OVERVIEW OF THE DEPARTMENT

The Institute comprises 3 units on the Mona campus: Epidemiology Research Unit (ERU), Sickle Cell Unit (SCU) and Tropical Metabolism Research Unit (TMRU), and the Chronic Disease Research Centre (CDRC) at Cave Hill. This report covers the Mona units with the report for CDRC submitted to the Cave Hill Principal. The TMRI contributes substantially to the 2012–2017 Strategic Objectives of the UWI with key areas being Research and Innovation, Graduate Studies and Income source diversification.

ACADEMIC PROGRAMMES

The Institute offers Masters and doctoral programmes in Nutrition and in Epidemiology. We also coordinate the nutrition module for the

TROPICAL MEDICINE RESEARCH INSTITUTE

Professor Susan Walker, BSc Bristol, MSc, PhD Lond
Director
MBBS programme and staff taught on several other courses within the MBBS as well as the MPH programme. We continue training and mentorship at the doctoral and post-doctoral levels through research fellowships within the TMRI and in collaboration with the Faculty of Medical Sciences, Mona. The goal of the FMS fellowships is to strengthen research capacity within FMS departments and build collaborations. The fellowships allow two-year placement of FMS faculty in the TMRI for training in research with the objective of conducting and publishing a research project during the fellowship. Staff at TMRI also contribute to research supervision of DM students in various FMS departments.

**CLINICAL SERVICE**

The Institute provides significant outreach to communities through clinical service. The Sickle Cell Unit operates the only comprehensive facility for the care of persons with Sickle Cell Disease (SCD) in the English speaking Caribbean, as well as monthly clinics in Black River and Montego Bay Sickle Cell Clinic. The SCU also operates neonatal screening for the South East region with discussions underway with the Ministry of Health to provide training and technical support for island-wide screening. This summer, the Sickle Cell Unit ran the inaugural Teen Camp for children with SCD, increasing their knowledge of the disease and ability to cope with living with a chronic disease. The TMRU provides in-patient care for children with severe under-nutrition, and subject volunteers of various clinical trials and experimental studies, and provides a nutritional consultative service to hospitalized patients across the island. Staff from all three units provide specialist clinical services to the UHWI serving in several outpatient clinics such as internal medicine, hypertension, diabetes, endocrinology and pulmonology.

**RESEARCH AND PUBLICATIONS**

The Institute continues to review its research programmes through annual scientific meetings. Current research programmes are Human
Nutrition and Metabolism, Endocrinology, Genetic underpinnings of disease susceptibility and severity, Sickle Cell Disease, Child Development, Chronic Non-Communicable Diseases – Surveillance, Epidemiology and Interventions, Inflammation and Wound healing.

Collaboration across units and research programmes continues to grow with collaboration on disparities research and cardiovascular disease between the CDRC and ERU; between the child development programme and the chronic disease programme (ERU) and the Sickle Cell research programme; between the Sickle cell programme and metabolism programme at TMRU. Presentations and publications for the academic year are listed below.

Expertise in systematic reviews continues to expand and the Caribbean Branch of the USA Cochrane Collaborating Centre (CBUSCC) was launched in June 2013, a significant achievement for UWI and the region.

Staff of the institute obtains grant funds to support research from a variety of agencies. More needs to be achieved and will require increased staff capacity to obtain grant funds, through training in writing grant proposals and expansion of collaborative arrangements. These initiatives are critical to the UWI Strategic Objective related to Income source diversification and support for staff training in this area as well as more robust central grant administration support is essential.

PUBLIC SERVICE

Staff members contribute leadership in numerous professional organisations and provide technical advice to the Ministries of Health and Education. Several staff members also serve on committees in national and regional institutions and international agencies. Details are listed under Public service below.

Asnani M, Anderson M. “Jamaicans living with sickle cell disease: What do they know about SCD.” 58th Annual scientific Meeting of the Caribbean Public Health Agency; Barbados, May 2–4, 2013.

Asnani M. “Sickle Cell Disease in Jamaica.” School of Public Health Nursing, University of Technology workshop: A Transition in the Non-Communicable Diseases in the Caribbean through Health Promotion, April 11, 2013, Kingston.

Asnani M, Reid M. “Chronic Kidney Disease and Sickle Cell Disease in Jamaica.” 5th Caribbean Institute of Nephrology Conference; January 24–26, 2013, Montego Bay.

Asnani M, Reid M. “Determining Glomerular Filtration Rate in sickle cell disease.” 5th Caribbean Institute of Nephrology Conference; January 24–26, 2013, Montego Bay.

Asnani M, Reid M. “Glomerular Filtration Rate estimating equations in SS disease.” 58th Annual Scientific Meeting of the Caribbean Public Health Agency; May 2–4, 2013, Barbados.


• Boyne M. “Facebook, Twitter and doctors: good medicine? FMS 21st Annual Research Conference – Grey Matters” The Faculty of Medical Sciences Research Day November 4; The University of the West Indies, Mona, 2012.

• Boyne M. “Metabolic syndrome and diabetes in the West Indies.” The 2nd Global Diabetes Summ; November 15, 2012, Ohio State University; Columbus, Ohio.


• Boyne M. “Primary prevention of obesity.” 2nd Caribbean Obesity Forum; March 2, 2013; Montego Bay, Jamaica.


• Francis D, Tulloch-Reid M. “Utilizing Evidence to address the chronic disease epidemic – bringing research, clinical practice and policy together.” The Faculty of Medical Sciences Research Day, The University of the West Indies, Mona; 2012.
• Francis D, Welch V, Kristjansson E. “Feeding programmes for improving the physical and psychosocial health of children aged 6 months to 5 years: Methodological challenges and approaches.” The Annual Campbell Colloquium; Copenhagen, 2012.


• Knight-Madden J. “Sickle cell disease and the dengue epidemics in the French West Indies and Jamaica.” 3rd Conférence Caribéenne sur la drépanocytose May, 2013, Cuba.

• Knight-Madden J, Barton-Gooden A, Weaver S, Reid M, Greenough A. “Mortality, asthma, smoking and acute chest syndrome in young adults with sickle cell disease.” The Faculty of Medical Sciences Research Day, The University of the West Indies, Mona, 2012.


• Mani K, Hoo Sang M, Younger-Coleman N, Ferguson T. “Ischaemic heart disease at the University Hospital of the West Indies: hospital admission rates and inpatient mortality rates, 2005–2010.” The Faculty of Medical Sciences Research Day November; The University of the West Indies, Mona, 2012.


• Orimoloye A, Hurlock L, Ferguson T, Lee M. “A study of energy drinks consumption among the students of the University of the West Indies, Mona, Jamaica.” The Faculty of Medical Sciences Research Day November, The University of the West Indies, Mona; 2012.


• Tulloch-Reid M. “Dyslipidemia in 2012”. Vanderbilt University School of Medicine and The Heart Institute of the Caribbean Advances in Cardiovascular Care, Jamaica Conference Centre, December 6–8, 2012.


• Walker S. “Perspectives on investing in young children’s health, education, nutrition & social protection.” Investing in Young Children Globally, Institute of Medicine; March 7–8, 2013, Washington DC.

• Walker S. “Promoting young child development: The role of the health sector” 58th Annual Scientific Meeting of the Caribbean Public Health Agency; May 2–4, 2013, Barbados.

• Wilks R. “The Epidemic of Non-Communicable Diseases ‘Moving


- Wilks R. “Hypertension Update” University Health Services (UHS) Seminar; August 30, 2012. UWI Health Centre.

- Wilks R. “Overview of the Risk factors and Non-Communicable Disease Epidemic in the Caribbean “Faculty of Medical Sciences 21st Annual Research Conference and Workshop November 7–9, 2012. The University of the West Indies, Mona.

- Wilks R. “Chronic Non-Communicable Diseases; Alternate Paradigms for Inquiry and Intervention.” William Bill Dennis Memorial Lecture July 18, 2013. Faculty of Medical Sciences, UWI.

- Wilks R. “Epidemiology of Hypertension in Jamaica.” Advancements in Medicine and Healthcare April 26–27, 2013. Department of Medicine, Faculty of Medical Sciences, UWI.

- Wilks R. “Facing CNCD Epidemic in Developing Countries: Community Based Participation Research (CBPR).” 58th Annual Scientific Meeting of the Caribbean Public Health Agency; May 2–4, 2013, Barbados.

PUBLICATIONS

Book Chapter

Refereed Journal Articles


• Ragin C, Davis-Reyes B, Tadesse H, Daniels D, Bunker CH, Jackson


**Non-refereed Articles**


- Mayosi BM, **Forrester T**. “Commentary: ‘serum-cholesterol, diet, and coronary heart-disease in Africans and Asians in Uganda’ by AG Shaper and KW Jones.” *The International Journal of Epidemiology* 2012;41(5):1233-


- **Walker S, Chang S**. “Effectiveness of parent support programmes in
enhancing learning in the under-3 age group.” *Early Childhood Matters* 2013;120:45–9.

**Technical Reports**


**Systematic Reviews/Protocols**


**INCOME GENERATION**

Title: Management of Severe Acute Malnutrition during Early Life; Addressing Nutritional Requirements by Stable Isotope Techniques.

Funding Agency: IAEA
Contract No: 15268
Principal Investigator Asha Badaloo
Period of Award: September 2008–September 2012
Value: €60000.00

Title: Glutathione homeostasis and oxidant damage in kwashiorkor: Role of sulphur amino acids in GSH deficiency childhood malnutrition.
Funding Agency: NIH
Contract No: 5R01 DK056689
Principal Investigator: Terrence Forrester
Period of Award: 2008–2013
Value: US$1,125,000

Title: Variation in Severity of Sickle Cell Disease among the Yoruba
Funding Agency: FIC/NIH
Contract No: 1R03TW008695-01A1
Investigators Marvin Reid Colin McKenzie
Period of Award: 07/01/2011 – 06/30/2014
Value: USD$96,000.00

Title: Genetics of Hypertension in Blacks
Funding Agency: NIH/NHLBI f
Contract No: 2R01HL053353-12A1
Principal Investigator Richard Cooper, Colin McKenzie (consultant)
Period of Award: 06/15/2009-04/30/2014
Value: USD$1,000,000.00
Title: **Utility of Cystatin-C estimating equations in determining glomerular filtration rate in Sickle Cell Disease**

Funding Agency: Caribbean Health Research Council  
Principal Investigator Monika Asnani  
Period of Award: September 2011–August 2013  
Value: US$ 10,000.00

Title: **Shaw in Jamaica Project**  
Funding Agency: National Institutes of Health  
Principal Investigator: William Aiken, Co-Investigators: Shelly McFarlane, Novie Younger  
Period of Award: 2012–2013  
USD$75,261.00

Title: **USA-Caribbean Alliance for Health Disparities Research (USCAHDR)**  
Duration: 2011–2016  
Co-investigator Professor Rainford Wilks  
Funding Agency: National Institute on Minority Health and Health Disparities Cooperative Agreement No.1U24MD006959-01, NIH – US$4,799,063.00

Title: **New Approaches for Empowering Studies of Asthma in Populations of African Descent**  
Funding Agency: NHLBI, HL104608-01  
Principal Investigator: Kathleen Barnes, John’s Hopkins University  
Key Investigator/Consultant: Jennifer Knight-Madden  
Value: USD$1,706,590
Title: Know-it study: An educational intervention to improve disease knowledge among adolescents with Sickle Cell Disease

Funding Agency: University of the West Indies, Principal’s awards
Principal Investigator: Antoinette Barton-Gooden, UWISON
Co-investigators: Jennifer Knight-Madden, Monika Asnani, Marilyn Grindley
Value: $1,500,000.00

Title: The association of cortisol awakening response with blood pressure and adiposity in Caribbean children

Funding Agency: Caribbean Health Research Council
Principal Investigator: Michael Boyne
Period of Award: July 2012–December 2013
Value: US $2,850.00

Title: Efficacy of combination therapy-hydroxyurea and enalapril in slowing the progression of sickle nephropathy in children ECP 127, 10/11

Funding Agency: Caribbean Health Research Council
Principal Investigator: Lesley King
Period of Award: 2012–2013
Value: US $10,000.00

Title: Effects of β-hydroxy-β-butyrate supplementation and resistance exercise on strength and body composition in Sickle Cell Anaemia

Funding Agency: Caribbean Public Health Agency (CARPHA) formerly CHRC
Principal Investigator: Marvin Reid
Period of Award: May 2013 – April 2014
Value: US $10,000.00
Title: Parenting and growth in Caribbean Children
Funding Agency: Harvard Pilgrim Health Centre
Principal Investigator: Marshall Tulloch-Reid
Period of Award: July 1 2012–June 30, 2013
Value: US $29,566.00

Title: Improvement health care in persons and preventing Stroke in persons with Sickle Cell Disease
Funding Agency: National Health Fund
Principal Investigator: Marvin Reid
Period of Award: July 1 2012–June 2015
Value: US $172,349.89

Title: Promoting young children’s social & emotional competence & preventing conduct problems: Follow-up of a cluster randomised controlled trial
Funding Agency: The Wellcome Trust
Principal Investigator I: Helen Henningham
Value: GBP351, 892.00

Title: Inter-Generational Impacts of Early Childhood Experience
Funding Agency: Inter-American Development Bank
Principal Investigator: Susan Walker
Period of Award: November 2010–October 2013
Value: US $150,000
Title: Pilot of parenting interventions in the Caribbean
Funding Agency: Inter-American Development Bank
Principal Investigator: Susan Walker
Period of Award: January 2011–December 2013
Value: US $750,000

PUBLIC SERVICE

Monika Asnani
– Caribbean Representative: Worldwide Initiative on Social Studies in Hemoglobinopathies (WiSSH) since 2011.
– Caribbean College of Family Physicians
– Honorary Secretary
– Co-Chair, CME Committee
– Member, Accreditation & Certification Committee
– Executive Committee Member, Indian Cultural Society in Jamaica

Asha Badaloo
– Voluntary Nutritional Consultant, Prema’s free medical clinic

Michael Boyne
– Member, Medical Association of Jamaica Ethics Committee
– President, Caribbean Endocrine Society
– Member, Board of Diabetes Association of Jamaica
– Member, National Health Fund Expert Panel of Physicians.

Susan Chang-Lopez
– Member, Research and Data Management Sub-committee, Early Childhood Commission (ECC).
Damian Francis  
– Nutrition and Dietetics Representative, Council for Professions Supplementary to Medicine  
– Member, Policy Committee, Caribbean Public Health Agency

Trevor Ferguson  
– Member, National Non-Communicable Disease Committee  
– Member, Editorial Board for *West Indian Medical Journal*  
– Member, Editorial Board, Frontiers in Diabetes  
– Member, National Ministerial Council, Bethel United Church of Jesus Christ (Apostolic).

Jennifer Knight-Madden  
– Member, Ministry of Health: Working group to discuss the ‘The Strategic Plan for Asthma/COPD’  
– Ministry of Health: Working group to implement islandwide neonatal screening for sickle cell disease.  
– Vice President, Caribbean Network of Researchers on Sickle Cell and Thalassemia (CAREST).

Shelly McFarlane  
– Member, Jamaica Statistical Society (JSS)  
– Observer on the International Diabetes Federation (IDF) Board.

Colin McKenzie  
– Director, NCB insurance Company Limited

Marvin Reid  
– Executive Member, Caribbean Network of Researchers on Sickle Cell and Thalassemia (CAREST)  
– Member, Global Network on Sickle Cell Disease  
– Executive Member, Medical Association of Jamaica with responsibility for Education and Planning of the annual MAJ symposium
– Chairman, Caribbean College of Family Physician Jamaica Chapter
– Executive Member, Rotary Club New Kingston.

Marshall Tulloch-Reid
– Member, Research Affairs Core Committee, The Endocrine Society
– Member, International Committee, and Health Disparities Committee, The American Association of Clinical Endocrinologists
– Consultant Physician and Endocrinologist, University Hospital of the West Indies
– Member, Education Committee, and Health Committee, Andrews Memorial SDA Church
– Examiner, Caribbean Certified Diabetes Educator (CCDE)
– Trainer / Facilitator, Pediatric and Adolescent Diabetes

Susan Walker
– Chair, Board of Trustees, Environmental Foundation of Jamaica Trust Fund
– Member, Advisory Committee on Health Research, Pan American Health Organization
– Member, Steering Committee, Global Child Development Group

Rainford Wilks
– Director, Heart Foundation of Jamaica
– Chairman, Medical Committee, St. Joseph’s Hospital
– Chairman, Gibson Relays Organizing Committee
– Commissioner, Jamaica Anti-Doing Commission; Member of the JADCO Technical Sub-committee
– Member and Co-Chairman for the Caribbean, PAHO/WHO Regional Expert Group on Cardiovascular Disease Prevention through Dietary salt Reduction
– Member, Wesley Parker Foundation
– Member, Technical working group advising the Ministry of Health on the Epidemiology of Violence
– Member, Technical working group advising the Ministry of Health on the Management of Hypertension and Diabetes Mellitus
– Member, Ministry of Agriculture and Fisheries National Food and Nutrition Security Action Plan Group
– Member, EU-LAC Health Expert on Prevention of Diseases and Promotion of Well Being Committee