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Title of Initiative: NIMHD Minority Health and Health Disparities Research Training (MHRT; T37) Program

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Objective: The Minority Health and Health Disparities Research Training (MHRT) T37 program supports research education and training opportunities in minority health and health disparities research for individuals from diverse backgrounds, including those underrepresented in biomedical, behavioral and social sciences, and clinical research. The training programs will provide minority health and health disparities research opportunities for postdocs, residents, and trainees at the graduate and undergraduate levels. The awards support training at domestic academic institutions and at low- and middle-income (LMIC) countries.

Background: Published reports from the Association of American Medical Colleges, the National Academy of Sciences (NAS), the American Federation for Medical Research, the National Science Foundation, and others provide evidence that there is a need for a biomedical workforce to achieve the mission of improving the health of diverse U.S. populations that include people who are Black and African American, Latino and Hispanic, American Indian and Alaska Native, and Native Hawaiian and Pacific Islander. These racial and ethnic minority groups are underrepresented in biomedical sciences which necessitates the recruitment of diverse qualified persons to varied health careers. Therefore, there is a compelling need for the continuation of the MHRT- T37 program.

The goals of the MHRT-T37 program are to:

(1) complement and/or enhance the training of individuals from diverse backgrounds, including those underrepresented within the biomedical, behavioral and social sciences, and clinical research workforce, and

(2) help recruit individuals with diverse academic specialties or disciplines into minority health and health disparities research careers.

To accomplish these goals, creative educational activities are needed to provide minority health and health disparities research experiences for graduate and undergraduate students, postdoctoral researchers, residents, and fellows. Research experience can include clinical, translational, and/or population health research addressing diseases and conditions disproportionately impacting diverse populations experiencing health disparities. The MHRT-T37 program is open to students across the

United States, not just academic schools and institutions that received an NIH grant. Each site that receives a MHRT-T37 grant is required to include information about the program on their website, including an overview of the program, instructions on how to apply, requirements for acceptance, and staff to contact for more information.

Current Measures of MHRT-T37 Program Outcomes: The NAS calls on federal agencies and academic institutions to periodically assess how their training programs are enhancing the racial and ethnic diversity of the trainee population. We evaluated the distribution of trainees by diversity and education level from the ongoing 12 funded programs with data from 2019 to 2021. The recruited trainees (N=149) by race and ethnicity showed 42% African American, 22% Latino and Hispanic, 16% Asian American 8% non-Hispanic White, 6% Native Hawaiian and Pacific Islander, and 4% American Indian/Alaska Native. The distribution by education level showed Asian American and Native Hawaiians and Pacific Islander individuals were recruited more often at the undergraduate level, Black and African American individuals at the master's level, and non-Hispanic White and Latino and Hispanic individuals at the doctoral level. These results show that the funded programs are recruiting trainees at all levels of education and racial groups that align with the program's goals.

Proposed Program Renewal: The MHRT-T37 program will provide up to five years of support. Approximately, 10 to 12 trainees at each grantee institution will be supported for a minimum period of 10 to 12 weeks in a grant year for full-time training experiences under the supervision of experienced researchers.

Trainee Recruitment: Within the MHRT-T37 program framework, program managers must give attention to recruiting and retaining trainees from racial or ethnic groups underrepresented in the biomedical, behavioral and social sciences, and clinical research, individuals from socially disadvantaged backgrounds, underserved rural residents, and sexual and gender minorities.

Training Mentors: Trainees should be mentored by program directors (PD) and principal investigators (PI) with active research careers. They should also have opportunities to learn about advanced research training opportunities and research career options. Training grants provided through the MHRT-T37 program are intended to introduce trainees to research that would not otherwise be available through their regular course of study. The research experiences should be tailored to the trainees' development needs to meet his or her training goals. PDs and PIs are encouraged to develop research training programs that expose trainees to diverse scientific approaches, systems for study, research methods, tools and technologies. Consideration of team-based research approaches may also be warranted, depending on the goals of the proposed training program.

Eligible training sites include domestic U.S. institutions or at LMIC countries, such as Latin America (Mexico, Central, and South America), the Caribbean, and Sub-Saharan Africa. The duration of training, the transition of trainees to individual support mechanisms, and their transition to the next career stage are important considerations in MHRT-T37 programs. Training program administrators should provide Individual Development Planning and structured career development advising and learning opportunities (e.g., workshops, discussions, and support presenting and publishing their research findings). Programs should enhance trainees' ability to conceptualize and think through research problems with increasing independence. Upon completion of the program, trainees should have a strong foundation in research design, methods, and analytic techniques appropriate for their proposed research area. The training program should be of sufficient depth to the principles underlying the responsible conduct of research.

Description of Special Areas of Research Interest: Training is not intended, and may not be used, to support activities that would ordinarily be part of a research degree program; residency training of physicians or other health professionals; activities for which the existing Ruth L. Kirschstein National Research Service Award (NRSA) support is provided under 42 USC 288; or for compensation for employment or the performance of personal services by individuals receiving training and instruction.

Areas of specific interest include but are not limited to the following:

- Development and tailoring of screening, diagnostic, and therapeutic healthcare interventions that can contribute to improving racial and ethnic minority population health and reducing health disparities.
- Population-level gene-environment interaction studies
- Behavioral, sociocultural, and environmental influences on disease risks and outcomes.
- Epidemiological, behavioral, social applied, and surveillance research to understand the impact of social determinants on community health and population well-being.
- Integrating the multiple determinants of health at the biological, behavioral, and contextual levels and their interactions.
- Informing and establishing community- and population-level and public health practices that improve health and reduce health disparities.
- Research in clinical settings that address access, quality, and cost of healthcare, patient safety, the impact of health information technology on coordination and quality of care, shared decision-making on patient satisfaction and health outcomes, and patient-clinician communication.
- Mechanisms through which genomic and epigenomic risk and protective factors influence the development of adverse health conditions.

- Effects of chronic stress on physiological functioning (i.e., allostatic load) across the life course.
- Mechanisms through which behavioral risk and protective factors influence the development of adverse health conditions.
- Individual-level strategies and interpersonal relationships for coping with adversity and chronic stress.
- Impact of discrimination on health behavior and strategies to ameliorate the effects.
- Mechanisms underlying health literacy and health numeracy and their influence on health-seeking or health-harming behaviors.