

TROPICAL MEDICINE RESEARCH INSTITUTE



Professor Susan Walker, BSc *Bristol*, MSc, PhD *Lond*
Director

OVERVIEW OF THE DEPARTMENT

The Institute comprises the Epidemiology Research Unit (ERU), Sickle Cell Unit (SCU) and Tropical Metabolism Research Unit (TMRU) on the Mona campus, and the Chronic Disease Research Centre (CDRC) on the Cave Hill Campus. This report covers the Mona units with the report for CDRC submitted to the Cave Hill Principal. The primary goal of the TMRI is to conduct globally relevant research of internationally recognised quality that addresses health priorities of the Caribbean region. The TMRI continues to contribute substantially to the 2012–17 Strategic Objectives of the UWI with key areas being Research and Innovation, Graduate Studies, income source diversification and Outreach through Clinical services.

GRADUATE STUDIES AND OTHER ACADEMIC PROGRAMMES

The Institute offers Masters and Doctoral Programmes in Nutrition and in Epidemiology. In the 2014–15 Academic Year, the MSc in Nutrition was offered and the MSc in Epidemiology will be offered in the coming year. Recent graduates from these programmes have been employed by regional Ministries of Health, the private sector, Caribbean Public Health Agency (CARPHA), and in tertiary education and research.

We teach the nutrition module for the MBBS programme and also collaborate with the Department of Community Medicine and Psychiatry to teach the 3rd year MBBS and Dentistry students the ‘Understanding Research’ module. TMRI staff also teach research methods, epidemiology and statistics on several other courses within the MPH, DrPH, MSc Forensic Science and BSc Physiotherapy programmes. Short courses in Evidence Based Medicine have been offered and faculty supervised research projects for candidates in DM Programmes.

Members of our staff also contribute to undergraduate and post graduate clinical training in the MBBS and several DM programmes. We also assist other Faculties with rotations and guest lectures including candidates in the Social Work Programme by facilitating Practicum placement in the Sickle Cell Unit (SCU). The Sickle Cell Unit also facilitates rotations of practical nurses and other nurse training programmes outside of UWI.

We have active collaboration with the Faculty of Medical Sciences (FMS) in research training for staff through the FMS-TMRI research fellowships. This involves a 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. The fellowships continue to be successful which helps to strengthen research capacity and build collaborations with the departments.

Annual Research Skills Workshops (Basic and Advanced) are offered over the summer to persons who are interested in learning more about basic research. Attendees have included UWI Faculty & Staff Members, employees of the Ministry of Health (MOH), Health Care Providers and workers in other Government and Academic Institutions.

CLINICAL SERVICE

The Institute provides significant outreach to communities through clinical services. 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. The SCU is a part of the Sickle Cell Working Group together with the MOH and the Sickle Cell Trust. Work to expand neonatal screening is in progress with the support of the National Health Fund. The goal is to establish island-wide screening and to provide the training needed to improve access to quality early childhood care for SCD patients. The Sickle Cell Unit also conducts a summer Teen Camp for children with SCD, aimed at increasing knowledge of the disease and the ability to cope with living with a chronic disease.

The TMRU provides in-patient care for children with severe under-nutrition, foer subject volunteers of various clinical trials and experimental studies. They also provide nutritional consultations for hospitalized patients. This consultation service is currently being expanded to include fee paying services in areas such as body composition analysis and weight management. 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 INNOVATION

Our Annual Scientific Meeting was held October 28-30, and was attended by two members of our advisory group, Professor Isaac Odame (Global Sickle Cell Disease Network, The Hospital for Sick Children, Toronto) and Dr Peter Bennett (NIDDK Division of Intramural Research, Phoenix Epidemiology and Clinical Research Branch). These meetings are used to review the quality of our research programmes and assist with identifying opportunities for further collaborations. The main research programmes were 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. Collaborations and partnerships across units and research programmes have been emphasized over the past 3 years and has increased and continues to grow. Examples include the USA-Caribbean Alliance for Health Disparities Research (USCAHDR); collaborations on parenting practices and early life weight gain; neuro-cognition in Sickle Cell Disease (SCD); and metabolic aspects of SCD. As part of our efforts to promote collaboration across units and research programmes, we are working to increase joint research between Barbados and Jamaica; we have improved our video conferencing capacity which facilitates interaction by collaborators in the two countries. We are also seeking to increase projects which involve other countries in the region (e.g. Pilot of parenting interventions in the Caribbean; Implementation of a culturally sensitive peer/lay diabetes education programme for adults with type 2 diabetes in six English-speaking Caribbean countries).

Staff and students have presented their findings at several regional and international meetings, including specially invited presentations. A list of publications and presentations follows.

Staff of the Institute have obtained grant funds to support research from a variety of agencies, with significant funding from Grand Challenges Canada, NIH, the Wellcome Trust, MRC (UK), Sagicor and the National Health Fund. Additional training and mentorship for staff in writing grant proposals is needed as well as continued strengthening of UWI's grant administration support. Investment in this by the UWI will be critical in achieving the Strategic Objective, "Income source diversification".

PUBLIC SERVICE

Staff members hold leadership positions 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.

PUBLICATIONS

- Abdulkadri AO, Tulloch-Reid MK, Francis DK, Gordon-Strachan GM, Younger-Coleman NO, Rocke KD, McFarlane SR, Cunningham-Myrie CA, Ferguson TS, Wilks RJ, Anderson SG. WHO/ISH total risk approach for primary prevention of cardiovascular disease shows greater decrease in costs for women but not the elderly in Jamaica. *J Clin Epidemiol.* 2015; DOI: <http://dx.doi.org/10.1016/j.jclinepi.2014.11.027>
- Asnani MR, Quimby KR, Bennett NR, Francis DK: Interventions for patients and caregivers to improve knowledge of sickle cell disease and recognition of its related complications. *The Cochrane Library* 2014.
- Asnani M., Reid M. “Cystatin C: A useful marker of sickle glomerulopathy?” *Blood Cells, Molecules and Disease.* DOI: 10.1016/j.bcmed.2014.07.018.
- Asnani M., Anderson M. “The white blood cell always eat the red’: What Jamaicans with sickle cell disease know about their illness. *Ethnicity & Health* Apr 2015; Volume 2: Pages 1-15
- Asnani M, Reid, M. ‘Renal function in Adult Jamaicans with Homozygous Sickle Cell Disease’. *Hematology.* Volume 20, Issue 7 (August, 2015), pp. 422–428. Appeared Online Nov 28, 2014. DOI: <http://dx.doi.org/10.1179/1607845414Y.0000000213>
- Bahado-Singh PS, Wheatley AO, Osagie AU, Boyne MS, Morrison EYS, Ahmad MH, Asemota HN. Low to intermediate-glycemic-index Caribbean foods reduce glycemia, cardiovascular and inflammatory markers in overweight persons with type 2 diabetes. *Curr Res Nutr Food Sci* 2015; 3: 36-45.
- Baker-Henningham H. “Targeted, preventive interventions in primary school prevent mental health problems in adolescence.” *Evidence Based Mental Health* 2014-101864. Published online first 30 July 2014.

- **Baker-Henningham H.** “The role of early childhood education in the prevention and promotion of child and adolescent mental health.” *International Journal of Epidemiology* 43, 2(2014):407-433.
- **Bennett NR, Cumberbatch C, Francis DK:** There are challenges in conducting systematic reviews in developing countries: the Jamaican experience. *J Clin Epidemiol* 2015.
- **Bennett NR, Ferguson TS, Bennett FI, Tulloch-Reid MK, Younger-Coleman NO, Jackson MD, Samms-Vaughan ME and Wilks RJ** (2014). High sensitivity C-reactive protein is related to central obesity and the number of metabolic syndrome components in Jamaican young adults. *Front. Cardiovasc. Med.* 1:12. doi: 10.3389/fcvm.2014.00012 Available at <http://journal.frontiersin.org/Journal/10.3389/fcvm.2014.00012/abstract>
- **Bennett NR, Francis DK, Ferguson TS, Hennis AJ, Wilks RJ, Harris EN, MacLeish MM, Sullivan LW;** U.S. Caribbean Alliance for Health Disparities Research Group (USCAHDR). Disparities in diabetes mellitus among Caribbean populations: a scoping review. *Int J Equity Health.* 2015 Feb 25;14(1):23. doi: 10.1186/s12939-015-0149-z.
- **Bhaumik S, Rana S, Karimkhani C, Welch V, Armstrong R, Pottie K, Dellavalle R, Dhakal P, Oliver S, Francis DK, Nasser M, Crowe S, Aksut B, Amico RD.** Ethics and equity in research priority-setting: stakeholder engagement and the needs of disadvantaged groups. *Indian J Med Ethics.* 2015 Apr-Jun;12(2):110-3. Epub 2015 Mar 16
- **Bowers AS, Francis DK, Bennett NR.** Interventions for treating pulmonary hypertension in people with sickle cell disease or thalassaemia (Protocol). *Cochrane Database of Systematic Reviews* 2015, Issue 6. Art. No.: CD011752. DOI: 10.1002/14651858.CD011752.
- **Boyne M.S., Thame M., Osmond C., Fraser R.A., Reid M., Gabay L., Forrester T.E.** “The association of puberty with cardiometabolic risk factors in Afro-Caribbean children.” *Journal of Pediatric Endocrinology and Metabolism*, 27(2014):453-60.

- **Chang S.M.**, Grantham-McGregor S.M., **Powell C.A.**, Vera-Hernández M., Lopez-Boo F., **Baker-Henningham H.**, & **Walker S.P.** (2015) Integrating a Parenting Intervention with Routine Primary Health Care: A Cluster Randomized Trial. *Pediatrics* published online: July 6, 2015 (doi: 10.1542/peds.2015-0119).
- Clare-Pascoe N, Lee MG, Murphy T, Nicholson A, **Ferguson TS.** A Review of *Clostridium difficile* Infection at the University Hospital of the West Indies, Jamaica. *West Indian Med J*, 2015; ; DOI: 10.7727/wimj.2014.180 Available at: <https://www.mona.uwi.edu/fms/wimj/article/2096>
- Cunningham-Myrie C, Abdulkadri A, Waugh A, Bortolusso Ali S, **King LG, Knight-Madden J, Reid M.** Hydroxyurea use in prevention of stroke recurrence in children with sickle cell disease in a developing country: A cost effectiveness analysis. *Pediatr Blood Cancer*. 2015 Oct;62(10):1862-4. doi: 10.1002/pbc.25563. Epub 2015 Apr 30. PubMed PMID: 25929458.
- Cunningham-Myrie CA, Theall KP, Younger NO, Mabile EA, **Tulloch-Reid MK, Francis DK, McFarlane SR, Gordon-Strachan GM, Wilks RJ.** Associations between neighborhood effects and physical activity, obesity, and diabetes: The Jamaica Health and Lifestyle Survey 2008. *J Clin Epidemiol*. 2015 Apr 22. pii: S0895-4356(14)00335-7. PubMed PMID: 25910912.
- Duncan JP, Weir P, Strachan S, **Tulloch-Reid M.** Opportunities for reducing morbidity and mortality due to leading cancers in a developing country. *J Public Health (Oxf)*. 2014 Dec 23. pii: fdu109.
- **Ferguson TS, Tulloch-Reid MK, Younger-Coleman NO, Wright-Pascoe RA, Boyne MS, Soyibo AK, Wilks RJ.** Prevalence of Chronic Kidney Disease among Patients Attending a Specialist Diabetes Clinic in Jamaica. *West Indian Med J*, 2015 DOI: 10.7727/wimj.2014.084
- **Ferguson TS, Younger-Coleman NO, Tulloch-Reid MK, Knight-Madden JM, Bennett NR, Samms-Vaughan M, Ashley D, McCaw-Binns A, Molaodi OR, Cruickshank JK, Harding S, Wilks RJ.** Birth

weight and maternal socioeconomic circumstances were inversely related to systolic blood pressure among Afro-Caribbean young adults. *J Clin Epidemiol.* 2015 Sep;68(9):1002-9. doi: 10.1016/j.jclinepi.2015.01.026. Epub 2015 Feb 12. PubMed PMID: 25777627.

- **Ferguson TS, Tulloch-Reid MK, Younger-Coleman NO, Wright-Pascoe RA, Boyne MS, Soyibo AK, Wilks RJ.** Prevalence of Chronic Kidney Disease among Patients Attending a Specialist Diabetes Clinic in Jamaica. *West Indian Med J*, 2015; DOI: 10.7727/wimj.2014.084 Available at: <http://www.mona.uwi.edu/fms/wimj/article/2094>
- Francis KK, **Younger-Coleman NO, Tulloch-Reid MK, Wright-Pascoe RA, Boyne MS, Wilks RJ, Ferguson TS.** Relationship between Self-Monitoring of Blood Glucose and Glycaemic Control among Patients Attending a Specialist Diabetes Clinic in Jamaica. *International Journal of Diabetes in Developing Countries*, (2015) 35:26-32
- Francis P.M., **Thompson D.S.**, Barnett A.T., Osmond C., Byrne C.D., Hanson M.A., Gluckman P.D., Forrester T.E., **Boyne M.S.** “Glucose metabolism in adult survivors of severe acute malnutrition.” *Journal of Clinical Endocrinology and Metabolism.* 99, 6(2014):2233-2240.
- **Francis DK, Smith J, Saljuqi T, Watling RM.** Oral protein calorie supplementation for children with chronic disease. *Cochrane Database of Systematic Reviews* 2015, Issue 5. Art. No.: CD001914. DOI: 10.1002/14651858.CD001914.pub2.
- Gertler P., Heckman J., Pinto R., Zanolini A., Vermeerch C., **Walker S., Chang S., Grantham-McGregor S.** “Labour market returns to an early childhood stimulation intervention in Jamaica.” *Science* 344, 6187(2014):998-1001.
- Grantham-McGregor S.M., Fernald L.C.H., Kagawa R.M.C., **Walker S.P.** “Effects of integrated child development and nutrition interventions on child development and nutritional status.” *Annals of New York Academy of Science* 1308, 1(2014):11–32.

- Green C.O., **Badaloo A.V.**, Hsu J.W., **Taylor-Bryan C.**, **Reid M.**, Forrester T., Jahoor F. “Effects of randomized supplementation of methionine or alanine on cysteine and glutathione production during the early phase of treatment of children with edematous malnutrition.” *The American Journal of Clinical Nutrition* 99, 5(2014):1052-1058.
- Gridley N., Hutchings J., **Baker-Henningham H.** “The Incredible Years parent-toddler programme and parental language: a randomised controlled trial.” *Child Care Health and Development* (2014). Article first published online: 19 May 2014.
- Hambleton IR, Howitt C, Jeyaseelan S, Murphy M, Hennis AJM, **Wilks R**, Harris EN, MacLeish M, Sullivan L. Trends in longevity in the Americas: disparities in life expectancy in women and men, 1965-2010. *PLOS One* 2015. (In Press).
- Hambleton IR, Jeyaseelan S, Howitt C, Sobers-Grannum N, Hennis AJ, **Wilks RJ**, Harris EN, MacLeish M, Sullivan LW; US Caribbean Alliance for Health Disparities Research Group. Cause-of-Death Disparities in the African Diaspora: Exploring Differences Among Shared-Heritage Populations. *Am J Public Health*. 2015 Apr 23:e1-e8.
- Harris M, James K, **Ferguson TS**, Figueroa JP. Glycaemic control among patients with diabetes in primary care clinics in Jamaica; 1995 and 2012. *WIMJ Open*, 2014; 1(3): 99-102. DOI:10.7727/wimjopen.2014.085. Available at: <http://www.mona.uwi.edu/wimjopen/article/1604>
- Hsu J.W., **Badaloo A.V.**, Wilson L., **Taylor-Bryan C.**, **Chambers B.**, **Reid M.**, Forrester T., Jahoor F. “Dietary supplementation with aromatic amino acids increases protein synthesis in children with severe acute malnutrition.” *Journal of Nutrition* 144, 5(2014):660-666.
- Jackson MD, **Tulloch-Reid MK**, Lindsay CM, Smith G, Bennett FI, McFarlane-Anderson N, Aiken W, Coard KC. Both serum 25-hydroxyvitamin D and calcium levels may increase the risk of incident

prostate cancer in Caribbean men of African ancestry. *Cancer Med.* 2015 Apr 7. doi: 10.1002/cam4.457. [Epub ahead of print]

- Kao CC, Hsu JW, Dwarkanath P, Karnes JM, Baker TM, Bohren KM, **Badaloo A**, Thame MM, Kurpad AV, Jahoor F. Indian women of childbearing age do not metabolically conserve arginine as do American and Jamaican women. *J Nutr.* 2015 May; 145(5):884-92.
- **Knight-Madden J.M.**, Greenough A. “Acute pulmonary complications of sickle cell disease.” *Paediatric Respiratory Reviews* 15, 1(2014):13-16.
- Kristjansson E, **Francis DK**, Liberato S, Benkhalti Jandu M, Welch V, Batal M, Greenhalgh T, Rader T, Noonan E, Shea B, Janzen L, Wells GA, Petticrew M. Food supplementation for improving the physical and psychosocial health of socio-economically disadvantaged children aged three months to five years. *Cochrane Database of Systematic Reviews* 2015, Issue 3. Art. No.: CD009924. DOI: 10.1002/14651858.CD009924.pub2
- **Landis RC**, Brown JR, Fitzgerald D, Likosky DS, Shore-Lesserson L, Baker RA, Hammon JW. “Attenuating the Systemic Inflammatory Response to Adult Cardiopulmonary Bypass: A critical Review of the evidence Base” *J Extra Corpor Technol* 46 (2014), 197-211.
- Lester DA, Richards AA, **Younger-Coleman NO**, Pepple DJ. Cilostazol and blood viscoelasticity in homozygous sickle cell disease. *Br J Biomed Sci.* 2014;71(4):172-5. PubMed PMID: 25562995.
- **McFarlane S**, Younger NO, Francis D, Gordon-Strachan G, Grant A, Wilks RJ. Risk Behaviour and Adolescent Depression in Jamaica. *Int. J of Adol. and Youth*; Jan 2013
- Melbourne-Chambers R, Clarke D, Gordon-Strachan G, Tapper J, **Tulloch-Reid MK**. The UWIMONA Pediatric Epileptic Seizure Screening Questionnaire was equivalent to clinical assessment in identifying children with epilepsy. *J Clin Epidemiol.* 2015 Mar 12. pii: S0895-4356(15)00124-9. doi: 10.1016/j.jclinepi.2014.10.014. [Epub ahead of print]

- Mani K.A., Hoo Sang M., **Younger-Coleman N.O.**, **Ferguson T.S.** “Ischaemic Heart Disease at the University Hospital of the West Indies: Trends in Hospital Admissions and Inpatient Mortality Rates 2005-2010.” *West Indian Medical Journal*, 2014; Published-ahead-of-print. Available at: <http://myspot.mona.uwi.edu/fms/wimj/article/1799>.
- AJ, Conterno LO, **Knight-Madden JM**. Antibiotics for treating acute chest syndrome in people with sickle cell disease. *Cochrane Database Syst Rev*. 2015 Mar 6;3:CD006110. doi: 10.1002/14651858.CD006110.pub4. PubMed PMID:25749695.
- Martí-Carvajal AJ, **Knight-Madden JM**, Martínez-Zapata MJ. Interventions for treating leg ulcers in people with sickle cell disease. *Cochrane Database Syst Rev*. 2014 Dec 8;12:CD008394. doi: 10.1002/14651858.CD008394.pub3. Review. PubMed PMID: 25485858.
- Melbourne Chambers R., Morrison-Levy N., **Chang S.**, Tapper J., **Walker S.**, **Tulloch-Reid M.** “Cognition, academic achievement, and epilepsy in school-age children: A case-control study in a developing country.” *Epilepsy & Behaviour* 33(2014):39-44.
- Morgan K, Scott J, **Parshad-Asnani M**, Gibson RC, O’Garo KN, Lowe GA, Edwards D, Abel WD, **Reid M**, DeLaHaye W and Edwards CL. Associations amongst disease severity, religious coping and depression in a cohort of Jamaicans with sickle-cell disease. *Mental Health, Religion & Culture*, Sept. 2014; Vol. 14 Issue 9. <http://dx.doi.org/10.1080/13674676.2014.961910>
- Morrison E., McFarlane M., Riley C., **Younger-Coleman N.** “Education to change the course of diabetes in the *Caribbean*.” *Diabetes Voice* 59(2014):44.
- **NCD Risk Factor Collaboration**. Effects of diabetes definition on global surveillance of diabetes prevalence and diagnosis: a pooled analysis of 96 population-based studies with 331 288 participants. *The Lancet Diabetes & Endocrinology*, 2015; DOI: 10.1016/S2213-8587(15)00129-1. Available at: <http://www.thelancet.com/journals/landia/article/PIIS2213-8587%2815%2900129-1/fulltext>

- Nebor D., **Bowers A.**, Connes P., Hardy-Dessources M.D., **Knight-Madden J.**, Cumming V., **Reid M.**, Romana M. “Plasma concentration of platelet-derived micro-particles is related to painful vaso-occlusive phenotype severity in sickle cell anemia.” *PLoS One*. 9, 1(2014):e87243.
- Nwokocha CR, **Younger-Coleman N**, Nwokocha M, Owu DU, Iwuala M. Investigation of effects of time of measurement and modes of administration on cadmium accumulation in rat liver under some medicinal plants food supplemented diet. *Phcog Res* 2014;6:240-5.
- Nwokocha C.R., **Younger-Coleman N.**, Nwokocha M., Owu D.U., Iwuala M. “A comparative study of the effect of some nutritional medicinal plants effect on lead accumulation in the liver following different modes of administration. *Pharmacognosy Research*. 6, 4(2014):306-311. [Epub ahead of print]
- Picking D, Delgoda R, **Younger N**, Germosén-Robineau L, Boulogne I, Mitchell S. TRAMIL ethnomedicinal survey in Jamaica. *J Ethnopharmacol*. 2015 Jul 1;169:314-27. PubMed PMID: 25929450.
- Pinkney JA, Nagassar RP, Roye-Green KJ, **Ferguson T**. Abiotrophia defectiva endocarditis. *BMJ Case Reports*. 2014; doi:10.1136/bcr-2014-207361 Available at: http://casereports.bmj.com/content/2014/bcr-2014-207361.short?g=w_casereports_current_tab
- **Rankine-Mullings A.E.**, **Knight-Madden J.M.**, **Reid M.**, **Ferguson T.S.** “Gangrene of the digits of the right lower limb in a patient with homozygous sickle cell disease and ulcerative colitis.” *Clinics and Practice* 4, 1(2014):610.
- **Reid M.E.**, El Beshlawy A., Inati A., Kutlar A., Abboud M.R., Haynes J. Jr., Ward R., Sharon B., Taher A.T., Smith W., Manwani D., Ghalie R.G. “A double-blind, placebo-controlled phase II study of the efficacy and safety of 2, 2-dimethylbutyrate (HQB-1001), an oral fetal globin inducer, in sickle cell disease.” *American Journal Hematology*; 89, 7(2014):709-13.
- Roberts P.O., Plummer J., Leake P.A., Scott S., de Souza T.G.,

- Johnson A., Gibson T.N, Hanchard B., **Reid M.** “Pathological factors affecting gastric adenocarcinoma survival in a Caribbean population from 2000-2010.” *World Journal of Gastrointestinal Surgery* 6, 6(2014):94-100.
- Sargeant T, **Ferguson TS.** Rhabdomyolysis and Dengue Fever: Is this more common than we think? *West Indian Med J*, 2015; DOI: 10.7727/wimj.2014.184 Available at: <http://www.mona.uwi.edu/fms/wimj/article/2093>
 - Sioka C., Skarulis M.C., **Tulloch-Reid M.K.**, Heiss J.D., Reynolds J.C. "Hidden" bonemetastasis from thyroid carcinoma: a clinical note.” *Revista Espanola de Medicina Nuclear e ImagenMoecular.* 33,1 (2014):36-38.
 - **Smith J.A., Francis D.K., Ferguson T.S.** “Race, Gender and Adiposity in Children.” *West Indian Medical Journal.* 67, 7(2014): 573-574.
 - Sobers-Grannum N, Murphy M, Samuels A, Nielson A, **Unwin N.** Female Gender is a Social Determinant of Diabetes in the Caribbean: A Systematic Review and Meta-Analysis. *PLOS One* 2015 (In Press)
 - Sumner AE, Thoreson CK, O'Connor MY, Ricks M, Chung ST, **Tulloch-Reid MK,** Lozier JN, Sacks DB. Detection of Abnormal Glucose Tolerance in Africans Is Improved by Combining A1C With Fasting Glucose: The Africans in America Study. *Diabetes Care.* 2014 Oct 22. pii: DC_141179.
 - Tennant I.A., Barnett A.T., Kips J., **Thompson D.S., Boyne M.S.,** Chung E., Chung A.P., Osmond C., Hanson M.A., Gluckman P.D., Segers P., Cruickshank J.K., Forrester T.E. “Impaired cardiovascular structure and function in adult survivors of severe acute malnutrition.” *Hypertension* 64, 3 (2014) 664-671.
 - Tennant IA, Barnett AT, Kips J, **Thompson DS, Boyne MS,** Chung EE, Chung AP, Osmond C, Hanson MA, Gluckman PD, Segers P, Cruickshank JK, Forrester TE. Cardiovascular function in adult survivors of severe childhood malnutrition. *Hypertension.* 2014; 64: 664-71.

- Thame MM, Hsu JW, Gibson R, Baker TM, Tang GJ, **Badaloo AV**, Fletcher HM, Jackson AA, Jahoor F. Adaptation of in vivo amino acid kinetics facilitates increased amino acid availability for fetal growth in adolescent and adult pregnancies alike. *Br J Nutr.* 2014 Dec 14;112(11):1779-86
- **Thompson D.S., Boyne M.S., Osmond C., Ferguson T.S., Tulloch-Reid M.K., Wilks R.J., Barnett A.T., Forrester T.E.** “Limitations of fasting indices in the measurement of insulin sensitivity in Afro-Caribbean adults.” *BMC Research Notes* 7, 98(2014).
- **Thompson D.S., Ferguson T.S., Wilks R.J., Phillips D.I., Osmond C., Samms-Vaughan M., Forrester T.E., Boyne M.S.** “Early life factors are associated with nocturnal cortisol and glucose effectiveness in Afro-Caribbean young adults.” *Clinical Endocrinology* (Oxford). (2014). [Epub ahead of print].
- **Thompson DS, Boyne MS, Osmond C, Ferguson TS, Tulloch-Reid MK, Wilks RJ, Barnett AT, Forrester TE.** Fasting indices do not correlate with dynamic measures of insulin sensitivity in Afro-Caribbean adults. *BMC Res Notes.* 2014;7:98.
- **Thompson DS, Ferguson TS, Samms-Vaughan M, Wilks RJ, Phillips, DI, Osmond C, Forrester TE, Boyne MS.** Birth size is associated with nocturnal cortisol and glucose effectiveness in Afro-Caribbean adults. *Clin Endocrinol* (Oxf). 2015;82:352-8.
- **Walker SP, Chang SM, Wright A, Osmond C, Grantham-McGregor S.** (2015) Early childhood stunting is associated with lower developmental levels in the subsequent generation of children. *Journal of Nutrition* 145, 823-8.
- **Wilks RJ.** Epidemiology in the Caribbean: an Important Contributor to Clinical and Public Health Practice. *J Clin Epidemiol.* 2015 Feb 7. pii: S0895-4356(15)00061-X. doi: 10.1016/j.jclinepi.2014.09.027. [Epub ahead

PUBLICATIONS – SPECIAL ISSUE

Special issue of the *Journal of Clinical Epidemiology*, highlights the work of the UWI Clinical Epidemiology Unit. The issue features a historical perspective of epidemiology and the future of clinical epidemiology by **Professor Rainford Wilks**; the role of early life determinants of adult blood pressure, and how that critical period may impact the region's chronic non-communicable diseases epidemic by **Dr Trevor Ferguson** and **Professor Marshall Tulloch-Reid** served as one of the guest editors for this issue. The issue will be in press in the next few months but articles from this issue are available online at <http://www.jclinepi.com/inpress>

PRESENTATIONS

Susan Walker

- Reaching more children and families with evidence based parenting interventions. Scaling program investments for young children globally: Evidence from Latin America and the Caribbean and other developing regions. Forum on Investing in Young Children Globally, Sao Paulo, Brazil, November 10–11, 2014
- Bundling services for young children. Early childhood development Costing Workshop. The Brookings Institution, Washington DC, December 2–3, 2014
- The Jamaica Early Child Development Intervention: Efficacy to Global Impact. Plenary address; Conference on Investing in Early Child Development for a Better World. Institute for Human Development, Nairobi, Kenya, February 12–14, 2015

Monica Asnani

- Quality of life and knowledge of Jamaican adolescents with Sickle Cell Disease. Oral presentation in 'Quality of Life' workshop. 2nd Global congress on sickle cell disease held Rio de Janeiro, Brazil. November 11–14, 2014.
- Determinants of Renal Decline in Sickle Cell Disease. Oral presentation

at 7th Caribbean Institute of Nephrology conference held in Montego Bay, Jamaica. January 29–31, 2015.

- Sickle Cell Disease in Jamaica. Invited lecture to Bass Connections faculty & students at Duke University, USA. Delivered via Skype. November 20, 2014.

Angela Rankine-Mullings

- SCATE the Jamaican Experience, Haematology Grand Rounds - Cincinnati Comprehensive Sickle Cell Centre, Division of Haematology, Cincinnati Children's Hospital Medical Centre, September 3, 2014

Lesley-Gaye King

- Sickle Cell Association of Austin, Texas – “Continuum of Care 2014: Clinicians Role in Transforming the Quality of Life for Patients with Sickle Cell Disease” April 26th, 2014. Sickle Cell Disease: The International Perspective
- Caribbean Association of Oncology & Haematology Conference (Barbados) 2015 – “Challenges in Cancer Care/Treatment: the Caribbean Perspective” April 24–25th, 2015. Newborn Screening Programme for Sickle Cell Disease

Michael Boyne

- Early childhood malnutrition and glucose dysregulation in West Indian adults. American Diabetes Association 75th Scientific Sessions, Symposium on “Global Challenges and Disparities in Diabetes,” June 5, 2015, Boston, MA.

PUBLIC SERVICE

Susan Walker

- Board of Trustees, Environmental Foundation of Jamaica Trust Fund.
- Contributor, USAID Global Classroom on Childhood Adversity.

Tropical Medicine Research Institute

- Member, Public Health Nutrition Advisory Committee, Caribbean Public Health Agency (CARPHA)
- Member, Advisory Committee on Health Research, Pan American Health Organization

Marshall Tulloch-Reid

- Jamaica Ministry of Health - Chickungunya Research Committee and Clinical Research Subcommittee

Jennifer Knight-Madden

- Vice President of Caribbean Network of Researchers in Sickle Cell Disease and Thalassemia
- Member of Ministry of Health Sickle Cell Disease working group
- Co-chair of Sickle Cell Disease Working Group, SickKids Caribbean Initiative
- Member, Ministry of Health, Scientific and Technical Working Group

Suzanne Soares-Wynter

- Audit Committee Member and Operations Committee Member, Board of Directors, Nutrition Products Limited. Ministry of Education, Youth and Culture (Government of Jamaica) School Feeding Division.

Monica Asnani

- Caribbean Representative: Worldwide Initiative on Social Studies in Hemoglobinopathies (WiSSH)
- Caribbean College of Family Physicians:
 - Honorary Secretary
 - Co-Chair, CME Committee
 - Member, Accreditation & Certification Committee.
- Board Member of Caribbean Network of Researchers in Sickle Cell Disease and Thalassemia

- Planning and execution of Medical Seva Camp of Shri Satya Sai Baba Organization in Jamaica. Brought in 10 doctors and 9 volunteers to assist from USA along with medications. Clinics in rural areas: April 19–25, 2015.

Angela Rankine-Mullings

- Member of Jamaica Pain Collaborative (representing TMRI) November
- Member of the District Health Committee

Michael Boyne

- First Vice-President, Association of Consultant Physicians of Jamaica
- Member, Board of Diabetes Association of Jamaica
- Member, DOHAD Council
- Panel Advisor, PAHO/CARPHA Technical working group, Guidelines for the management of diabetes
- Scientific Committee, Mona Office for Research and Innovation
- Member, National Health Fund Expert Panel of Physicians
- Reviewer for the following medical journals:

Journal of DOHAD

Journal of Clinical Endocrinology Metabolism

Diabetes Care

West Indian Medical Journal

Diabetology & Metabolic Syndrome

Journal of Pediatrics

Endocrine

PlosOne

- Member, National Health Fund Expert Panel of Physicians

INCOME GENERATION

1. Title: **Developing, implementing and evaluating a teacher-training intervention to promote child mental health in the early grades of primary school in Jamaica**
Funding Agency: Grand Challenges Canada: Global Mental Health
Period of Award: Oct 2014–Sep 2016
Investigators: Helen Baker-Henningham, Yakeisha Townsend
Value of Award: CAD \$268,922

2. Title: **The “IRIE Classrooms Toolbox”: A cluster randomized trial of a universal violence prevention programme in Jamaican preschools**
Funding Agency: Medical Research Council
Period of Award: Oct 2014–Sep 2018
Investigators: Helen Baker-Henningham, Susan Walker
Value of Award: GBP 1,197,664.65

3. Title: **SickKids-Caribbean initiative (SCI): Enhancing Capacity for Care in Paediatric Cancer and Blood Disorders**
Funding Agency: The Hospital for Sick Children (SickKids)
Period of Award: 2014–2019 (subject to approval)
Investigators: Jennifer Knight-Madden
Value of Award for 2014/2015: CAD \$41,000

4. Title: **Decreasing preventable Childhood Mortality due to Sickle Cell Diseases in Jamaica (MDG4)**
Funding Agency: National Health Fund
Period of Award: Feb 2015–Jan 2016
Investigators: Jennifer Knight-Madden
Value of Award: JMD \$10,000,000

5. Title: **Expanding Treatment for Existing Neurological Disease (EXTEND) Clinical Trial**
Funding Agency: Children’s Hospital Medical Center (CHMC)
Principal Investigator: Marvin Reid, Jennifer Knight-Madden
Period of Award: December 2014–November 2017
Value: USD\$80,000 (Based on enrolment)

6. Title: **Integrating a parenting intervention with routine care to improve early developmental outcomes in children with sickle cell disease**
Funding Agency: Grand Challenges Canada
Period of Award: 2014–2016
Investigators: J. Knight-Madden, S. Chang-Lopez, M. Asnani, L. King, S Walker
Value of Award: CAD \$178,101
Value for 2014/2015: CAD \$77,089

7. Title: **Promoting global child development: A web based intervention package for parents and children, for use by community workers in low resource settings**
Funding Agency: Grand Challenges Canada: Saving Brains
Period of Award: 2013–2016
Investigators: Susan Walker, Christine Powell, Sally McGregor, Susan Chang, Helen Baker-Henningham, Marta Rubio-Codina & Jena Hamadani
Value of Award: CAD\$2 million
Value for 2014/2015: CAD \$791,797

8. Title: **Home Visiting Programs to Improve Early Childhood Development and Maternal Mental Health – Evidence from the Western Region Project**
Funding Agency: Grand Challenges Canada
Investigators: A. Brentani, S. Grisi, M. Simões, G. Fink, S. Chang-Lopez, C. Powell.

Tropical Medicine Research Institute

Period of Award: 2014-2016

Value of Award: CAD \$250,000

9. Title: **USA-Caribbean Alliance for Health Disparities Research (USCAHDR)**
Funding Agency: Sullivan Alliance
Investigator: Rainford Wilks
Period: 2011–2016
National Institute on Minority Health and Health Disparities
Cooperative Agreement No.1U24MD006959-01, NIH –
US\$4,799,063.00
9. Title: **Integrative Global Research on Sickle Cell Disease**
Funding Agency: Bass Connections Grant, Duke University
Co-Investigator: Jennifer Knight-Madden
Value: US\$ 25,000.00
Period: July 1, 2014–June 30, 2015
10. Title: **‘CIJA Study’. Chronic Illness in Jamaican Adolescents**
Funding Agency: UNICEF
Co-Investigator: Jennifer Knight-Madden
Value: US\$ 35,000
Period: June 2014–2015.
11. Title: **A Phase II, Multicenter, Randomized, Placebo-Controlled, Double-Blind, 12-Month Study to Assess Safety and Efficacy of SelG1 With or Without Hydroxyurea Therapy in Sickle Cell Disease Patients with Sickle Cell-Related Pain Crises. (SUSTAIN)**
Funding Agency: Selexys Pharmaceuticals
Investigators: Jennifer Knight-Madden, Angela Rankine-Mullings
Period of Award: 2013–2016
Value: USD\$100,000.00 (estimated, depends on patient enrolment)