THE CARIBBEAN INSTITUTE FOR HEALTH RESEARCH (formerly TMRI)



Professor Marvin Reid, MB, BS, PhD Director (Actg.)

OVERVIEW OF THE DEPARTMENT

The Institute comprises of the Epidemiology Research Unit (ERU), Sickle Cell Unit (SCU) and Tropical Metabolism Research Unit (TMRU) on the Mona campus, and the George Alleyne-Chronic Disease Research Centre (GA-CDRC) at Cave Hill. This report covers the Mona units with the report for CDRC submitted to the Cave Hill Principal. The CAIHR 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.

Academic Programmes

The Institute offers Masters and doctoral programmes in Nutrition and Epidemiology. In the 2016–2017 academic year, the MSc programmes

(Epidemiology & Nutrition) were not offered as they were under revision, however the MSc Epidemiology will be offered in the coming year. Visiting faculty members were Dr Luoise Goffe and Professor Kennedy Cruikshank from Kings College, London, Dr. Barry M. Popkin, W. R. Kenan, Jr. Distinguished Professor Gilling's School of Global Public Health, University of North Carolina, Chapel Hill and members of Bloomberg Philanthropy, Dr Aja Murray representing the Evidence for Better Lives Consortium, University of Cambridge, Professor Sally McGregor, University College London and Dr. Simon Anderson from the University of Manchester.

We also coordinate the nutrition module for the MBBS programme and members of staff teach on several other courses within the MBBS, as well as the MPH and DrPH programmes and supervision of DM candidates. We have active collaborations with the Faculty of Medical Sciences in research training for staff through the FMS-CAIHR research fellowships which involves a two-year placement of FMS faculty in the CAIHR for training in research with the objective being to conduct and publish a research project. The fellowships continue to be successful and help to strengthen research capacity and build collaborations with the departments. Our Annual Research Skills Workshops (Basic and Advanced) were delivered in July with increased attendance as a result of changes made to the timing and delivery of the lectures. Staff at the ERU also conducted a workshop on the WHO/TDR Effective Project Planning and Evaluation (EPPE).

Clinical Service

The Institute provides significant outreach to communities through clinical service. The Sickle Cell Unit (SCU) 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, collaborating with the Ministry of Health, provides island wide neonatal screening. Additionally, the SCU provides training and technical support for this programme. The programme is coordinated by a joint working group comprising the Ministry of Health,

the SCU and the Sickle Cell Trust. The Sickle Cell Unit also conducted the summer Teen Camp for children with SCD, aimed at increasing knowledge of the disease and their ability to cope with living with a chronic disease, especially at an age when they begin to assume more responsibility for self-care.

The TMRU provides in-patient care for children with severe undernutrition, and subject volunteers of various clinical trials and experimental studies, and provides nutritional consultations for hospitalized patients. The nutrition 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 Publications

The research programme of the Unit falls under the Institute's 3 themes of i) Biological Expression of Disease; ii) Determinants of Health along the Life Course; iii) Health Interventions, Evaluation, Translation and Implementation Research and are centred on Alignment Axis of The University of the West Indies Triple A strategic plan. The main 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 be strengthened. The UWI team will also be part of a new Global Diet and Physical Activity Network, following the successful application to National Institute for Health Research in the UK by the University of Cambridge. UWI will be the only Caribbean site with other partners from Cameroon, Kenya and South Africa complementing the team.

CAIHR also became part of the Global Evidence Synthesis Initiative (GESI) in May 2017. GESI was created by a number of global or internationally oriented research organizations committed to the production

and use of evidence syntheses to enhance professional practice and public policy. The goal of the network is to build partnerships and collaborations and strengthen capacity in multidisciplinary evidence synthesis production and use in low and middle income countries (LMICs). This will be done through identifying established Centers of Evidence Synthesis in LMICs and connecting them through the network. The ERU continues to be a part of the Caribbean Branch of the USA Cochrane Collaborating Centre (CBUSCC) with a number of systematic reviews in progress in collaboration with faculty at CAIHR and the wider FMS.

Staff of the Institute has obtained grant funds to support research from a variety of agencies, with significant funding from Grand Challenges Canada, NIH, the Wellcome Trust and the IAEA. Initiatives were implemented to strengthen grant management support through the training of administrative staff in NIH Program Funding and Grants Administration. Continued investment in this by the UWI will be critical for achievement of the Strategic Objective, **Income source diversification**.

The upcoming academic year (2017/18) will see a continuation of our current activities, the execution of newly funded projects that will be coming on stream, submission of grant applications to support planned research activities and forging new partnerships to complement the skills and resources within the Institute and increase the visibility of the Institute and its research work. Identification and mentoring of the next generation of bright academic staff will also be another area of focus. There is currently a critical need to expand the current physical plant to accommodate new staff and project activities associated with current and future grants and training activities and negotiations on short and long term solutions for our needs will need to be given priority.

PAPERS PRESENTED

Blake, A., Asnani, V., Leger, R., Odesina, V., Wagner, L., Knight-Madden, J., Asnani, M. "Stigma and Illness Uncertainty: Adding to the burden of Sickle Cell Disease." Oral presentation at the 25th

Annual Research Conference of the Faculty of Medical Sciences, UWI, Mona. Kingston, Jamaica. November 2016. Received 'Dean's Award for Best Oral Presentation, FMS Annual Research Conference 2016'.

- Baker-Henningham H., Bowers M, Francis T, Walker S. (2017). "The Irie Classroom Toolbox: Cluster randomised trial of a universal violence prevention programme in Jamaican preschools". Society for Prevention Research 25th Annual Meeting. Washington DC. May 30th–June 1st, 2017.
- Baker-Henningham H, Bowers M, Scott Y. (2017). "Piloting a universal violence prevention programme in Jamaican Grade One Primary Schools". Society for Prevention Research 25th Annual Meeting. Washington DC. May 30th–June 1st, 2017.
- Baker-Henningham H, Bowers M, Francis T, Vera-Hernandez M, Walker S. (2016). "The Irie Classroom Toolbox: Preventing violence against children in early childhood classrooms". Grand Challenges Conference, London, October 24th–26th, 2016.
- Blake, A., Asnani, V., Leger, R., Odesina, V., Wagner, L., Knight-Madden, J., Asnani, M. "Stigma and Illness Uncertainty: Adding to the burden of Sickle Cell Disease." Oral presentation at 62th Annual Research Conference of the Caribbean Public Health Agency. April 27–29, 2017. Georgetown, Guyana. Received 'Student Prize'.
- Francis, D. "Accuracy of cardiovascular disease related cause-of-death coding in Jamaica: 2008". Ministry of Health Annual Research Conference. Kingston, Jamaica. November 2016.
- Francis, D. "Disparities in Cardiovascular Disease Mortality in Afro Caribbean's and the U.S. Population (1996–2013)". 62nd CARPHA Health Research Conference. Guyana, April 27–29, 2017
- Govia, I.O. "Psychological science and the 2030 sustainable development agenda: National, regional, and international collaboration".
 Caribbean Action 2030: Regional Conference on the Sustainable Development Goals. Kingston, Jamaica. June 2017
- Govia, I.O. "Dementia research in the Caribbean as a policy

- instrument". The 4th Alzheimer's disease International non-Latin Caribbean Conference on Alzheimer's and Other Dementias, Port of Spain, Trinidad. June, 2017
- Govia, I.O. "Aging, mental health, and dementia". Caribbean Preparatory Meeting for the 4th Regional Conference on Aging and the Rights of Older Persons, Port of Spain, Trinidad. June 2017
- Govia, I.O. "Jamaica Health and Lifestyle Survey III: Qualitative sub-studies". Mixed Methods International Research Association Regional Conference in the Caribbean, Montego Bay, Jamaica. March 2017.
- Govia, I.O. "Trauma: Hurting and helping". The 4th Caribbean Regional Conference of Psychology, Port au Prince, Haiti. November 2016.
- Govia, I. O. "Early life crisis?" Caregiving for parents while caring for others". The Planning Institute of Jamaica's Employees' Health and Wellness Day, Kingston, Jamaica. November 2016.
- Walker S. "Promoting young child development: Early learning in the home". Annual Meeting of the Dudley Grant Memorial Trust. Kingston, Jamaica. November 2016.
- Walker S. "Reach Up: An Early Childhood Parenting Programme."
 Early Childhood Development Symposium, Foundations for our future FEMSA/IDB. Mexico City, December 4–6, 2016

Posters

- Morrison-Levy N., Knight-Madden J., King L., Royal-Thomas, T., Asnani, M. "Improving disease knowledge in 6 to 10 year olds with sickle cell disease: a quasi-randomized trial." Poster presentation at 25th Annual Research Conference of the Faculty of Medical Sciences, UWI, Mona. Kingston, Jamaica. November 2016.
- Rankine-Mullings AE, Badaloo AV, Soares DP, Little CR, Schultz WH, Taylor-Bryan C, Stuber SE, Aldred KDP, Wisdom-Phipps ME, Luden JR, Knight-Madden JM, Latham T, Reid ME, Ware RE. "Transcranial Doppler ultrasonography (TCD), organ function,

metabolic and nutritional status in children with sickle cell anaemia: baseline data from the EXTEND trial." The American Society Pediatric Haematology/Oncology Conference, Montreal Conference Centre, April 24–27, 2017

- Logan, T., Rankine-Mullings AE, King L., Knight-Madden J., Cunnigham – Myrie C, Scott C. "A preliminary report on a retrospective study of early interventions in sickle cell anaemia." National Health Research Conference, Ministry of Health, Jamaica Conference Centre, Kingston, Jamaica. November 24–25, 2016.
- Little, C., Wisdom-Phipps, M., Rankine-Mullings, A., Drummond, H. and The EXTEND team. "EXpanding Treatment for Existing Neurological Disease (EXTEND): International Research Collaboration to Improve the Treatment of Sickle Cell Anaemia." IACRN 8th Annual Conference. October 24–26, 2016.

Invited Lectures

- Asnani M. "Communication Skills in the Doctor-Patient Relationship."
 Invited lecture to Family Medicine Preceptors' workshop. Department of Family Medicine, FMS, UWI. September 11, 2016.
- Asnani M. "Pregnancy in Sickle Cell Disease/Newborn screening in Jamaica". Invited lecture to midwives for PROMAC programme, Jamaica Conference Centre, Kingston, Jamaica. October 27, 2016.
- Asnani M. "Management of Sickle Cell Disease in Primary Care."
 Invited lecture to Family Medicine Faculty and Residents. Department of Family Medicine, Faculty of Medical Science, UWI. January 25, 2017.
- Asnani M. "The Role of Hydroxyurea in the management of Sickle Cell Disease." Invited lecture at Advancement in Medicine Conference 2017. May Pen Hospital, Jamaica. February 27–March 1, 2017
- Asnani M. "Pregnancy in Sickle Cell Disease/Newborn screening in Jamaica." Invited lecture to Primary Care Physicians for PROMAC programme, via Skype to NERHA, Ocho Rios, Jamaica. March 30, 2017.

- Asnani M. "Pregnancy in Sickle Cell Disease/Newborn screening in Jamaica." Invited lecture to Primary Care Physicians for PROMAC programme, Kingston, Jamaica. April 4, 2017.
- **Asnani M**. "Systematic Reviews and Meta-analyses." Invited lecture to UWISON Annual Research Internship Programme. June 7, 2017.
- Knight-Madden J. "Pulmonary Complications of Sickle Cell Disease."
 Leila Wynter Conference Bustamante Hospital for Children.
 November, 2016
- Knight-Madden J. "Newborn Screening in Jamaica and the Caribbean, 3rd Global Congress on Sickle Cell Disease." India, February 2017
- Knight-Madden J. "Sickle cell disease: Pain." The Society for Inherited and Severe Blood Disorders (T'DAD & T'GO), Inherited Blood Disorders Symposium. Trinidad and Tobago, March, 2017
- Knight-Madden J. "Management of Sickle Cell Disease during Pregnancy." The Society for Inherited and Severe Blood Disorders (T'DAD & T'GO), Inherited Blood Disorders Symposium. Trinidad and Tobago, March, 2017.
- Knight-Madden J. "Newborn Screening for Sickle Cell Disease during Pregnancy." The Society for Inherited and Severe Blood Disorders (T'DAD & T'GO), Inherited Blood Disorders Symposium. Trinidad and Tobago, March, 2017.
- **King, LG.** Hydroxyurea: "The Jamaica Experience." Invited lecture to Health Care providers. Leila Wynter Conference Bustamante Hospital for Children November 7th, 2016.
- King, LG. "SCD in Jamaica: A Tale of Research, Advocacy & Collaboration." Hydroxyurea St. Maarten Sickle Cell Association. November 17, 2016
- King, LG. "Optimal Management of SCD Adults and Paediatrics."
 Sickle Cell Conference, St. Thomas, USVI. May 26th, 2017.
- Simmonds Patrice L. "Stress Management and Mental Health."
 Oral presentation at National Commercial Bank Knowledge Series.
 Kingston, Jamaica. January 25th 2017.
- Simmonds Patrice L. "The Role of Hydroxyurea in the Management

of Sickle Cell Disease." Oral presentation at Jamaica Orthopedic Association Conference. UWI, Mona. February 2017.

PUBLICATIONS

Book Chapters

- Govia, I. O., Etowa, J. B., & Ordúñez García, P. (2017). "Monitoring progress to achieve healthequity". In Legacy of the Crossing: Life, Death, and Triumph among Descendants of the World's Greatest Forced Migration. Ed. T. LaViest. New York, Diasporic Africa Press. Chapter 20
- Brown, D., Govia, I. O., Ferguson, T., & Boothe, M. (2017).
 "Chronic non-communicable diseases in the Anglophone Caribbean".
 Legacy of the Crossing: Life, Death, and Triumph among Descendants of the World's Greatest Forced Migration. Ed. T. LaViest. New York: Diasporic Africa Press. Chapter 6

Referred Journals

- Asnani M, Knight Madden J, Reid M, Greene L, Lyew-Ayee P. "Socio-environmental exposures and health outcomes among persons with sickle cell disease". *Plos One.* 12, 4 (2017). E0175260. https://doi.org/10.1371/journal.pone.0175260
- 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". *Cochrane Database of Systematic Reviews*. 10. (2016). Art. No.: CD011175. DOI: 10.1002/14651858.CD011175.pub2.
- Featured Review: http://www.cochrane.org/news/featured-review-interventions-patients-and-caregivers-improve-knowledge-sickle-cell-disease-and Podcast: http://www.cochrane.org/podcasts/10.1002/14651858.CD011175.pub2
- Baker-Henningham H, Vera-Hernandez M, Alderman H, Walker
 S. "Irie Classroom Toolbox: a study protocol for a cluster-randomised

- trial of a universal violence prevention programme in Jamaican preschools". *Mental Health Protocol.* 6, 5 (2016):e012166
- Campbell CP, Raubenheimer D, Badaloo AV, Gluckman PD, Martinez C, Gosby A, Simpson S, Osmond C, Boyne M, Forrester T. "Developmental contributions to macronutrient selection: a randomized controlled trial in adult survivors of malnutrition". Evolution, Medicine and Public Health. 2016, 1; (2016):158–169.
- Sheppard A, Ngo S, Li X, Boyne M, Thompson D, Pleasants A, Gluckman P., Forrester T. "Molecular Evidence for Differential Long-term Outcomes of Early Life Severe Acute Malnutrition". EBioMedicine. 18 (2017):274–80.
- Ehret GB, Ferreira T, Chasman DI, Jackson AU, Schmidt EM, Johnson T, Reid M, McKenzie C et al. "The genetics of blood pressure regulation and its target organs from association studies in 342,415 individuals". *Nature Genetics*. 48, 10(2016):1171–1184.
- Ferguson TS, Younger-Coleman NOM, Tulloch-Reid MK, Hambleton IR, Francis DK, Bennett NR, McFarlane SR, Bidulescu A, MacLeish MY, Hennis AJM, Wilks RJ, Harris EN, Sullivan LW. "Educational Health Disparities in Cardiovascular Disease Risk Factors: Findings from Jamaica Health and Lifestyle Survey 2007-2008". Frontiers in Cardiovascular Medicine. 4, 28 (2017). doi: 10.3389/fcvm.2017.00028.
- Maloney KC, Ferguson TS, Stewart HD, Myers AA, De Ceulaer K.
 "Clinical and immunological characteristics of 150 systemic lupus
 erythematosus patients in Jamaica: a comparative analysis". *Lupus*.
 (2017) Jan 1:961203317707828. doi:10.1177/0961203317707828.
- Bidulescu A, Ferguson TS, Hambleton I, Younger-Coleman N, Francis D, Bennett N, Griswold M, Fox E, MacLeish M, Wilks R, Harris EN, Sullivan LW. "Educational health disparities in hypertension and diabetes mellitus among African descent populations in the Caribbean and the USA: a comparative analysis from the Spanish town cohort (Jamaica) and the Jackson heart study (USA)". *International Journal for Equity in Health.16*, 33 (2017). doi: 10.1186/s12939-017-0527-9.
- Ueda P, Woodward M, Lu Y, Hajifathalian K, Al-Wotayan R, Aguilar-

Salinas CA, Ahmadvand A, Azizi F, Bentham J, Cifkova R, Di Cesare M, Eriksen L, Farzadfar F, **Ferguson TS**, Ikeda N, Khalili D, Khang YH, Lanska V, León-Muñoz L, Magliano DJ, Margozzini P, Msyamboza KP, Mutungi G, Oh K, Oum S, Rodríguez-Artalejo F, Rojas-Martinez R, Valdivia G, **Wilks R**, Shaw JE, Stevens GA, Tolstrup JS, Zhou B, Salomon JA, Ezzati M, Danaei G. "Laboratory-based and office-based risk scores and charts to predict 10-year risk of cardiovascular disease in 182 countries: a pooled analysis of prospective cohorts and health surveys". *Lancet Diabetes & Endocrinology*. 5, 3 (2017). 196–213. doi: 10.1016/S2213-8587(17)30015-3.

- Reid GP, Williams EW, Francis DK, Lee MG. "Acute pancreatitis: A
 7 year retrospective cohort study of the epidemiology, aetiology and
 outcome from a tertiary hospital in Jamaica". Annals of Medicine &
 Surgery (London). 20 (2017):103-108. doi:10.1016/j.amsu.2017.07.014.
- Forsythe-Brown, I., Taylor, R. J., Chatters, L. M., **Govia, I. O.**, & Jackson, J. S. (2017). "Kinship support in Jamaican families in the United States and Jamaica". *Journal of African American Studies*, 21, 2 (2017): 187-202 DOI: 10.1007/s12111-017-9355-7
- Ataga KI, Kutlar A, Kanter J, Liles D, Cancado R, Friedrisch J, Guthrie TH, Knight-Madden J, Alvarez OA, Gordeuk VR, Gualandro S, Colella MP, Smith WR, Rollins SA, Stocker JW, Rother RP. "Crizanlizumab for the Prevention of Pain Crises in Sickle Cell Disease." The New England Journal of Medicine. 376, 5 (2017):429–439.
- Mathias RA, Taub MA, Gignoux CR, Fu W, Musharoff S, O'Connor TD, Vergara C, Torgerson DG, Pino-Yanes M, Shringarpure SS, Huang L, Rafaels N, Boorgula MP, Johnston HR, Ortega VE, Levin AM, Song W, Torres R, Padhukasahasram B, Eng C, Mejia-Mejia DA, Ferguson T, Qin ZS, Scott AF, Yazdanbakhsh M, Wilson JG, Marrugo J, Lange LA, Kumar R, Avila PC, Williams LK, Watson H, Ware LB, Olopade C, Olopade O, Oliveira R, Ober C, Nicolae DL, Meyers D, Mayorga A, Knight-Madden J, Hartert T, Hansel NN, Foreman MG, Ford JG, Faruque MU, Dunston GM, Caraballo L, Burchard EG, Bleecker E, Araujo MI, Herrera-Paz EF, Gietzen K, Grus WE, Bamshad M, Bustamante CD, Kenny EE, Hernandez

- RD, Beaty TH, Ruczinski I, Akey J; CAAPA, Barnes KC. "A continuum of admixture in the Western Hemisphere revealed by the African Diaspora genome". *Nature Communications*. 7:12522 (2016): doi:10.1038/ncomms12522.
- Johnston HR, Hu YJ, Gao J, O'Connor TD, Abecasis GR, Wojcik GL, Gignoux CR, Gourraud PA, Lizee A, Hansen M, Genuario R, Bullis D, Lawley C, Kenny EE, Bustamante C, Beaty TH, Mathias RA, Barnes KC, Qin ZS, Knight-Madden J, CAAPA Consortium. "Identifying tagging SNPs for African specific genetic variation from the African Diaspora Genome". Scientific Reports. 7:46398 (2017). doi: 10.1038/srep46398.
- Kessler MD, Yerges-Armstrong L, Taub MA, Shetty AC, Maloney K, Jeng LJ, Ruczinski I, Levin AM, Williams LK, Beaty TH, Mathias RA, Barnes KC; Knight-Madden J, Consortium on Asthma among African-ancestry Populations in the Americas (CAAPA), O'Connor TD. "Challenges and disparities in the application of personalized genomicmedicine to populations with African ancestry". Nature Communications. 7:12521 (2016): doi: 10.1038/ncomms12521.
- Lu Y, Day FR, Gustafsson S, Buchkovich ML, Na J, Bataille V, McKenzie C et al. "New loci for body fat percentage reveal link between adiposity and cardiometabolic disease risk". *Nature Communications*. 7, (2016) 10495.
- van Leeuwen EM, Sabo A, Bis JC, Huffman JE, Manichaikul A, Smith AV, McKenzie C et al. "Meta-analysis of 49 549 individuals imputed with the 1000 Genomes Project reveals an exonic damaging variant in ANGPTL4 determining fasting TG levels". *Journal of Medical Genetics*. 53, 7(2016):441–449.
- Justice AE, Winkler TW, Feitosa MF, Graff M, Fisher VA, Young K,
 McKenzie C et al. "Genome-wide meta-analysis of 241,258 adults accounting for smoking behaviour identifies novel loci for obesity traits". Nature Communications. 8(2017):14977.
- Liang J, Le TH, Edwards DRV, Tayo BO, Gaulton KJ, Smith JA,
 McKenzie C., et al. "Single-trait and multi-trait genome-wide

- association analyses identify novel loci for blood pressure in Africanancestry population"s. *PLoS Genetics*.13, 5 (2017):e1006728.
- Rankine-Mullings AE, Little CR, Reid ME, Soares DP, Taylor-Bryan C, Knight-Madden JM, Stuber SE, Badaloo AV, Aldred K, Wisdom-Phipps ME, Latham T, Ware RE. "EXpanding Treatment for Existing Neurological Disease (EXTEND): An Open-Label Phase II Clinical Trial of Hydroxyurea Treatment in Sickle Cell Anemia." JMIR Research Protocols. 5,3 (2016):e185.DOI: 10.2196/resprot.5872.PMID: 27619954
- Morrison BF, Aiken W, Mayhew R, Gordon Y, Reid M. "Prostate Cancer Screening in Jamaica: Results of the Largest National Screening Clinic". *Journal of Cancer Epidemiology*. 2016 (2016):2606805.
- Leake PA, **Reid M**, Plummer J. "A case series of cholecystectomy in Jamaican sickle cell disease patients The need for a new strategy". *Annals of Medicine and Surgery (London)*. 15(2017):37–42.
- Bhatt-Poulose K, James K, **Reid M**, Harrison A, **Asnani M**. "Increased rates of body dissatisfaction, depressive symptoms, and suicide attempts in Jamaican teens with sickle cell disease". Paediatric Blood & Cancer.63, 12 (2016) 2159–2166.
- Thompson DS, Younger-Coleman N, Lyew-Ayee P, Greene LG, Boyne MS, Forrester TE. "Socioeconomic factors associated with severe acute malnutrition in Jamaica". *PLoS One.* 12, 3 (2017):e0173101. doi: 10.1371/journal.pone.0173101.
- Figueroa JP, Harris MA, Duncan JP, Tulloch-Reid MK. "Hypertension Control: the Caribbean Needs Intervention Studies to Learn How to Do Better". *The West Indian Medical Journal*. 1,66 (2017): DOI: 10.7727/wimj.2017.073
- Sumner AE, Duong MT, Bingham BA, Aldana PC, Ricks M, Mabundo LS, Tulloch-Reid MK, Chung ST, Sacks DB. "Glycated Albumin Identifies Prediabetes Not Detected by Hemoglobin A1C: The Africans in America Study". Clinical Chemistry. 62, 11 (2016): 1524–1532.
- Black MM, Walker SP, Fernald LCH, Andersen CT, DiGirolamo

- AM, Lu C, McCoy DC, Fink G, Shawar YR, Shiffman J, Devercelli AE, Wodon QT, Vargas-Barón E, Grantham-McGregor S; Lancet Early Childhood Development Series Steering Committee. "Early childhood development coming of age: science through the life course". *The Lancet*. 389,10064 (2017):77-90. doi: 10.1016/S0140-6736(16)31389-7.
- Walker SP. The Philani Mentor Mothers Intervention: neighbourhood wide impact on child growth in Cape Town's peri-urban settlements. *Vulnerable Children and Youth Studies*, 11:3 (2016) 221-222, DOI: 10.1080/17450128.2016.1220658 (invited commentary)
- Walker S. "Empowering parents". Development and Cooperation, e-Paper no. 7 2017, (2017): 14 https://www.dandc.eu/sites/default/files/pdf_files/2017-08-dc.pdf
- Brown CR, Hambleton IR, Sobers-Grannum N, Hercules SM, Unwin N, Harris NE, Wilks R, MacLeish M, Sullivan L, Murphy MM; U.S. Caribbean Alliance for Health Disparities Research Group (USCAHDR). "Social determinants of depression and suicidal behaviour in the Caribbean: a systematic review". BMC Public Health. 17, 1 (2017):577. doi: 10.1186/s12889-017-4371-z.
- Brown CR, Hambleton IR, Hercules SM, Alvarado M, Unwin N, Murphy MM, Harris EN, Wilks R, MacLeish M, Sullivan L, Sobers-Grannum N; U.S. Caribbean Alliance for Health Disparities Research Group (USCAHDR). "Social determinants of breast cancer in the Caribbean: a systematic review". *International Journal of Equity in Health*. 16, 1 (2017):60. doi: 10.1186/s12939-017-0540-

Technical Reports:

Harrison, Asnani, M., Chang S., James C., Royal Thomas T, Pierre R, Knight-Madden J. "Resilience in Jamaican Adolescents Living With a Chronic Illness. Report to UNICEF." October 2016.

PUBLIC SERVICE

Angela Rankine-Mullings

- Member, Jamaica Pain Collaborative
- Member, Lyndhurst Methodist Church Health Fair August 13, 2017
- Member, Church Women United Health Fair April, 2017

Carolyn Taylor Bryan

- Member, Medical Association of Jamaica
- Member, Paediatric Association of Jamaica
- Member, National Infant and Young Child Feeding Committee

Damian Francis

- Member, WHO Cochrane Cornell Summer Institute Faculty, Cornell University
- Member, Pan American Health Organization / World Health Organization
- Member, World Health Organization Expert Advisory Panel on Drug Evaluation
- Member, Essential Medicine List Strategic Fund List Expert
- Member, Caribbean Public Health Agency Research to Policy Evidence Portal Committee
- Member, Jamaica Association of Professionals in Nutrition and Dietetics (JAPINAD) Standards and Regulations
- Member, Jamaica Food Industry Taskforce

Ishtar Govia

- Member, Jamaica Mental Health Advocacy Network, Executive Board Member
- Member, Alzheimer's Associations of the Caribbean, Scientific Committee Co-Chair
- Member, Caribbean Alliance of National Psychological Associations (CANPA)

- Member, At-Large of the Executive Council
- Member, CANPA Caribbean Regional Conference of Psychology Standing Committee, Co-Chair
- Member, CANPA Publications and Communications Standing Committee, Co-Chair

Jennifer Knight-Madden

- Participant in the Pan American Health Organization Consultation for the Development of the 2017–2022 PAHO/WHO Country Cooperation Strategy(CCS), Jamaica, May, 2017.
- Participant in American Thoracic Society Workshop on Clinical and Research Priorities in Sickle Cell Lung Disease, Washington DC, May 2017.
- Participant in H3ABioNet 2nd Sickle Cell Disease Ontology Working Group- 2nd Workshop. Cape Town May, 2017.
- Sickkids Caribbean Initiative Co-chair Sickle Cell Disease Working Group
- Member, Ministry of Health Sickle Cell Technical Working Group
- Member, Caribbean Network of Researchers in Sickle Cell Disease and Thlassemia, Vice President

Marshall Tulloch-Reid

- Member, Caribbean Endocrine Society Immediate Past President
- Member, Support group for children with diabetes and their families

Marvin Reid

- Member, Research Advisory Committee, Caribbean Public Health Agency (CARPHA)
- President, Caribbean College of Family Physician

Monika Asnani

 Member, Term Graduate Faculty Appointment. Duke University Graduate School. 2017–2019

- Member, Co-Chair, Caribbean Primary Care Research group (CAPCRG), Caribbean College of Family Physicians. 2015–Present
- Member, Caribbean Representative to Worldwide Initiative on Social Studies in Hemoglobinopathies (WiSSH)
- Board Member of Caribbean Network of Researchers in Sickle Cell Disease and Thalassemia
- Academic Editor, Plos One Journal
- Vice President, Indian Cultural Society in Jamaica

Novie Younger-Coleman

Member, Jamaica Statistical Society

Patrice Simmonds

 Member, Medical Manager for Netball Jamaica (The Sunshine Girls) and Kingston and St. Andrew Football (KSAFA)

Rainford Wilks

- Member, Jamaica Ministry of Health Essential National Research Committee
- Board Member, Heart Foundation of Jamaica
- Chairman, Gibson-McCook Relays
- Member, Essential National Research Committee

Shelly McFarlane

- Member, WHO/TDR Latin American and Caribbean Regional Training Network
- Member, University Diabetes Outreach Programme
- Member, Cannabis Licencing Authority Science & Research Committee
- Member, Jamaica Statistical Society
- Member, International Society for Paediatric & Adolescent Diabetes
- Board Member, World Walk Foundation
- Member, Kiwanis Club of Constant Spring and Division 23E -

INSTITUTE AND RESEARCH CENTRES

Kiwanis Clubs of Eastern Canada & Caribbean

- Member, Support group for children with diabetes and their families
- Member, Jamaica Ministry of Health National Health Research Committee

Susan Chang-Lopez

- Member, Early Childhood Commission
- Member, Franciscan Ministries Classical Harmony Committee

Susan Walker

Member, Pan American Health Organization / World Health
 Organization – Advisory Committee on Health Research

Trevor Ferguson

Member, Association of Consultant Physicians Executive

INCOME GENERATION

Monika Asnani

• Title: Gene Transfer for Patients with Sickle Cell Disease Using a Gamma Globin Lentivirus

Vector: An Open Label Phase I/II Pilot Study. Effective Nov 2016.

Funding Agency: Cincinnati Children's hospital Medical Centre PI: Punam Malik.

Co-Investigator: Monica Asnani

Value: US \$70,000

Period: November 2016 (15 years project)

Jennifer Knight-Madden

 Title: A Phase 3, Double-blind, Randomized, Placebo-controlled, Multicenter Study of BT440 Administered Orally to Patients with Sickle Cell Disease

Funding Agency: Global Blood Therapeutics, Inc.

Co-Investigator: Jennifer Knight-Madden

Value: estimated income USD\$70,000

Period: 2016-2018

Susan Walker

• Title: The gains at age 30 years from the Jamaica supplementation and stimulation study. 2016–2018.

Investigators: S. Walker, S. Chang, S. Grantham-McGregor, P. Gertler, J Heckman, C. Vermeersch

Funder: World Bank Strategic Impact Evaluation Fund US\$399,491

• Title: Sustainability of benefits from parenting interventions in health centres, 2017

Investigators: S Walker, S Chang, J Smith, F Lopez-Boo

Funder: Inter-American Development Bank, US\$ 90,000

Ishtar Govia

• Title: Exploring dementia health and social care systems and services across the Caribbean diaspora. 2016–2017.

Investigators: Reena Lasrado, Dawn Edge, Ishtar Govia, Maria Zubair, Louise Tanner, Polly Kaiser, Veena Lasrado

Funder: Manchester Institute for Collaborative Research on Ageing (MICRA), GBP 5500

• Title: Improving Access to Mental Health Services through Collaborations with Faith-Based and Spirituality-focused Organisations and Leaders

Investigators: Dawn Edge, Ishtar Govia

Funder: Biotechnology and Biological Sciences Research Council (BBSRC) Global Challenges Research Fund (GCRF), GBP 10, 000

 Title: Global Diet and Activity Research (GDAR) Group and Network 2017–2019

INSTITUTE AND RESEARCH CENTRES

Investigators: Nicholas Wareham, Nigel Unwin (Primary Applicants – University of Cambridge). UWI partners – MK Tulloch-Reid, TA Samuels, I Hambleton

Funder: National Institute for Health Research (UK) GBP 2.0M

Start Date: June 1, 2017

Marvin Reid

Title: EXpanding Treatment for Existing Neurological Disease (EXTEND)

 an open label Phase II clinical trial to investigate the effects of
 hydroxyurea on the TCD velocities of children with sickle cell anaemia
 and a conditional or abnormal pre-treatment TCD velocity.

Funder: Cincinnati Children's Medical Hospital; USD \$180860 (2015–2017)

• Title: JAM6012 "Re-Establishing Nuclear Medicine Capacity In Jamaica".

Funder: IAEA EU 800,000 (2014–2017)

 Title: Microelements in Life Expectancy and Ageing (MILEAGE) – Project Number: 734931

Funder: European Union, (2017–2021)

Clinical Trials with Industry

 Title: A Multi-Centre, Phase II, Randomized, Double-Blind, Placebo-Controlled Study to Explore Efficacy and Safety of Sevuparin Infusion for the Management of Acute Vaso-Occlusive Crisis (VOC) in Subjects with Sickle-Cell Disease (SCD"

Funder: MODUS Pharmaceuticals

• Title: United Cannabis / Cannabinid Resarch and Development Pharmacokinetic Kinetic Study On The Prana Line Of Bionutrients. An open-label, Single-centre, Crossover Clinical Trial to Assess the Pharmacokinetic (PK) Properties and Tolerability of Multiple Oral Doses of PRANA bio nutrients.

Funder: United Cannabis USD180,000

Sherine Whyte

• Title: The assessment of the Prevalence of Environmental Enteric Dysfunction and the Relationship with linear Growth in Urban Jamaican Infants.

Funder: IAEA Euro €35,000.00.

• Title: The Determination of Amino Acid requirement in persons with sickle cell disease.

Funder: CARPHA Grant Fund US\$5,000

Asha Badaloo

• Title: Improving the quality of life of older people through the early diagnosis of sarcopenia in Latin America & the Caribbean- a regional project.

Funding Agency: IAEA Contract No: RLA/6/073

Value: €855,000.00 (for 11 countries)

Period of Award: September 2014–October 2017

- Title: Bioavailability of protein from the common bean in Jamaican diets. A coordinated research project
- Funding Agency: IAEA contract No. 19284, Value: €50,000.00

Period of Award: 2015-2020

Marshall Tulloch-Reid (PI) & Asha Badaloo (Co-PI)

• Title:Promoting healthy growth in children: Assessing the role of parenting and early life influences on body composition and energy expenditure: National project.

Funding Agency: IAEA. Value: €228,000.00

Period of Award: 2015-2017

Carolyn Taylor-Bryan

 Title: Assessment of risk factors for childhood obesity and the impact of an educational intervention on infant feeding on growth and body composition: A co-ordinated Research Project.

INSTITUTE AND RESEARCH CENTRES

Funding Agency: IAEA contract No. 22428 Value: €50,000.00

Period of Award: 2017–2022

STUDENTS

MSc Nutrition

Shanique Williamson

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