Underrepresented Minority Clinician Scientists-The Missing Link in Health Equity

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Associate Dean, Clinical Research
Professor of Medicine and Chief of Cardiology

et al. Circulation 2012;125:e2-e220
Preventable Hospitalizations in High-Risk Neighborhoods

6-fold higher admissions for hypertension.
8-fold higher admissions for diabetes.
3-fold higher stroke admissions relative to rest of Atlanta

SK Davis, R Quarells, V Welch; MSM
Research Centers in Minority Institutions (RCMI)

RCMI program serves the dual purpose of bringing more racial and ethnic minority scientists into mainstream research and promoting minority health research because many of the investigators at the 18 national RCMI institutions study diseases that disproportionately affect minority populations.

- RCMI Centers
- RCMI Infrastructure for Clinical and Translational Research (RCTR)
- Clinical Research Education and Career Development (CRECD)
- RCMI Translational Research Network (RTRN)
Sutton’s Law and Pipeline Programs: Targeting Research Training Programs at Historically Black Educational Institutions

- @ 140 Black bioscience PhDs/year (SF)
- Atlanta University Center (AUC)-The largest contiguous consortium of African American higher education.
- The AUC produced more Black PhD recipients (‘02–’06) than Harvard, UPENN, Yale, Brown, Stanford, UMICH combined.

MSM K-12 Pipeline Programs:
- Ben Carson Academy (4th-8th graders)
- Vivien Thomas Summer Research Program (high school).
MSM RCMI Center of Clinical Research Excellence: Nurturing MSM’s Future – Young Clinical Investigators

Clinical Depts | Basic Depts | Research Centers/Institutes

Masters of Science in Clinical Research Scholars

CCRE CAREER DEVELOPMENT CORE

Mentorship Teams

Developmental Projects

Program Review

MINORITY CLINICAL INVESTIGATORS

Mentorship Network

UGa | Emory | UAB

Harvard | CDC | Jackson Heart

CCRE Cores

Subject Coordination

Reparative Biomedicine

Omics

Clinical Research Center

Biostatistics
Master of Science in Clinical Research (MSCR): 2002-2011

29 Graduates

Race/Ethnicity: 28 minority
24 African-American; 4 Asian; 1 white
Gender: 23 female; 6 male

MSCR students and mentors
P. Pemu, MD, MSCR
Obesity/metabolism
D. Harp, MD, MSCR
Oncofertility
G. Westney, MD, MSCR
Immune response in sarcoidosis
Baraka Floyd, MD/MSCR 2010:
Stanford University Pediatrics Residency;
Self monitoring blood glucose
Kisha Holden, PhD, MSCR (2012)
Resiliency in African American Women with depression

Predoctoral trainees
Kateena Johnson (Candidate: MD/MSCR/PhD)

• Recipient of the UNCF/MERCK Doctoral Dissertation Awards (2012)
• American Medical Association Seed Grant (2012)
• Nef Proteins and HIV/AIDS
MSM Ph.D. Program in Biomedical Sciences

Student Population

• 30 PhD students currently enrolled
• 11 males, 16 females
• 21 BA /BS; 9 MS on entry
• From 24 US Colleges & Universities

- Clarion University
- Clark-Atlanta University
- Florida A&M University
- Grambling University
- Georgia State University
- Hampton University
- Jackson State University
- Long Island University
- Massachusetts Institute of Technology
- Medgar Evers College, CUNY
- Morehouse College
- Morgan State University
- Morris Brown College
- Notre Dame University
- Rensselaer Polytechnic Institute
- Rochester Institute of Technology
- Rust College
- Spelman College
- State Univ. NY, Albany
- State Univ NY, Stony Book
- Tennessee State University
- University of Virginia
- Wright State University
- Xavier University
Early Alterations of the Immune Transcriptome in Cultured Progenitor Cells From Obese African-American Women
Priscilla E. Pemu1, Leonard Anderson2, Beatrice E. Gee2, Elizabeth O. Ofili1 and Sujoy Ghosh3

Socio-demographic psychosocial and clinical characteristics of participants in e-HealthyStrides©: an interactive ehealth program to improve diabetes self-management skills.
Pemu PE, Quarshie AQ, Josiah-Willock R, Ojutalayo FO, Alema-Mensah E, Ofili EO.
J Health Care Poor Underserved. 2011;22(4 Suppl):146-64. PMID: 22102311
e-Healthystrides: Active Partners for Better Health

Morehouse School of Medicine

Research Team
Programmers/Trainers

PINNACLE Registry

Patient Reported Data, Labs & Device Readings

MSM Physician

Churches
Health Coach/Navigator

Training and Social Network (Beneficiaries and Coaches)

Medicare Beneficiary

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Incidence of Community Onset MRSA in the 20 county Metropolitan Statistical Area (MSA) of Atlanta, 2006

L. Immergluck, MD; Pediatrican
Faculty Mentors: B. Gee, MD, J. Hibbert, Ph.D., T. Adamkiewicz, MD, A. Quarshie, MD, MS, I. Buchannan, MD
Departments: MBI, Pediatrics, Family Medicine, CHPM
Funding: FIC/NHGRI (2006)
Training: Fellows/Institutions: Ghana (1), Nigeria (2), Tunisia (1)
Malaria Research (Cerebral Malaria)

- 3.3 billion people (half the world’s population) are at risk of malaria transmission in 109 countries and territories (CDC Malaria Fact sheet 2012)

- Thirty-five countries (30 in sub-Saharan Africa and 5 in Asia) account for 98% of global malaria deaths. (CDC Malaria Fact Sheet 2012)

- Malaria caused 190 - 311 million clinical episodes and 708,000 - 1,003,000 deaths (WHO 2008)

MSM Research Areas
- Immunopathogenesis of cerebral malaria
- Biomarkers of fatal cerebral malaria

http://www.cdc.gov/malaria/about/facts.html
Minority Institutions and Translational Research: Partnerships Integrating Training, Science and Community Service

- Community
- MSM
- Caring
- Passion
- Scientific Excellence
- Bench
- Bedside
- Curbside
- Trust

BM 1996
Health Equity and a Time for Change: A Key Role for the Historic Mission of Minority Institutions

• Taking Research Infrastructure to the Underserved
  – Applying new technologies in Minority Communities
  – Community-based Interventions; Local Community Clinic Partners
  – Biomedical Informatics Infrastructure for Networking
    • Local, Regional, National

• An Inclusive National C/T Research Network
  – Linking RCMI-IDEA-CTSA C/T networks, biorepositories and resource

◆ Diversifying Biomedical Science: Addressing the Gap and Unmet Need

◆ Building training capacity at historically Black institutions, Hispanic, Native American and Tribal Colleges, with a legacy and sustained commitment to expanding the diversity of the biomedical workforce.

◆ New Sustainable models of career development
#1 in Social Mission among US medical schools (Annals of Internal Medicine, June 2010)

www.msm.edu

Thank you!!!!