

DEPARTMENT OF BASIC MEDICAL SCIENCES



Professor Paul D. Brown, BSc, MPhil, PhD *UWI*
Head of Department

WORK OF THE DEPARTMENT

This academic year started with a change in Headship of the Department as a result of Dr. Andrew Pearson completing his three-year term of office. With the Departmental QA Review and CAAM-HP Accreditation Review completed, the task of formalizing and initiating the action items began in earnest with the re-institution of the governance structure to oversee the work of the Department. Professor Jean-Pierre Louboutin (Anatomy), Dr. R. Lisa Lindo (Biochemistry), Dr. Maxine Gossell-Williams (Pharmacology), Dr. Carron Gordon (Physical Therapy), and Dr. Lauriann Young-Martin (Physiology) were appointed as Section Heads as we sought to establish a succession plan for the Department. The Management Committee comprised the Section Heads, Programme Directors, Chief Lab Technologist, Laboratory Manager and the Senior Administrative Assistant.

To assist with the forward move of the department, we formulated a 5-year strategic plan which covered 5 basic areas: Curriculum, Research, Staff, Postgraduate programmes, and Infrastructure. We continue to host large numbers of students in discipline-specific courses in the Faculty of Science and Technology (BSc degree) and in the Faculty of Medical Sciences (MBBS/DDS, BMedSci, Physical Therapy and the new PharmD programme). Coupled with these are heavy teaching responsibilities by staff and engaged student supervision, particularly for undergraduate research projects. We have considered that to assist the process, there must be more focus on technology to enhance discipline-specific teaching with establishment of a Multimedia Technology Unit, and possibly the introduction of short/modular courses. It must be considered that with such a varied programme base, there will be diverse and highly specialized research within the disciplines. In fact, we have to redefine what makes Basic Sciences distinctive in the 21st century context. Consequently, we encourage the formation of research groups, with emphasis on cross-disciplinary research projects, which might have greater success for attracting funding.

STAFF AWARDS AND PROMOTIONS

- **Dr. Jean-Pierre Louboutin** was promoted to Professor in September 2016.
- **Dr. Paul Brown** was promoted to Professor effective May 31, 2017.
- **Dr. Paul Brown** was elected to the inaugural Council on Microbial Sciences (COMS) of the American Society for Microbiology (ASM).
- **Professor Paul Brown** achieved the following between August 1, 2016 and March 31, 2017
 - Appointed Head of Department (August 1, 2016)
 - Appointed Deputy Dean, Allied Health (August 1, 2016)
 - Principal's Research Award for Best Research Publication (article), Faculty of Medical Sciences for 2015, UWI, Mona [Multiple antibiotic resistance, fitness and virulence potential in respiratory isolates of *Pseudomonas aeruginosa* from Jamaica. *J Med Microbiol* 65 (4), 261–271]

Department of Basic Medical Sciences

- Elected as International Member (at Large), Council on Microbial Sciences (COMS), American Society for Microbiology (ASM) (March 1, 2017)
- Elected as Vice-Chair of ASM COMS (March 31, 2017)
- **Dr. Stacy Stephenson** completed her Doctor of Philosophy degree in Molecular Biology with High Commendation and graduated in November 2016.
- **Professor Dalip Ragoobirsingh** was joint recipient of the 2017 CARICOM Science Award. The CARICOM Science Award is a joint effort between CARISCIENCE and the CARICOM Secretariat and is meant to give recognition and visibility to outstanding scientific achievements made by individuals from the CARICOM countries.

The Department of Basic Medical Sciences would like to congratulate **Dr. Simone Badal** on the publication of her text book *Pharmacognosy: Fundamentals, Applications and Strategies*. Contributors from the Department of Basic Medical Sciences are as follows: Drs. Icolyn Amarakoon, Jacqueline Campbell, Denise Daley, Lowell Dilworth, Chukwuemeka Nwokocha, Marcia Roye, Dewayne Stennett and Sophie Turfus.

- **Dr. Stacy Stephenson-Clarke** on her recent appointment as American Society for Microbiology (ASM) Young Ambassador of Science.
- **Mrs. Monique Reboe-Benjamin** was appointed to the post of Scientific Officer effective May 1, 2017.
- **Dr. Rachael Irving** submitted a proposal to host a seminar on “Sport Meet Science in London: Jamaica’s Pursuit for Greatness”. The University of the West Indies with the support of the Centre for Global Affairs, UWI and the University of Manchester, UK will be hosting “Sports, Wellbeing and Commerce: A London 2017 Forum for Academics, Athletes, their Handlers, the Caribbean Diaspora, Investors and Students” to be held at the University of East London, UK on July 29–30, 2017. The Dean, FMS gave US\$1,000.00 towards this initiative.

- **Dr. Sharmella Roopchand-Martin** pursued a MSc. Degree in Biomedical Ethics, Clarkson University, New York in June 2017.
- **Dr. Sharmella Roopchand-Martin** did an internship in Bioethics at The Centre for Bioethics, The National Institute of Health, Bethesda, Maryland, USA. She was the first candidate from the region to have been accepted for this internship.
- **Dr. Chukwuemeka Nwokocha** received the following awards:
Principal's Award for Best Research Publication, for the publication titled, "Treatment of Rats with Apocynin has Considerable inhibitory effects on Arylamine N-Acetyltransferase activity in the Liver"
Principal's Award for Most Outstanding Research Activity for the period under review, 2015/2016"
- **Dr. Cameil Wilson-Clarke** received the following training
May 2017: Caribbean Research Ethics Education Initiative Proseminar, NIH and Fogarty Grant, Clarkson University, USA and St. George's University, Grenada
May 2017: "Effective Project Planning and Evaluation in Health Research Train the Trainer Course" – UWI-Clinical Epidemiology Unit, Epidemiology Research Unit, Caribbean Institute for Health Research University of the West Indies with CIDEIM/TDR/UNICEF/UNDP/World Bank/WHO/PAHO
November 2016: Ethical and Regulatory Aspects of Clinical Research Course, at the Department of Bioethics, National Institute of Health (NIH) Clinical Center, Bethesda, Maryland
October 2016: "Innovative Teaching Techniques: Lessons from a Basement Studio" Workshop – Centre for Excellence in Teaching and Learning, UWI, Mona.
- **Ms. Peta-Gaye Thomas** won the Professor Manley West Award for research project in Pharmacology. Title: Cannabis withdrawal lowers sleep efficiency and motor activity in schizophrenia patients prescribed risperidone.
- **Dr. Lisa Lindo** – UWI/Guardian Group Premium Teaching Award, 2016 Outstanding Nominee

PAPERS PRESENTED AT SCIENTIFIC MEETINGS

- Taite, D.R. and Ali, M.K. (2016). E-cigarette (EC) induced Zebrafish embryo toxicity at conference. Health is a Relay: Traditional & non-traditional tracks held on, November 24–25, 2016 at Jamaica Conference Center, Kingston, Jamaica.
- Stephenson S., Brown P.D. (2016). Effect of Dam methylation on gene regulation and mammalian cell attachment in uropathogenic *Escherichia coli*. 7th Clinical Diagnostics & Research online conference, November 2–3 2016. <http://www.labroots.com/virtual-event/clinical-Diagnostics-2016>.
- Gordon, C., Porter R, Thomas, S, Dawes M, Newell C. (2016). Neighbourhood walkability and physical activity in Harbour View Community, Kingston, Jamaica. *Presented at the Faculty of Medical Sciences Annual Research Conference, November 2016*.
- Thomas-Brown, P, Martin, J., Sewell, C., Abel, W., Gossell-Williams, M. (2016). Cannabis withdrawal lowers sleep efficiency and motor activity in schizophrenia patients prescribed risperidone. *In: Proceedings of the 25th Annual Research Conference held November 10th, 2016 University of the West Indies, Mona Campus. West Indian Medical Journal* 65 (Suppl): 29, ABSTRACT O-13.
- Kennedy-Dixon, T., Gossell-Williams, M., Cooper, M., Trabelsi, M., and Vinjamuri, S. (2017). Evaluation of radiopharmaceutical adverse reaction reports to the British Nuclear Medicine Society for the period 2007 to 2016: United Kingdom Radiopharmacy Group Workshop, Bourneville, Birmingham, England held May 11, 2017 at The Beeches Management Centre, Bournville, Birmingham.

SPECIAL PRESENTATIONS AND INVITED LECTURES

- **Dr. Sophie Turfus** attended the London Toxicology Group summer lectures on June 16, 2017 which were held at the UK Chamber of Shipping in London, UK.

- Dr. Simone Sandiford was invited to present “How studying the immune system of mosquitoes can help combat diseases” to colleagues at SODECO on June 2nd, 2017.
- **Dr. Sophie Turfus** was invited to present “Pharmacogenetics: Opportunities and Challenges”. Continuing Education Seminar for Pharmacists (theme: Optimizing Pharmacy Practice-The New Era). Jamaica Pegasus Hotel, Kingston, Jamaica, October 30th 2016.
- **Dr. Sophie Turfus** was invited to serve the Faculty of Humanities and Education, Department of Language, Linguistics and Philosophy (DLLP) as a panelist in the UWI/UNESCO Philosophy Day: “Ethics as a Guide to Right Action: The Case of Doping.” The University of the West Indies. Thursday November 17th 2016.

Dr. Sharmella Roopchand-Martin

- December 2016 – Webinar for Clarkson University. Topic: Using The Code of Ethics to Solve Ethical Dilemmas in Physical Therapy Practice. December 2016 – Served as faculty for the Caribbean Public Health Agency (CARPHA) for 3-day training workshop on research ethics conducted in Suriname. April 2017 – Served as faculty for Clarkson University in a one week training programme in Research Ethics held at St. George’s University, Grenada.

Dr. Sonja Williams

- September 6, 2016 – “Preserving Functional Independence in Older Adults: The Caregiver’s Contribution”. Short presentation to caregivers participating in the a training course for caregivers of older adults that is offered by the Mona Ageing Centre, UWI, Mona.
- **Dr. C Gordon** presented at the Ministry of Health Research Conference, November 2017 held in Kingston. “Physical Activity and Health across the Lifespan”.
- **Dr. C Gordon** presented at the Ministry of Education, Monitoring and Evaluation Unit, Staff Development Seminar held in Kingston, June 2, 2017. “Sampling Methods for Mixed Methods Evaluation”.

POSTERS PRESENTED AT SCIENTIFIC MEETINGS

- Valentine, H, Aiken, W, Coard, K, Chin, W. and Badal, S. (2016). Jamaican prostate cell line development: challenges involved. Presented at the 25th Annual Research Conference and Workshop on One Health, One Caribbean. *West Indian Med. J. supplement* 6, 2016, vol 65, Pg 48. November 6th & 9th–11th, Faculty of Medical Sciences, UWI, Mona.
- Delgoda, R, Kandagatla, SK, Ranor, G, Brantley E, Badal S, Francis S, Jacobs H. (2016). Novel quassinoid from Jamaican *Castela macrophylla* blocks induction of cytochrome P450 1 enzymes and luciferase genes. *Planta Medica*, 81:11 Pg P85.
- Young, L.E, Chin-Quee, KP (2016). A comparison between delta-9-tetrahydrocannabinol and a Jamaican marijuana tea extract in an animal model of addiction, *SfN Abstract Viewer*; 77.07; 2016-S-1272-SfN.
- Turfus, S. C, Mansingh, Roopchand-Martin, S. (2016). Supplement-taking habits and knowledge about anti-doping among teenage athletes: a case study of a Kingston inner-city boys' school. 25th Annual Research Conference and Workshop: "One Health, One Caribbean". The University of the West Indies, Jamaica, 6th and 9th-11th November 2016. *West Indian Medical Journal Supplement* 65 (Suppl 6): 1–53 (P-13).
- Katz, N, Hinderer, C, Louboutin, J.P, Bell, P, Tolar, J, Orchard, P.J, Nayal, M, Weng, L, Mesaros, C, de Souza, C.F.M, Dalla Corte, A, Giugliani, R, Wilson, JM. Elevated C.S.F spermine in the neuropathic forms of mucopolysaccharidosis. American Society for Gene and Cell Therapy, 20th Annual Meeting, May 10–13, 2017. Washington, DC, USA.
- Cawich, S. O, Gardner, M.T, Sinanan, A, Naraynsingh, V. Liver surface anatomy: new association with Chilaiditi's syndrome. 16th Annual Symposium of the American Hepatopancreatobiliary Association. March 29–April 2, 2017. Miami, USA.
- Cawich, SO, Gardner, MT, Sinanan, A, Naraynsingh, V (2017).

Liver surface anatomy: new association with Chilaiditi's Syndrome. *HPB (Oxford)*. S1:P187.

- Cawich, SO, Thornton, A, Gardner, MT, Shetty, R, Pearce, NW, Naraynsingh, V. Cadaveric study of accessory sulci on the visceral surface of the liver. Annual Symposium of the American Hepatopancreatobiliary Association March 29–April 2, 2017. Miami, USA.
- Cawich, SO, Thornton, A, Gardner, MT, Shetty, R, Pearce, NW, Naraynsingh, V (2017). Cadaveric study of accessory sulci on the visceral surface of the liver. *HPB (Oxford)*. S1:P164.
- Cawich, SO, Thornton, A, Gardner, MT, Shetty, R, Pearce, NW, Naraynsingh, V (2017). An anatomic study of accessory sulci on the visceral surface of the liver. *JCCS*. 1(S1): 48.
- Cawich, SO, Thornton, A, Gardner, MT, Shetty, R, Pearce, NW, Naraynsingh, V. An anatomic study of accessory sulci on the visceral surface of the liver. Annual Symposium of the Caribbean College of Surgeons. June 14–7, 2017. Montego Bay, Jamaica.
- Francis, L, Edwards, T, Dennie, D, Louboutin, JP. Use of Socratic in tutorials of gross and microscopic anatomy. Research Days UWI Mona Campus, February 1–3, 2017. Kingston, Jamaica.
- Riley, M, Francis, L, Thomas, R, Miguel, D, Lodenquai, P, Barsed, H, Shetty, R, Brown, PL, Gardner, MT, Louboutin, JP. Student response systems (clickers) in Anatomy. Research Days UWI Mona Campus, February 1–3, 2017. Kingston, Jamaica.
- Dennie, D, Louboutin, JP. Inhibition of the chemokine receptor CCR5 in the control of kainic acid-induced neurotoxic injury. Immunity and Inflammation in Epilepsy, 2nd Meeting, October 13–15, 2016, Milano, Italy.
- Louboutin, JP, Dennie, D, Chekmasova, E, Marusich, E, Agrawal, L, Strayer, DS. Targeting CCR5 for neuroprotection and regeneration in experimental seizures. Immunity and Inflammation in Epilepsy, 2nd Meeting, October 13–15, 2016, Milano, Italy.

- Cawich, SO, Gardner, MT, Shetty, R, Naraynsingh, V. Venous drainage patterns of the liver: is it different in the Caribbean population? Annual Symposium of the Caribbean Association of Endoscopic Surgeons. June 15, 2016.
- Garvey-Ramocan, KS, Gardner, MT. The foramen magnum as a determinant of sex in a series of Jamaican crania. Inaugural Conference of the Caribbean Association of Forensic Sciences. Oral Presentation. July 20–22, 2016. Caribbean Association of Forensic Sciences, Supplemental 2016. Kingston, Jamaica.
- Gordon, C., Porter R, Thomas, S, Dawes M, Newell C (2017). Neighbourhood walkability and physical activity in urban communities in Jamaica. Presented at The World Confederation for Physical Therapy Congress, July 2017, Cape Town, South Africa.
- Thompson T., Salmon D., Brown P.D., Ali M. (2016). The Effect of Nicotine on Biofilm Formation and Growth in *Pseudomonas aeruginosa*. UWI Faculty of Medical Sciences 25th Annual Research Conference, Kingston, Jamaica, November 9–11, 2016. *West Indian Med. J.* 65 (Suppl. 6): 27 (Abstract).
- Stephenson S., Brown P.D. (2017). Dam methylation and antibiotic resistance in uropathogenic *Escherichia coli*. 2nd International Caparica Conference in Antibiotic Resistance, Caparica (Lisbon), Portugal. June 12–15, 2017. (Abstract)
- Nelson, A Lewis, C Golding, M McKoy. Investigation of the laxative effects of extracts of the *Spathodea campanulata* plant. In: Proceedings of the 25th Annual Research Conference held November 9–11, 2016, University of the West Indies, Mona Campus. *West Indian Medical Journal* 65 (Suppl 6): 39 Abstract P-8.
- Richards, J, Gibson, R, Richards, N, Thomas-Brown, P, Gossell-Williams, M. Preliminary assessment of the Geriatric Anxiety Scale in the Jamaican population: case study. In: Proceedings of the 25th Annual Research Conference held November 10–11th, 2016 University of the West Indies, Mona Campus. *West Indian Medical Journal* 65 (Suppl 6): 36 Abstract P-2.

- McKenzie, K, Langott, E, Campbell, J, Elliott, V, Gossell-Williams, M. (2016). Prevalence of potential interactions with warfarin use at the University Hospital of the West Indies Cardiology Clinic. In: Proceedings of the 25th Annual Research Conference held November 10-11th, 2016 University of the West Indies, Mona Campus. *West Indian Medical Journal* 65 (Suppl 6): 37 Abstract P-5.
- Turfus, S.C, Delgoda, R, McKenzie, J, Lindsay C, Nelson, R, Ricketts, S, Malcolm, C, Pavy, Mansingh, A and S Roopchand-Martin, S. (2017). An investigation into the use of supplements consumed by Jamaican student athletes: A multi-faceted approach. Caribbean Poison Information Network (CARPIN) 8th Scientific Conference. College of Health Sciences, University of Technology, Jamaica, 25–26 March 2017.
- Malcolm, S, Pavy, C, Lindsay, C and Turfus, S.C. (2017). Screening for the presence of banned and undeclared substances in dietary supplements available in Jamaica. Forensic Science exhibit. UWI Research Days 2017. The University of the West Indies, Mona campus, 1–3 February 2017.
- Scarlett, M, Foote, L and Turfus, S.C. (2017). Analysis of 9-tetrahydrocannabinol (THC) effects on larvae development of the hairy blow flies (*Chrysomya rufifacies*, diptera:Calliphoridae) and flesh flies (diptera: Sarcophagidae). Forensic Science exhibit. UWI Research Days. The University of the West Indies, Mona campus, 1st–3rd February 2017.
- Wilson, T, Gossell-Williams, M, Gordon-Strachan, G, Dasgupta, S, Williams, E, Wilks, R, Goldberg, E.M, Williams-Johnson, J. (2016). Elevated blood pressure in Jamaican patients: an evaluation in the emergency department at the University of the West Indies. In: Proceedings of the 25th Annual Research Conference held November 10-11th, 2016 University of the West Indies, Mona Campus. *West Indian Medical Journal* 65 (Suppl 6): 47 ABSTRACT P-28.
- Dougan, S, Wilson-Clarke, C, Kerr, J, Gossell-Williams, M. (2016). Innovator Biopharmaceuticals and Biosimilars in the Jamaican Healthcare System. In: Proceedings of the 25th Annual Research

Conference held November 10-11th, 2016 University of the West Indies, Mona Campus. *West Indian Medical Journal* 65 (Suppl 6): 47 ABSTRACT P-29.

- Daley, D; Yee, T, Reese, P and Lindo, R.L. (2016). The potential functional foods and nutraceutical products from hypoglycaemic compounds isolated from *Eucalyptus camaldulensis*. The Joint Meeting 16th Annual International Conference on the Science of Botanicals (ICSB) and the American Society of Pharmacognosy (ASP).
- Foster, S.R, Alexander-Lindo, R.L, Dilworth, L.L, Bustamante, J, Omoruyi, F.O (2016). Anti-diabetic properties of combined inositol hexakisphosphate and inositol in streptozotocin-induced type 2 diabetes mellitus Sprague-Dawley Rats. 68th American Association for Clinical Chemistry (AACC) Annual Meeting, Scientific Meeting & Clinical Lab Expo, Pennsylvania Convention Center of Philadelphia, Pennsylvania. July 31–August 4, 2016
- Bartley, T, Reese, P and Lindo, R.L. (2016). Hexane Extract of *Salvia serotina* (Chicken Weed) Displays the Hypoglycaemic Role in Normal Sprague-Dawley Rats. The University of the West Indies, Faculty of Medical Sciences, 25th Annual Research Conference & Workshop. One Health, One Caribbean, Faculty of Medical Sciences Teaching & Research Complex, November, 2016.
- Peddie, DA, Bryan, SJ and Alexander-Lindo, RL. (2017). Hypoglycaemic Potential of *Smilax balbisiana* (Chainy Root) Extracts in Normal, Healthy Sprague-Dawley Rats. University Diabetes Outreach Programme (UDOP). The 23rd Annual International Conference, Diabetes and the Skin: Be Aware April 20–22, 2017. **First Place Prize For Best Poster**
- Lattibeaudiere, K.G, Porter, R.B.R, Alexander-Lindo, R.L (2017). The Effects of Extracts from *Desmodium canum* (Strong Back Weed) on Blood Glucose Concentration and Haemodynamic Parameters in Sprague-Dawley Rats. University Diabetes Outreach Programme (UDOP). The 23rd Annual International Conference, Diabetes and the Skin: Be Aware April 20–22, 2017. **2nd Place Prize For Best Poster**

WORKSHOPS/TRAINING COMPLETED

Dr. Lauriann Young-Martin

- Received the Certificate of Participation for completing workshop on “Using OurVLE to Create Classroom Assessment” organized by CETL, UWI, January 26, 2017.
- Received the Certificate of Participation for completing workshop on “Prezi – Presentations Have Never Been this Good” organized by CETL, UWI, February 2, 2017.
- Completed the “Blackboard Collaborate (BBC) Training for Faculty Trainers, May 8–16, 2017, organized by the UWI Open Campus.

ABSTRACTS

- Dawes M, Newell C, Gordon, C., Hudson G (2016) Neighbourhood walkability and physical activity in the Harbour View Community, Kingston, Jamaica. *West Indian Medical Journal*, vol 65, Suppl 6, pg. 32.
- Foster S R., Omororuyi F O., Dilworth L L., Bustamante J and Alexander-Lindo R L.(2016). The Effect of Inositol Hexakisphosphate and Inositol Combination on Renal and Hepatic Function and Antioxidant Status in Streptozotocin-induced Type 2 Diabetes Mellitus Sprague-Dawley Rats. 6 *West Indian Medical Journal*, 65 (1): 34
- Daley, D; Yee, T, Reese, P and Lindo, RL. The potential functional foods and nutraceutical products from hypoglycaemic compounds isolated from *Eucalyptus camaldulensis*. The Joint Meeting 16th Annual International Conference on the Science of Botanicals (ICSB) and the American Society of Pharmacognosy (ASP). (2016)
- Foster, S.R, Alexander-Lindo, S.R, Dilworth, L.L, Bustamante, J, Omoruyi, F.O. (2016). Anti-diabetic properties of combined inositol hexakisphosphate and inositol in streptozotocin-induced type 2 diabetes mellitus Sprague-Dawley Rats (2016) *Clinical Chemistry* 62 (10): 28 (B003).
- Bartley, T, Reese, P and Lindo, R.L. Hexane Extract of *Salvia serotina*

- (Chicken Weed) Displays the Hypoglycaemic Role in Normal Sprague-Dawley Rats. *West Indian Medical Journal* 65 (Suppl 6): 49
- Lattibeaudiere KG, Porter RBR, Alexander-Lindo R. The Effects of Extracts from *Desmodium canum* (Strong Back Weed) on Blood Glucose Concentration and Haemodynamic Parameters in Sprague-Dawley Rats. *Jamaica Journal of Science & Technology* 27 (2): 36 (2017)
 - Peddie DA., Bryan SJ., and Alexander-Lindo RL. Hypoglycaemic Potential of *Smilax balbisiana* (Chainy Root) Extracts in Normal, Healthy Sprague-Dawley Rats. *Jamaica Journal of Science & Technology* 27 (2): 35 (2017)

PUBLICATIONS

Book

Badal, S, and Delgoda, R, (2016). *An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies*, Pgs 738. ISBN-13: 978-0128021040. Copyright © 2017 Elsevier Inc.

Book Chapters

- Amarakoon, I I, Hamilton, C-L, Mitchell, S A, Tennant, P F and Roye, M E (2017). Biotechnology In: Simone Badal and Rupika Delgoda (Eds) *Pharmacognosy: Fundamentals, Applications and Strategy*. Chap 28: 549–564. Elsevier Academic Press, UK.
- Elufioye, TO, and Badal, S, (2016). Background to Pharmacognosy in *An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies*, Badal S (Ed.) and Delgoda R, p4–12. ISBN 13: 978-0128021040.
- Badal, S, Byfield, G, Brown, MC, Lawrence, Y, Hartley, S, Daley, DK, and Smith, KN., (2016). Areas of science embraced by Pharmacognosy in *An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies*, Badal S (Ed.) and Delgoda R (Ed.), p31–42. ISBN 13: 978-0128021040.

- Badal, S, (2016). Plant metabolites and more treating various ailments: Natural products treating diseases in *An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies*, Badal S (Ed.) and Delgoda R (Ed.), p337–357. ISBN 13: 978-0128021040.
- Daley, DK, Brown, KJ and Badal, S, (2016). Fungal metabolites in *An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies*, Badal S (Ed.) and Delgoda R (Ed.), 2016, p. 413–420. ISBN 13: 978-0128021040.
- Marusich, E, Louboutin, J.P, Strayer, D.S. (2017). Expression of GluR6, a kainate receptor, in human lymphocytes. In Walker, JT and Jones, CM (Eds.). *Biochemistry Research Summaries*, Vol. 2. Nova Science Publishers, Hauppauge, NY. Hardcover and ebook. Chapter 89.
- Louboutin, J.P, Reyes, B.A.S, Agrawal, L, van Bockstaele, E.J, Strayer, D.S (2016). Assessment of apoptosis and neuronal loss in animal models of HIV-1-Associated Neurocognitive Disorder. In E.J. van Bockstaele (Ed.). *Neuromethods 115. Transmission Electron Microscopy Methods for Understanding the Brain*. Humana Press, Springer Verlag, New York, NY, (pp. 217–243).
- Turfus, S.C, Delgoda, R, Picking, D, Gurley. B. (2016). Pharmacokinetics. In Badal, S and Delgoda, R (ed.) *Pharmacognosy: Fundamentals, Applications and Strategy*. Academic Press (Published November 29th 2016).

TECHNICAL REPORTS

- Brown, S, Randle, M., Motilal, L, Amarakoon, I, Tennant, P, Asemota, H (2016). Ed. H. Asemota & P. Guevera. DNA Fingerprinting of Plants: Approaches, Applications and Relevance to the Agricultural Sector in the Caribbean and Latin America. Laboratory Manual for the 2016 UWI-United Nations University Training Programme for Latin American & Caribbean Countries. Submitted to United Nations University BIOLAC November 2016.
- Ragoobirsingh, D. (2016). WHO Guideline Development Group

Nutrition Action 2013–14 et al, WHO Guideline: Fortification of maize flour and corn meal with vitamins and minerals. WHO Press, Geneva: World Health Organization, 5 December 2016. <http://www.who.int/nutrition/publications/guidelines/en/>

- Ragoobirsingh, D. (2016). WHO Guideline Development Group Nutrition Action 2013-14 et al, WHO Guideline: Use of multiple micronutrient powders for point-of-use (home) fortification of foods consumed by infants, young children aged 6–23 months and children aged 2–12 years. WHO Press, Geneva: World Health Organization, 12 December 2016. <http://www.who.int/nutrition/publications/guidelines/en/>

PEER-REVIEWED JOURNAL ARTICLES

- Anglero-Rodriguez YI, Blumberg BJ, Dong Y, Sandiford SL, Pike A, Clayton AM, Dimopoulos G, (2016). A natural Anopheles-associated *Penicillium chrysogenum* enhances mosquito susceptibility to *Plasmodium* infection. *Scientific Reports*.
- Badal, S, Valenzuela, AMM, Zylstrac, D, Huang, G, Vendantam, P, Francis, S, Quitugua, A, Amis LH, Davis, W, Tzeng, TJ, Jacobs, H, Gangemi, GJ, Raner, G, Rowland, L, Wooten, J, Campbell, P, Brantley E, and Delgoda, R, (2017). Glucarubulone glucoside from *Castela macrophylla* suppresses MCF-7 breast cancer cell growth and attenuates benzo[a]pyrene-mediated CYP1A gene induction. *Journal of Applied Toxicology*, 37(7):873-883, doi: 10.1002/jat.3436.
- Salmon, D and Ali, MK (2017). An Assessment of Zebrafish Natural Color Preference and its Modification by Stimuli. *Scientific Pages Mood Disord* 2017, 1(1):17–23.
- Nwokocha C, Palacios J, Simirgiotis MJ, Thomas J, Nwokocha, M, Young L, Thompson R, Cifuentes F, Paredes A, Delgoda R (2017). Aqueous extract from leaf of *Artocarpus altilis* provides cardio-protection from isoproterenol induced myocardial damage in rats: Negative chronotropic and ionotropic effects. *Journal of Ethnopharmacology* 2017; 203, doi: 10.1016/j.jep.2017.03.037.

- Gardner NS, Luke KSJ, Wheatley AO, De La Haye W, Bahado-Singh P, Dilworth D, McGrowder DA, Barton E, Young LE, Salako-Akande A, Morrison E, Eldemire-Shearer D, Lowe H., Asemota H, (2015). Plasma cocaine metabolite and liver CYP450 3A4 isoenzyme levels as indicators of cocaine dependence in rats treated with nutritional supplements. *International Journal of Measurement Technologies and Instrumentation Engineering*, 2015 (July–December); 5(2):29–43.
- Roopchand-Martin, S, Mason, G, Gibson, R (2016). Compliance with Dance Video Gaming: Facilitating and Inhibiting Factors among Jamaican University Students. *Caribbean Journal of Psychology*. 8:1, 38–53.
- D. Ragoobirsingh, E.Morrison and L.Less (2017). Decreased Prevalence of Diabetes Mellitus in Jamaica. *J. National Medical Association*, DOI:<http://dx.doi.org/10.1016/j.jnma.2017.01.008>
- Aronica, E, Bauer, S, Bozzi, Y, Caleo, M, Dingledine, R, Gorter, JA, Henshall, DC, Kaufer, D, Koh, S, Loscher, W, Louboutin, JP, Mishto, M, Norwood, BA, Palma, E, Poulter, MO, Terrone, G, Vezzani, A, Kaminski, RM (2017). Neuroinflammatory targets and treatments for epilepsy validated in experimental models. *Epilepsia*. 58: 27-38.doi: 10.1111/epi.13783
- Francis, L, Lodenquai, P, Gardner, MT (2017) Arteria lusoria, truncus bicaroticus and variant left vertebral artery. *International Journal of Anatomical Variations*. 10: 24–25.
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WORKSHOPS, SEMINARS TRAINING ACTIVITIES

HOSTED BY THE SECTION

- Presentation by Dr Radcliff Goulbourne, Registrar, Pharmacy Council of Jamaica on the laws which will govern the profession as part of Pharmacy Week activities on November 21, 2016.
- Presentation by Ms Shari-Lee Johnson, Assistant Secretary, Pharmaceutical Society of Jamaica on becoming student members of the society and the benefits to be gained on November 21, 2016.

Department of Basic Medical Sciences

- Presentation by Dr. Remi Ojo, PharmD, R.Ph. (of Corporate Pharmacy & Compounding Centre) and Professor Alexander MacGregor, PhD (of Toronto Institute of Pharmaceutical Technology) on “Pharmaceutical Intellectual Property: Enabling a Knowledge Based Industry” on January 19, 2017.
- Doctor of Pharmacy Programme in collaboration with Roche Pharmaceuticals hosted a presentation: Critical Safety Considerations in Pharmaceutical Biotechnology. Dr Christain De Ford Biological Strategy Lead, Roche Central America & Caribbean; Mr Ricard Estrada, Legal Affairs & Compliance Officer, Roche Central America & Caribbean on January 24, 2017.
- Presentation by Mr Shomari Dillon, Medical Representative of IPCA on the role of a Medical Representative held February 18, 2017
- The Section hosted four students from the School of Pharmacy and Pharmaceutical Sciences in a one week Introductory Pharmacy Practice Experience focused on Global Health. The activities included pharmacy practice training at the University Hospital of the West Indies and the UWI Health Centre Pharmacy June 26–July 3, 2017.
- Presentation by Dr. Gina Prescott, Clinical Associate Professor & Director of Global Outreach, University at Buffalo, to members of the Pharmacy Council of Jamaica and Pharmaceutical Society of Jamaica in Immunization on June 27, 2017.
- Presentation by Dr Gina Prescott, Clinical Associate Professor & Director of Global Outreach, University at Buffalo, to the Pharm D students on Careers in Pharmacy: International Perspective on June 27, 2017.

INCOME GENERATION/FUNDING

Research Grants

Dr. Simone Sandiford

Principal’s New Initiative Award - \$JMD 1.5 million – “Establishment of a mosquito surveillance programme for the detection of viruses and other pathogens in various mosquito species in Jamaica”.

Professor Dalip Ragoobirsingh

US\$6945.46 – Post Graduate Research Award for Ms Allison Sugrim project, University of the West Indies, Cave Hill Campus, entitled: Diabetes distress and its relationship to adherence to Medical regimens in Type 2 Diabetes Mellitus in a Caribbean population.

Professor Paul Brown

- Campus Research and Publication Fund (CRPF), UWI, Mona
Role: PI (Awarded to Rochell Davis)
Investigation of the role of the stringent response in stress tolerance and antimicrobial resistance in *Klebsiella pneumoniae* and its contribution to *in vivo* pathogenesis US\$2902
- American Society for Microbiology (ASM) Ambassador Project Fund
Role: PI
ASM activities in Jamaica
US\$550.00

Dr. Chukwuemeka Nwokocho

- 50 Sphygmomanometers valued at Five hundred Thousand Dollars (\$500,000) from the International Society of Hypertension for the “Cadmium and hypertension in Jamaica: any correlation?”

Dr. Simone Sandiford – Principal’s New Initiative – \$JMD 1.5 million

Dr. Cameil Wilson-Clarke – Lasco funding to cover the cost of white coat for the Doctor of Pharmacy students – \$JMD 100,000.00.

Dr. Cameil Wilson-Clarke – Initiation of the Clinical Trials Phase 2 study of Sevuparin: A Multi-Centre, Phase II, Randomized, Double-Blind, Placebo-Controlled Study to investigate Efficacy and Safety of Sevuparin Infusion for the Management of Acute Vaso-Occlusive Crisis (VOC) in Subjects with Sickle-Cell Disease (SCD).

- Phase 2 study of EXTEND: Expanding Treatment for Existing Neurological Disease (EXTEND) The primary goal of the Phase II EXTEND trial is to investigate the effects of open-label hydroxyurea treatment, escalated to maximum tolerated dose, for children with

Department of Basic Medical Sciences

Sickle Cell Anemia and either conditional (170–199 cm/sec) or abnormal (≥ 200 cm/sec) Transcranial Doppler velocities. The primary endpoint will be measured after 18 months of hydroxyurea but treatment will continue until a common study termination date.

Dr. Lisa Lindo

- Investigating the Effects of *Salvia serotina* (Chicken Weed) on the Blood Glucose Concentration and Haemodynamic Parameters in Normal Sprague–Dawley Rats

Amount: US \$1,668.00 (2016)

US\$2,321.42 (2017)

Total US\$3,998.42

- Investigating the Effects of *Smilax balbisiana* on the Blood Glucose Concentration and Haemodynamic Parameters in Normoglycaemic Rats”

Amount: US \$ 1500.00 (Ja \$ 193,757.12; March, 2016)

US\$ 3000.00

Total US\$4500.00

- Investigating the Effects of extracts on Testosterone Levels, Blood Glucose Concentration and Penile Erection in Sprague-Dawley Rats

Amount: US \$1938.96

GRAND TOTAL: US \$10,437.38

PUBLIC SERVICE

Professor Paul Brown

- President, WIGUT (Jamaica).
- Chief Judge, Secondary Schools division, JPS Science and Technology Expo for Schools, National Finals. March 2016
- Adjudicator, American International School of Kingston (AISK) Middle School Science Fair. April 2017

- Country Ambassador to Jamaica, American Society for Microbiology (ASM).
- Member, Research Subcommittee, International Society of Infectious Diseases. Terms: Oversight of ISID’s research grants & awards and fellowship programs.
- Member, American Society for Microbiology (ASM) Leadership Circle.

Professor Wayne McLaughlin

- Board Member, Coconut Industry Board
- Board member, Seprod Limited

Dr. Andrew G. M. Pearson

- Chair of the International Standards Organisation Technical Committee 93: Starch & its Derivatives 15th. Plenary Meeting 21–22nd March, 2017.
- Appointed member of the Private Sector Organisation of Jamaica Innovation Committee

Dr. Chukwuemeka R. Nwokocho

- Country Co-ordinator, International society of Hypertension May Month measurement for blood pressure awareness and management.
- Global health Initiative and Henry Ford Hospital, Detroit, Michigan Hypertension and Vascular research invitation.
- Chairman, FMS Research Conference Abstract Committee

Dr. Kerith Golden

- Vice President, Stock Farm Road Citizens Association, Golden Spring, St Andrew.
- Member of the Board (Vice President) for Jamaica Association for Children with Learning Disabilities.

Dr. Rachael Irving

- Committee Member: National Sports Museum

Professor Dalip Ragoobirsingh

- Director UWI (Mona) Diabetes Education Programme
- Diabetes Association of Jamaica (DAJ) – Consultant Diabetes Educator
- The University Diabetes Outreach Programme (UDOP) – Director Research
- University Hospital of the West Indies (UHWI) – Consultant Diabetes Educator
- Ministry of Health, Jamaica (MOH) – Panel member on Technical Advisory Committee, The Chronic Diseases and Injuries Unit updating the National Guidelines for the management of diabetes.
- Pan American Health Organization Special Technical Committee to revise and update the nutrient requirements and recommended dietary allowances (RDAs) for the populations in the English speaking Caribbean.
- World Health Organization Guideline Development Group.

Dr. Cameil Wilson-Clarke

- Anti-Cancer Research Jamaica Foundation (ACRJ)
- American Association of Colleges of Pharmacy (AACCP)
- International Pharmaceutical Federation of (FIP)
- American College of Clinical Pharmacists (ACCP)
- Bioethics Society of the English-Speaking Caribbean (BSEC)
- American Society of Health System Pharmacist (ASHP), USA
- Mentor, Future Leaders of Jamaica Foundation
- Member, Future Leaders of Jamaica Mentorship and Outreach Committee
- Coordinator of the Pharmaceutical Society of Jamaica *ASTRA RUN* (5k Walk/Run)
- Organised Community Health Fairs (Free Clinics) for Ridge Community Annual Health Fair, St. Peter's Anglican Health Fair, Pharmaceutical Society of Jamaica Annual Week Health Fair

- Served on the Education Committee, National Kidney Foundation of Jamaica 2017: ACRJ Committee Member

Dr. Maxine Gossell-Williams

- American Association of Colleges of Pharmacy

Dr. Lisa Lindo

- American Friends of Jamaica (AFJ) / Sue Cobb Lecture Series-Chair
- Caribbean Academy of Sciences, Director – Treasurer
- Fulbright Alumni Association School's Outreach Association
- Sts. Peter and Paul Sunday School Activities
- Catholic School Ministry

Dr. Lauriann Young-Martin

- Lector and Member of the Liturgical Committee of Holy Cross Roman Catholic Church
- Fund-raiser for Holy Cross Church
- Fund-raiser for Convent of Mercy (Alpha) High School
- Member of the Women in World Neuroscience (WWN)
- Member of the Society for Neuroscience (SfN)
- Founding Member of the Bioethics Society of the English Speaking Caribbean (BSEC)
- Member of the International Brain Research Organization (IBRO)

Dr. Icolyn Amarakoon

- Chair, Technical Service Advisory Committee, Basic Medical Sciences
- Member, Working Group Hazardous Waste Management Project
- Mentor, Future Leaders of Jamaica
- Member, Society for Scientific Advancement (SoSA)
- Member, Fulbright Alumni Association

Dr. Sharmella Roopchand-Martin

- Chair for CARPHA's Research Ethics Committee
- Secretary for Bioethics Society for the English Speaking Caribbean

Dr. Jean-Pierre Louboutin

- Member of Editorial Boards of 27 journals
- Reviewer of 60 peer-reviewed journals
- Reviewer of grants for Scientific Council of Romania (Young Investigators Awards in 2015)

Dr. Audrey Jacob

- Participated in the Read across Jamaica Day events at Immaculate Conception Preparatory School

Dr. Carron Gordon

- Member and Ministry Leader, Christian Life Fellowship Church
- Manuscript Reviewer, *West Indian Medical Journal* and *Disability and Rehabilitation Journal*
- Member, Jamaica Physiotherapy Association

Ms. Gail Nelson

- Member, Jamaica Physiotherapy Association
- Member, Philharmonic Orchestra of Jamaica (2013–to present) – Violist; Board of Management
- Member, UWI Classical and Jazz Ensemble (2015–to present)
- Accredited Local Preacher – Methodist Church in the Caribbean and the Americas

Dr. Sonja Williams

- Member, Jamaica Physiotherapy Association
- Continued involvement in the exercise classes for older adults offered by the Mona Ageing Centre

Ms. Gillian Hudson

- Member, Jamaica Physiotherapy Association
- Consie Walters Cancer Care Center Executive Member; Friends of Sir John Golding Rehabilitation Center

Dr. Jacqueline Campbell

- Volunteer physician, Women's Health Network
- Member, Management Committee of the Caribbean Poison Information Network (CARPIN)

Dr. Sophie Turfus

- Judge at the American International School of Kingston Science Fair held March 17, 2016.
- Member, International Association of Forensic Toxicologists
- Member, London Toxicology Group
- Joined the Caribbean Association of Forensic Sciences in which she is Public Relations Officer
- Mentor, Future Leaders of Jamaica Foundation
- Member, Philharmonic Orchestra of Jamaica

UNDERGRADUATE STUDENTS REGISTRATION

BB Med Sci. (Physiology Major)

Year 1 = 60

Year 2 = 13

Year 3 = 8

BSc -Physical Therapy

Enrolment

Year 1 = 39

Year 2 = 66

Year 3 = 69

Total = 174

BSc – Physical Therapy

Graduated

50 students graduated in October 2016

MSc – Physical Therapy

1 student graduated in October 2016

No new enrolment for 2016-2017

MBBS/ DDS

Year 1 = 270/25

Year 2 = 330/12

POST GRADUATE STUDENTS REGISTRATION

Taught Masters

MSc Forensic Science = 19

MSc Applied Pharmacology = 6

MSc Biomedical Research = 20

MSc Physical Therapy = 0

Research

MPhil = 34

PhD = 16

PharmD

Year 1 = 20

VISITORS TO THE DEPARTMENT

Dr. Melrose Stewart-Fraser from University of Birmingham, London, UK visited the Physical Therapy Section in the capacity as The External Examiner for the Final Professional Examination held in July 2017.

Michelle Johnson and team from University of Pennsylvania visited to explore research collaboration in “Robotics in Stroke Rehabilitation”.

A team from the University of Pennsylvania visited the department in November 2016.

- UPenn and UWI Mona to explore joint Masters and PhD research
- UWI Physical Therapy to explore research partnership in testing the Rehab Care (4 compartments) prototype machines from Michelle’s research
- Mona Engineering to explore ways to produce lower cost designs and will partner with Penn Medicine
- Research exploration on Cognitive skill improvement is needed. Develop control algorithms.