

DEPARTMENT OF PATHOLOGY



Dr. Gilian Wharfe
Head of Department

The Department of Pathology has a staff complement of approximately 100 persons comprising Professors, Senior Lecturers, Lecturers, Associate Lecturers, and other categories of staff comprising medical and laboratory technologists, administrative, secretarial and clerical staff, research nurse, medical photographers, laboratory attendants, and office attendants.

The Department's core work involves teaching, research and service and is carried out through the various subdepartments, namely, Anatomical Pathology (Autopsy, Cytogenetics, Cytology, Histology, Immunohistochemistry), Chemical Pathology and Haematology (Blood Bank, Flow Cytometry and Routine Haematology).

WORK OF THE DEPARTMENT

Laboratories and Autopsy Service

The Histopathology Laboratory accessioned and processed 9,269 surgical cases which generated 49,215 tests. Total immunohistochemistry tests

were 2,048. The Cytology Laboratory processed pap smears 2438 and 674 non-gynaecological cases. A total of 161 autopsies were performed, including 22 perinatal autopsies. The Chemical Pathology Laboratory performed a total of 774,392 tests while Routine Haematology Laboratory received and processed 115,644 specimens. The Blood Bank processed 3349 blood donors and performed 8270 tests.

Histology Laboratory

Miss Joyce Sterling attended the 43rd Annual National Society for Histotechnology (NSH) Symposium/Conference held at the Gaylord Convention Center Orlando, Florida from September 15–20, 2017. By attending the NSH Symposium she gained knowledge on modern methodology and opportunities available in Histotechnology. Through her interaction with the NSH team she was able to obtain much needed items for the Histology Lab namely cover slips, Thermo Scientific Disposable Hoppers for the automatic staining machine, glass slides, textbooks and flashcards. These items were all donated to the Histology laboratory, and are helping to improve quality in terms of accuracy and precision of the laboratory techniques.

Accreditation

A team of Lead and Technical Assessors from Jamaica National Agency for Accreditation (JANAAC) conducted an On-Site Initial Assessment to the Department of Pathology on February 20–22, 2018. During the On-Site Assessment the team examined the relevant structure, policies and procedures of the Laboratories in the Sub-Departments of Chemical Pathology and Haematology to confirm whether all the requirements relevant to the scope of accreditation and ISO 15189 (2012) Medical laboratories – Requirements for quality and competence were met. The Department through its Acting Quality Manager is presently addressing the nonconformities and concerns identified and once the process is completed should be granted a licence by JANAAC indicating the accreditation of the tests offered by the Chemical Pathology and Haematology Laboratories that constitute the scope.

TEACHING & LEARNING

Undergraduate Programmes

The Department remains committed to the teaching of Pathology in both Stages I and II of the MBBS programme, delivering lectures in all aspects and sub-specialties of Pathology. Every ten weeks 50-70 students rotate and sit the Pathology/Microbiology Stage II examination.

Graduate Programmes

The DM programmes in the department continue, with offerings in Anatomical Pathology, Haematology/Oncology and Chemical Pathology. Applications to the DM Anatomical Pathology and Haematology/Oncology have continued to increase. Three residents were accepted in the DM Anatomical Pathology programme this year making a total of sixteen residents in the programme. One was accepted in the DM Haematology/Oncology programme, making a total of thirteen in the programme. Four candidates sat the DM (Haematology/Oncology) exit examination in June 2018, three of whom were successful.

RESEARCH & INNOVATION

Jamaica Cancer Registry

Case Registration

The registration of cancers continues at the University Hospital of the West Indies. Cancer registration from other institutions in Kingston & St. Andrew remains problematic as a result of the voluntary nature of data collection, and the fact that cancer is not a reportable disease. It is hoped that registration will proceed more smoothly in the upcoming academic year.

International Agency for Research on Cancer (IARC) commitments

The registry's IACR membership was renewed.

The registry's cancer data for the period 2008–2011 have been published in the eleventh volume of “Cancer Incidence in Five Continents”, a publication from the International Agency for Research on Cancer (IARC).

In addition, registry data on childhood cancer for the period 1982 – 2012, have been published in the third volume of “International Incidence of Childhood Cancer”, another publication from the IARC.

Personnel

The nurse registrar staff complement remains at two (2), as does the complement of pathologists who undertake the work of the registry.

Research

In keeping with tradition, the Registry continued to provide information on cancers to members of the medical community and the Ministry of Health, and to assist in various research projects.

As mentioned above, data from the registry appear in two publications from the International Agency for Research on Cancer (IARC), as cited under publications below.

Future Goals

The registry will be making another thrust in the upcoming academic year to liaise with the Registrar General's Department (RGD), to acquire data to enable registration of cancer deaths within the registry. This will require acquisition of one additional registrar, with approved access to RGD data.

Cytogenetics Laboratory

The laboratory continued only limited operations, as the post of Laboratory Manager remained unfilled. The laboratory accessioned and processed 43 tissue samples and 24 blood specimens. All tissue samples were accessioned through a student research project (see below).

Cytogenetics Laboratory Staff Complement

Full-time: 1 Pathologist/Cytogenetics Analyst

1 Laboratory Technician

Part-time: 1 Cytogenetics Analyst

** The full-time post of Laboratory Manager remains unfilled.

Research

The cytogenetics research project being undertaken by Ms. Sashane McLean in partial fulfillment of the degree of Master of Science in Biomedical Research at the University of the West Indies, Mona was completed.

Future Goals

- Stabilization of staff infrastructure, particularly the post of Laboratory Manager
- Re-establishment of FISH testing and accessioning of oncology samples
- Formal training of the current Laboratory Technician, so that she can be employed as a Cytogenetics Technologist.

Visitors/Future Collaboration

Sandra Hing, Molecular Geneticist and NHS Consultant from the United Kingdom (UK) visited the laboratory on July 19, 2018. It is expected that collaborative work with UK geneticists will commence in 2019.

INITIATIVES/ACTIVITIES

HTLV-1 Project

This project continues to receive annual funding for enrolment and follow up of patients enrolled in clinical trials for treatment of ATLL.

Haemophilia Research

The Novo Nordisk Haemophilia Foundation (NNHF) project for Haemophilia was completed and a research paper published in Haemophilia Vol. 24, Issue 4.

The project resulted in registration and joint assessment of Haemophiliacs in Jamaica. A second grant will be applied for. In addition we acquired two coagulometers through the project and trained staff in the diagnosis of bleeding disorders with the hope that the UWI laboratory will become the regional testing site for the Caribbean.

There was the launch of the Haemophilia Society of Jamaica which was attended by our sponsors from NNHF.

The World Federation of Haemophilia (WFH) sponsored the attendance at the Congress held in Glasgow Scotland in May 2018. At this Congress there were other small group meetings to achieve the following:

The involvement of the Jamaica group in the Musculoskeletal registry to develop an online tool for musculoskeletal involvement from joint bleeds (To be submitted to FMS Ethics)

The involvement in the World Bleeding disorder registry (proposal submitted to Ethics)

A visit by WFH in order to make Jamaica a country project

Sick Kids – Caribbean Collaboration

The project has been accepted for a phase 2 which will last 3 years. Over the duration of the project a number of achievements were made.

We have also been invited to participate in research on acute myeloid leukaemia and the Department of Pathology is expected to be the site to do the testing for all participants. The proposal is currently undergoing Ethics review.

The Caribbean Association for Oncology and Haematology convened in May with a view to preparing regional guidelines for the treatment of

various malignant diseases. The Clinical Chair for that meeting was Dr. G Wharfe and it was held in Trinidad and Tobago. The guidelines were done in collaboration with the National Comprehensive Cancer Network (NCCN) and now appear on their site as regional guidelines under the Harmonized NCCN guidelines for the Caribbean.

In addition members of the Department in collaboration with the Department of Surgery also prepared treatment guidelines for common conditions seen in the country of Jamaica.

Dr. Wharfe was invited to Frankfurt Germany to do speaker training on a clinical Trial in order to be available to speak in the English speaking Caribbean on the APHINITY trial data.

PAPERS PRESENTED AT CONFERENCES AND SEMINARS

- **Bromfield M**, “Renal Biopsy in Transplant Setting”: Renal Transplant Workshop, 16th Annual Caribbean Neurosciences Symposium and Workshops, Montego Bay Convention Centre, January 27, 2018.
- **McGrowder D**, “Cardio-metabolic health in prostate cancer survivors and their controls: Results of the PROSCARE Follow up Study.” 63rd CARPHA Health Research conference, St. Kitts Marriott Resort & The Royal Beach Casion, St. Kitts and Nevis, June 14–16, 2018.
- **Williams NP**, “Colon Cancer Development: From Polyps to Cancer”. Jamaica Cancer Society/Association of Consultant Physicians of Jamaica/Association of West Indian Gastroenterologist Colon Cancer Symposium. Iberostar Hotel, Montego Bay, Jamaica March 11, 2018.
- **Williams NP**, “Clinicopathologic case presentations I – Interesting cases
- Clinicopathologic case presentations II – Listen to your Pathologists”. Association of West Indian Gastroenterologists, Thirty-First Annual meeting and International Postgraduate course 2018. Mount Irvine Bay Resort, Tobago, April 26–28, 2018.

- **Lowe, D.** “Advances in the treatment of Metastatic Colorectal Cancer” Annual Cancer symposium (Cayman Cancer society), Georgetown, Grand Cayman, December 6, 2017.
- **Lowe, D.** “Evaluation of the Patient with Myelofibrosis”, Grand Rounds, CTMH doctors Hospital, November 22, 2017.

Book Chapter

Lowell Dilworth, Dewayne Stennett and Felix Omoruyi. “Sweet Potato”. Production Trends and Health Benefits. In *Complication: Research and Practice*. iConcept Press 2017.

Published Abstract

- S. Foster, F. Omoruyi, **L. Dilworth**, J. Bustamante and R. Alexander-Lindo. “The effect of inositol hexakisphosphate (IP6) and inositol combination on renal and hepatic function and antioxidant status in streptozotocin-induced type 2 diabetes mellitus Sprague-Dawley rats”. *West Indian Medical Journal* 65(1):34.

Refereed Journal Articles

- **G. Wharfe, L. Buchner-Daley, T. Gibson, D. Lowe**, P. Hilliard, K. Usuba et al: “Describing the burden of Disease” The Jamaica Haemophilia Registry: *Haemophilia*/Vol 24, Issue 4. May 2018.DOI: 10.111/hae.13517
- **D. McGrowder** “Biochemical parameters as cardiovascular risk factors in obese children and adults”. *I Journal of Endocrinology, Diabetes and Obesity* 2018; 6(1):115
- M. Williams, H. Asemota, C. **Nwokocha, M, D. McGrowder & E. Williams**. “The effect of a combination treatment of biomagnetic therapy and a low glycaemic influenced diet on non-fasting glucose levels in type 2 diabetic rats. Voutchkov”. *Diabetes Management* 2018; 8(3):74-81.

- Foster K, Younger N, Aiken W, **Brady-West D**, Delgoda R. “Reliance on Medicinal Plant Therapy Among Cancer Patients in Jamaica”. *Cancer Causes Control* (2017) Nov. 28(11):1349-1356. Doi.1007/s10552-0170924-9.
- Wayne West, **Doreen Brady-West**, Keon P. West “A comparison of statistical associations between oedema in the limbar fat on MRI, BMI and Back Fat Thickness (BFT)” <http://doi.org/10.1016/j.heliyon.2017.e00500>.
- Aldeam Facey, **Lowell Dilworth**, Rosemarie Wright-Pascoe, Melissa Walker, Rachael Irving, “The Metabolic Hormones Leptin, Adiponectin and Troponin T in Type 2 Diabetes Patients and Athletes in Jamaica”, *International Journal of Diabetes Research*, Vol. 6 No. 2, 2017, pp. 35-40. doi: 10.5923/j.diabetes.20170602.01.
- Shadae R, Foster, **Lowell L Dilworth**, Felix O Omoruyi, **Rory Thompson** and Ruby L Alexander-Lindo. “Pancreatic and renal function in streptozotocin-induced type 2 diabetic rats administered combined inositol hexakisphosphate and inositol supplement” *Biomedicine & Pharmacotherapy*
- Marlene Tapper, **Chanice Francis**, **Lowell Dilworth**, **Donovan McGrowder** “Evaluating Thyroid Function in the Clinical Laboratory”. *Thyroid Research and Practice* Vol 14, Issue 3, September-December 2017
- Aldeam Facey, **Lowell Dilworth**, Rosemarie Wright-Pascoe, Melissa Walker, Rachel Irving. “An evaluation of Basal Lactate in Athletes and Patients with type 2 Diabetes Mellitu” *International Journal of Medical and Health Science*. Vol 3 no 12
- Blake KEG, **Jaggon J**, **Bishop K**, **Hanchard B**, **Gibson T**, Waugh N, **McNaughton D**, **Char G**. “A 30 year review of paediatric central nervous system malignancies in Jamaica”: 1978 – 2007. *West Indian Med J* 2018 Jan. doi: 10.7727/wimj.2017.165 [Epub ahead of print]
- **Neblett ACG**, **Gibson TN**, **Escoffery CT**. “Unexpected findings and misdiagnoses in coroner’s autopsies performed for trauma at the

University of the West Indies, Kingston, Jamaica”. *Forensic Sci Med Pathol* 2018. <https://doi.org/10.1007/s12024-018-9983-9> [Epub ahead of print]

- **Thompson RK** and **Williams NP**. “Tropical Sprue”, *Encyclopedia of Gastroenterology* 2nd edition B978-0-12-801238-3.65652-0.

PUBLIC SERVICE

Dr. D. McGrowder

- Member, Accreditation Evaluation Committee, Jamaica National Agency for Accreditation (JANAAC)

Professor B. Hanchard

- Cytopathology Consultant, Jamaica Cancer Society

C. Escoffery

- Cytopathology Consultant, Jamaica Cancer Society

Dr K Bishop

- Cytopathology Consultant, Jamaica Cancer Society

Dr. S. Shirley

- Cytopathology Consultant, Jamaica Cancer Society

Dr. M Bromfield

- Cytopathology Consultant, Jamaica Cancer Society

Dr. T. Gibson

- Cytopathology Consultant, Jamaica Cancer Society
- Member FMS Ethics Campus Committee

Dr. L Dilworth

- Board Member, North Eastern Health Regional Authority
- Board Member, University Council of Jamaica
- Board Member, The Council of Community Colleges of Jamaica
- Board Member, The Rural Agricultural Development Authority

Dr. N. Williams

- Cytopathology Consultant, Jamaica Cancer Society

Dr. G. Wharfe

- Chair, Haemophilia Society of Jamaica
- Member, Oncology Advisory Board, National Health Fund
- Co-Chair FMS Ethics Campus Committee

Dr. J. Jaggon

- Cytopathology Consultant, Jamaica Cancer Society

Dr. S. Chin

- Oncology Advisory Board, National Health Fund, Jamaica

Dr. D. Lowe

- Volunteer Clinician, National Blood Transfusion Service

DISTINGUISHED VISITORS TO THE DEPARTMENT

- Dr. Andrew Evans, Department of Pathology, University Health Network, Toronto, Canada
- Sandra Hing, Molecular Geneticist and NHS Consultant, United Kingdom

AWARDS

Students – Undergraduate

- Craig Thomas – Pathology/Microbiology Medal – Best Overall Performer
Kimberly Harrow – Professor Stanley Brooks Book Prize – Best Overall Performer (Pathology)