RCMI TRANSLATIONAL RESEARCH NETWORK (RTRN) – A COLLABORATIVE ENVIRONMENT TO ADDRESS HEALTH DISPARITIES AND BIOTERRORISM

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Abstract: Health disparities primarily affect minority and underserved populations in the United States which has classically been approached by competitive, single-site, single-principal investigator (PI), “silo science”. To better address this critical national issue, the Research Centers in Minority Institutions Translational Research Network (RTRN) was created in 2007 as a consortium of basic, behavioral, clinical and translational researchers in 18 RCMI Centers across the US, working in collaboration with investigators from other academic health centers, community health providers, and the public. The mission is to produce tangible health benefits for ethnically diverse and medically underserved populations across the country through a translational research network aimed at reducing health disparities by conducting multi-site research supported by a data and technology coordinating center (DTCC). This new model of collaborative, multi-disciplinary, multi-site, multi-PI, team science has provided a unique infrastructure that leverages the expertise and institutional resources within the RCMI community. A system of research clusters was created which links collaborating members within cyber workspaces that focus on several key areas including Genes & Environmental Health/Toxicology (G&EH/T), Cardiovascular diseases, Cancer, and Infectious & Immunological Diseases. The G&EH/T Cluster is led by Dr. Paul Tchounwou (Jackson State University) and Dr. Barbara Hayes (Texas Southern University) who guide the cluster in its objectives to (1) promote understanding of links between genetics and environmental (G&E) factors on disease, disorders and conditions in minorities, (2) facilitate cross cluster collaborations on the role of G&E factors on neurological, cardiovascular and immunological diseases, and (3) supported by RTRN DTCC, develop additional multi-site projects that capitalize on emerging technologic advances and unique resources. With these objectives the Cluster is poised to address our Nation’s preparedness to prevent, respond to, and recover from any major health incident whether it be from disease outbreaks, natural disasters, or terrorist attacks. Ensuring the national health security means evaluating racial/ethnic differences as surrogate markers for describing risk on a genomic level which is vital to the understanding of populations at risk for health disparities and susceptibility to bioterrorism exposure. As a collaborative network, RTRN is a cost-effective, efficient research model that is capable of ensuring timely communications and the prevention or mitigation of emerging threats to health via a system that supports national health security based on the best available science & technology. This model should shorten the time from discovery of genetic variations as risk factors for health disparity diseases & modifier factors such as environmental exposures that could be associated with biological and chemical terrorism.

Key words: Research network, health disparities, collaboration, bioterrorism.

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