a deep bench of dedicated and successful mentors;
- a comprehensive didactic research and professional development training program;
- and a broad range of mentored research and policy training opportunities, including direct engagement with community partners and community organizations.



Specifically, the Duke NCSP focuses on community-based research, health services research, health policy, and implementation science across a broad range of disciplines. Scholars build expertise in these disciplines because they are critical both to improving health care access, equity, quality, and outcomes and to identifying and implementing effective health care policies.

Funding opportunities:

- 1. Infrastructure support
- 2. Sponsorship of fellowship slots within specific disciplines or areas of focus:
 - a. Two-year fellowship for a non-VA scholar: approx. \$288,000 (includes tuition costs)
 - b. Two-year fellowship for a VA scholar: approx. \$248,000 (includes tuition costs)
- 3. Tuition support for fellows pursuing an optional master's degree approx. \$45,000 for 2-year degree