

DEPARTMENT OF PATHOLOGY



Professor Carlos Escoffery, BSc, MBBS, DM *UWI*
Head of Department

The Department of Pathology is engaged in teaching, research and service and is composed of various subdepartments and units, the major ones being Anatomical Pathology (Autopsy, Cytogenetics, Cytology, Histology, Immunohistochemistry), Chemical Pathology and Haematology (Blood Bank, Flow Cytometry and Routine Haematology).

STAFFING, STAFF DEVELOPMENT & ADMINISTRATIVE REFORM

We started the year with 19 full-time members of academic staff and one half-time lecturer (shared with the Department of Medicine) – Anatomical Pathology (11): 5 Professors, 4 Senior Lecturers, 2 Lecturers; Chemical Pathology (3): 1 Professor, 1 Senior Lecturer, 1 Lecturer; Haematology (5.5): 1 Senior Lecturer, 4 Lecturers, 1 Part-time lecturer (Oncologist, shared half and half with the Department of Medicine. Professor Dipak Shah of Anatomical Pathology, who had been working on a post-

retirement contract, left us on December 31, 2012 and was replaced by Dr. Mahiri Bromfield, who returned to Jamaica after completing a fellowship in Renal Pathology at the University of Toronto in Canada. By the end of the year, we had lost a full-time lecturer in Haematology – Dr Joye Taylor-Houston, who left us on July 31, 2013.

Professor Carlos Escoffery six-year tenure as Head of the Department came to an end on July 31, 2013, and he will be replaced by Dr Gilian Wharfe of Haematology. Each member of the academic staff continues to work along the lines of teaching, research and service work without any weighting in terms of differential workloads.

In addition to the academic staff, the department has a diverse staff of about 40 medical and laboratory technologists, miscellaneous administrative, secretarial and clerical staff, research nurses, medical photographers, laboratory attendants, etc, giving a full-time staff of 100.

We still await the appointment of a Quality Manager to drive, coordinate and monitor the accreditation of the laboratories, without which we are being retarded in our efforts at attracting research projects from international collaborators.

We continue to anticipate a meaningful response from the Human Resources Management Division to our often repeated pleas for administrative reform in the Department, to include matters such as:

- The rationalizing and reclassification of the Departmental administrative staff so as to better cope with the ever increasing administrative load being placed upon them and upon the academic staff.
- The empowerment of the Sub-departmental/Unit Heads to exercise more autonomy with respect to the management of their budgets and staff.

WORK OF THE DEPARTMENT

Laboratories and Autopsy Service

The work of the department has been significantly hampered by a chronic shortage of reagents and supplies due to the financial constraints of the University. This is despite the fact that our fee collection from patients has meaningfully supplemented our UGC budget, albeit that our income generation has been stymied by the inability to perform our full raft of tests when we our reagents are in short supply.

Our laboratory and autopsy services continued to provide invaluable support to the care of the in- and out-patients of the UHWI, as well as to patients from other medical facilities and institutions, both national and regional. We eagerly anticipate the start-up of our Laboratory Information System (LIS) which has had a long gestational period, and without which we continue to be severely hampered in our ability to function as modern clinical laboratories should.

The Histopathology Laboratory accessioned and processed 9,138 surgical cases which generated 45,734 tests (including routine, histochemical and immunohistochemical stains), amounting to over 570,094 units of work. Over my tenure as Head of Department, I sought to retool this vital laboratory which had deteriorated badly and suffered from suboptimal technology and worn out equipment, among other problems. Things have now improved significantly as over this academic year this laboratory acquired 18 filing cabinets for slides and tissue blocks, one Shandon Clearvue Cover Slipper, one Gemini Autostainer, one Shandon Slidemate Slide labeler, one still for distilled water, one Excelsior Tissue Processor, two computer workstations and six laboratory chairs. The Cytology Laboratory processed 329 pap smears and 61 non-gynaecological cases. A total of 235 autopsies were performed, including 41 perinatal autopsies.

The Cytogenetics Laboratory successfully completed the validation of its procedures for karyotyping on peripheral venous blood in June 2013, and is now accepting samples for this test. It is expected that validation

procedures for karyotyping on solid tissue and amniotic fluid samples will commence in June 2014.

The Chemical Pathology Laboratory performed a total of 604,799 tests on blood, urine, body fluids and miscellaneous samples, with approximately 92% of these being analytes done on blood samples. The Routine Haematology Laboratory received and processed a total of 175,320 specimens, approximately 54% of which were composed of complete blood counts and blood films. The Blood Bank processed 4,079 blood donors, performed 21,515 tests and prepared 10,336 miscellaneous units of blood products.

Academic Innovations

The department co-hosted an international conference with the Departments of Obstetrics and Gynaecology, and Child Health – the 12th Annual Perinatal Conference & Perinatal Autopsy Workshop – “Perinatology and the Law” – in the Main Medical Lecture Theatre, UWI, on February 9–10, 2013. The main guest lecturer at this forum was Dr Glenn Taylor, Paediatric and Perinatal Pathologist and Head of the Department of Pathology, the Hospital for Sick Children, Toronto, Canada.

TEACHING & LEARNING

Undergraduate Programmes

The Department continued to be very heavily involved in the teaching of all aspects and sub-specialties of Pathology in both Stages I and II of the MBBS programme. Dr Elaine Williams continued as our Departmental Academic Administrator of Undergraduate Affairs, overseeing and coordinating all aspects of medical student education in the Department, including Clerkship coordination, as well as representing us on the Stage I & Stage II Committees, Assessment & Examination Committee and the Curriculum Committee.

Our lecturers continued to perform their assigned tasks commendably and achieved consistently high positive feedback ratings from the medical students.

Graduate Programmes

The DM Programme in Anatomical Pathology currently has 18 registered candidates representing our highest quota of residents-in-training in the history of the programme. Dr Nadia Williams continued as the Director of the Post Graduate (DM) Programme in Anatomical Pathology and Departmental Representative on the FMS Committee for Graduate Studies. Several members of staff were involved in the supervision and teaching of MPhil, MSc and PhD candidates registered in the Department of Basic Medical Sciences, as well as teaching postgraduate students in the DM Surgery, DM Psychiatry and DM Internal Medicine Programmes.

The DM Programme in Haematology/Oncology has eight registered candidates and the DM in Chemical Pathology has one.

INFRASTRUCTURE DEVELOPMENT & FACILITIES

The department still suffers from a shortage of space and facilities for the use of postgraduate students, laboratory staff, the storage of records, supplies, archival material, etc. This situation has been exacerbated by the fact that space that had been earmarked for teaching and research on the Rippel Building Spine has been co-opted for the creation of a temporary Central Accessioning Area (CAA), in order to facilitate the commissioning of the Laboratory Information System into service. As there are no long-term plans in place for the construction of a permanent CAA, it is assumed that the department will not regain the use of the aforementioned space for years to come.

RESEARCH & INNOVATION

Jamaica Cancer Registry

Work of the Unit

The registration of cancers continues, with the registrars now being in the finalization stages of ensuring complete collection of cases diagnosed in 2012, in preparation for the next 5-year cancer incidence report, which will cover the period 2008–2012. Verification of cases and data analysis for this period will commence in January 2014.

The International Agency for Research on Cancer (IARC) will shortly be publishing the tenth volume of “Cancer Incidence in Five Continents”, which will cover the period 2003–2007. The Jamaica Cancer Registry (JCR) submitted data for this publication, and it was accepted, and will appear in the publication.

Data submitted to IARC for inclusion in the third volume of “International Incidence of Childhood Cancer” is still being analysed by the agency.

In January 2013, the Registry received an official visit from representatives of the National Cancer Institute/ National Institutes of Health, Maryland, USA, who had been visiting various Caribbean territories in order to garner information for their initiative to collaborate with Caribbean partners to improve cancer control in the region. March 2013 marked another official visit for the Registry, this time by Dr. David Forman, Head of the Cancer Information Section of IARC. Dr. Forman was impressed by the quality of work of the Registry and encouraged the staff to work to maintain its high levels.

Conferences, Workshops, Courses

Oral and poster presentations and scientific publications were achieved from and by the data/staff of the JCR as noted below under “Papers Presented at Conferences and Seminars” and “Publications” by Dr. Tracey Gibson et al.

Research

The Registry continues to analyze the epidemiology of specific cancers, in addition to investigating overall age-specific cancer incidence rates, and continues to recruit residents enrolled in the D.M. programme in Pathology to participate in the investigation of specific cancers. In this regard, in addition to the published papers listed below under “Publications”, there are papers on Childhood Malignancies, Head and Neck Squamous Cell Cancer and Vulval malignancies, which are In Press, and should be published shortly.

The JCR also continues to support the Elective programme in the undergraduate M.B., B.S. curriculum, accommodating medical students, who participate in research projects. Two of these students, Ms. Brittany Banbury & Mr. Andre McDaniel gave an *Oral Presentation* of their research entitled “A 20-Year Review of Primary Ovarian Malignancies in Jamaica, 1988–2007” at the 2012 Faculty of Medical Sciences Annual Research Conference, and it was well received.

At the same conference, another medical student, Ms. Miguel Marius presented a poster of her research paper, entitled “Epidemiologic Features of Osteosarcoma in Kingston and St. Andrew, Jamaica, 1978–2007”, and was awarded the prize for Best Pathology Poster.

In November 2012, two Elective students, Ms. Auvarhenne Howell and Mr. Jason Lofters undertook research projects on “Salivary gland malignancies” and “Renal malignancies”, and these have been submitted for presentation at the Faculty of Medical Sciences Annual Research Conference, to be held in November 2013.

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

New Initiatives

The link established in 2012 between the Registry and the African-Caribbean Cancer Consortium, headquartered at the Fox Chase Cancer Center in Philadelphia, Pennsylvania, U.S.A, has resulted in research

collaboration. The first project, which is in the planning stage, will involve the investigation of Head and Neck cancers in Caribbean populations, and will see collaboration between the consortium and several Caribbean cancer registries, including the Jamaica Cancer Registry.

RESEARCH PROJECTS AND ACTIVITIES

The academic staff is involved in research projects and activities including:

Dr K Bishop

- “Investigation of the correlation between ovarian cancer FAK expression and tumor migratory and invasive potential”, with **Dr T Gibson & Professor C Escoffery** in collaboration with the Departments of Basic Medical Sciences and Obstetrics & Gynaecology.

Professor K Coard

- “Prostate cancer in Jamaica: The contribution of diet and lifestyle factors 2004–present” (Principal Investigator: Dr Maria Jackson) in collaboration with the Departments of Community Health & Psychiatry, Surgery, Radiology, Anaesthesia & Intensive Care, Pathology, Biochemistry, Chemistry & the Tropical Medicine Research Institute.
- “Evaluation of Oxidative Stress and Antioxidant Status and the use of the Percentage of Free Prostate Antigen to Enhance the Differentiation of Prostate Cancer from Benign Disease in Jamaican Men” (Principal Investigator: **Dr. Donovan McGrowder**) in collaboration with the Department of Surgery, Radiology, Anaesthesia & Intensive Care.
- “Metabolic Abnormalities and Risk of Prostate Cancer in Jamaican Men.” (Principal Investigator: Dr Maria Jackson) in collaboration with the Departments of Community Health & Psychiatry, Surgery, Radiology, Anaesthesia & Intensive Care, Pathology, Biochemistry, Chemistry, Tropical Medicine Research Institute.

Dr S Shirley

- “The Jamaican Breast Disease Study (Protocols I & II)” with **Professor C Escoffery**, in collaboration with the Departments of Surgery, Radiology, Anaesthetics & Intensive Care and TMRI

PAPERS PRESENTED

Dr K Bishop

- 12th Annual Perinatal Conference & Perinatal Autopsy Workshop – “Perinatology and the Law”, Departments of Obstetrics and Gynaecology and Child health, Faculty of Medical Sciences, UWI, Mona, February 9–10, 2013.
- “The perinatal autopsy procedure: infants are not small adults.”
- “Conditions related to perinatal death and their findings in the infant at autopsy.”

Dr M Bromfield

- “The Kidney and Vasculitis” – The Ricardo Lee Foundation Lecture at the 5th Annual International Conference on Nephrology and Hypertension, Montego Bay, Jamaica. January, 2013.

Professors K Coard & B Hanchard ; Drs D McGrowder & T. Gibson

- “Prospective study on serum lipid levels and risk of prostate cancer in Jamaican men. Up Close and Personalized.” **D. McGrowder, K. Coard, W. Aiken, T. Gibson, B. Morrison, R. Mayhew.** The 2nd International Congress on Personalized Medicine, Paris, France. July, 2013.
- “Epidemiologic features of osteosarcoma in Kingston and St. Andrew, Jamaica, 1978–2007.” (Poster presentation) **MS Marius, TN Gibson, B Hanchard, N Waugh, D McNaughton.** University of the West Indies, Mona, Faculty of Medical Sciences Annual Research Conference, Kingston, Jamaica, November 2012.

- “Colon cancer locally in 2013: Forward, backward or standing still?” Colon Cancer Medical Symposium 2013 (under the auspices of the Jamaica Cancer Society, Department of Medicine, UWI, Association of Consultant Physicians of Jamaica and Association of West Indian Gastroenterologists), Kingston, Jamaica, March 2013.
- “Incidence and mortality of cervical cancer in Jamaica”. Jamaica Cancer Society 4th Cervical Cancer Medical Symposium, Kingston, Jamaica, April 2013.
- “Cytogenetics: Role in human disease.” Medical Association of Jamaica, Symposium 2013, Kingston, Jamaica, June 2013.

Prof C Escoffery

- “The detection of all high risk human papillomavirus DNA in archival formalin-fixed paraffin-embedded cervical tissue using immunohistochemistry and polymerase chain reaction.” by Harrison S, Escoffery C, McFarlane-Anderson N, Reid M. Poster presentation at the 21st Annual Research Conference and Workshop on the Non-Communicable Diseases, Faculty of Medical Sciences, Faculty of Medical Sciences Teaching and Research Complex, Mona, UWI, Jamaica, November 7–9, 2012.
- “HPV DNA types in cervical cancer cases.” by Harrison SR, Escoffery CT, McFarlane-Anderson ND, Reid ME. *Oral Presentation* by SR Harrison at the Ministry of Health’s National HPV Study Dissemination & Update Seminar, Terra Nova All Suites Hotel, St Andrew, Jamaica, March 11, 2013.
- “HPV Infections and cervical cancers in Jamaica.” by Harrison SR, Escoffery CT, McFarlane-Anderson ND, Reid ME. *Oral Presentation* by SR Harrison at the Medical Association of Jamaica Symposium 2013 “New Frontiers in Medicine & Health Care Delivery”, The Jamaica Pegasus Hotel, St Andrew, Jamaica, June 2–9.

Dr J Jaggon

- “Malignant Gliomas at the UHWI: what’s been happening?” 18th

Annual Scientific Symposium of the Jamaican Association of Clinical Pathologists, Kingston, Jamaica, November 201

- “The current Role of Smear Diagnosis in Neuro-oncology: whats happening at the UHWI?” Caribbean Neurosciences Symposium 2013, Montego Bay, Jamaica.
- “Clinical characteristics in patients admitted to the University Hospital of the West Indies with sickle cell disease” (Poster presentation) KM Galloway-Blake, M Reid, MG Lee, C Walters, J Jaggon. Faculty of Medical Sciences 21st Annual Research Conference 2012.
- “Initial data from the Intracranial Tumour Registry of The University of the West Indies: Radio-pathological correlation of meningioma.” (Poster presentation) P Johnson, JR Jaggon, C Bruce, J Campbell, I Crandon, G Char, D Eldemire-Shearer. UWI Research Day 2013.

Dr D Lowe

- “Cancer Related Fatigue and Its Management” 2nd Symposium of the Barbados Cancer Support Services, Hilton Hotel, Bridgeport, Barbados. July 2013.
- “Breast Cancer For The Internist” Dept. Of Medicine Annual Summer Workshop, Main Medical Lecture Theatre, Faculty of Medical Sciences, UWI, Mona. July 2013.
- “Chemotherapy In Colon Cancer”, Colon Cancer Symposium for General Practitioners, Jamaica Grande Hotel, Ocho Rios, St. Ann. September 2012.

BOOKS AND MONOGRAPHS

Book Chapter

- D. McGrowder, L. Anderson-Jackson, T. Crawford (2013). “Biochemical evaluation of oxidative stress in type 1 diabetes”. In *Type 1 Diabetes*. Editor Alan P. Escher and Alice Li. Chapter 6, pp. 221–248. *InTech* Open Access Publishers.

Refereed (Peer-Reviewed) Journal Articles

- **KL Bishop**, C Dupuis, P Miller-Nanton, K Clarke, CS Bolt, CK Chin See. “Perinatal Autopsy Rates at the University Hospital of the West Indies: 2002–2008”. *West Indian Medical Journal*. 2013; (62)1: 35–38.
- Jackson MD, Tulloch-Reid MK, McFarlane-Anderson N, Watson A, Seers V, **Bennett FI**, Egleston B, Ragin C. “Complex interaction between serum folate levels and genetic polymorphisms in folate pathway genes: biomarkers of prostate cancer aggressiveness”. *Genes and Nutrition*. 2012; 8(2):199–207.
- Murphy AB, Ukoli F, Freeman VL, **Bennett F**, Aiken W, Tulloch T, **Coard K**, Angwafo F, Kittles RA. “8q24 risk alleles in West African and Caribbean men”. *Prostate*. 2012; 72:1366–73.
- Jackson MD, Tulloch-Reid MK, Walker SP, McFarlane-Anderson N, **Bennett FI**, Francis DK, **Coard KCM**. “Dietary Patterns as Predictors of Prostate Cancer in Jamaican Men”. *Nutrition and Cancer*. 2013; 65: 367–374.
- Brown C, McFarlane-Anderson N, Alexander-Lindo R, **Bishop K**, Dasgupta T, **McGrowder D**. (2013). “The Effects of S-nitrosoglutathione and S-nitroso-N-acetylpenicillamine in a rat model of preeclampsia”. *Journal of Natural Science, Biology and Medicine* 4(2): 330–335.
- **L. Buchner, D. Brady-West, D. McGrowder**. “Clinical features, biochemical and haematological parameters of patients with multiple myeloma”. *Asian Pacific Journal of Cancer Prevention*. 2012; 13 (4):1453–6.
- Ritch CR, Morrison BF, Hraby GW, **Coard KC**, Aiken WD, Benson MC, McKiernan JM. “Pathological outcome and biochemical recurrence free survival following radical prostatectomy in African American, Afro-Caribbean (Jamaican) and Caucasian men: an international comparison”. *BJU International* 2012; Published online: 26 OCT 2012. DOI: 10.1111/j.1464-410X.2012.11540.x
- Heslop OD, Roye-Green K, **Coard K**, Mulvey MR. “A unique

strain of community-acquired *Clostridium difficile* in severe complicated infection and death of a young adult”. *BMC Infectious Diseases* 2013; 13:299. doi:10.1186/1471-2334-13-299.

- **Gibson TN, Hanchard B, Waugh N, McNaughton D.** “A fifty-year review of soft tissue sarcomas in Jamaica: 1958–2007”. *West Indian Medical Journal.* 2012; 61: 692–7.
- **Gibson TN, Hanchard B, Waugh N, McNaughton D.** “Cancer in adolescents and young adults, Kingston and St. Andrew, Jamaica, 1988 –2007”. *West Indian Medical Journal.* 2013; 62: 21–7.
- **Johnson P, Jaggon JR, Bruce C, Campbell J, Crandon I, Char G, Eldemire-Shearer D.** “Initial data from the Intracranial Tumour Registry of The University of the West Indies: Radio-pathological correlation of meningioma”. *Internet Journal of Third World Medicine* 2012; 10: No. 1.
- **Crossman G, Mowatt L, Jaggon J.** “Sebaceous Gland Hyperplasia of the Caruncle: an uncommon diagnosis”. *Graefes Archives for Clinical and Experimental Ophthalmology* 2012;12: DOI 10.1007/s00417-012-2244-9
- **Jaggon JR, Brown TA, Mayhew R.** “Metastatic Primary Neuroendocrine Carcinoma of the Genitourinary Tract: A case report of an uncommon entity”. *American Journal of Case Reports* 2013; (May) 14:CR147–149 DOI: 10.12659/AJCR.883908
- **T. Crawford, D. McGrowder, J. Barnet, L. James.** “Tobacco-related chronic illnesses: A public health concern for Jamaica”. *Asian Pacific Journal of Cancer Prevention* 2012; 13(9): 4733–4738.
- **M. Gossell-Williams, J. Martin, RC Gibson, W. Abel, C. Sewell, D. McGrowder.** “Prevalence of metabolic syndrome in patients presenting to UHWI: A need to adapt proactive screening and specific management policy”. *West Indian Medical Journal* 2012; 61(8): 802–808.
- **C. Green, A. Wheatley, D. McGrowder, L. Dilworth, H. Asemota.** “Ortanique peel polymethoxylated flavones extract modulates liver

and heart function parameters in diet induced hypercholesterolemic rats”. *Food and Chemical Toxicology* 2013; 51:306–309.

- L. Gordon, D. McGrowder, Y. Pena, E. Cabrera, M. Lawrence-Wright. “Effect of exercise therapy on oxidative stress indicators in patients with end-stage renal disease on haemodialysis”. *International Journal of Yoga* 2013; 6(1): 31–38.

Refereed (Peer-Reviewed) Journal Abstracts

- KM Galloway-Blake, M Reid, MG Lee, C Walters, J Jaggon. “Clinical characteristics in patients admitted to the University Hospital of the West Indies with sickle cell disease”. *West Indian Medical Journal*, 2012, 61(Suppl. 6): 45-46.
- S. Bryan, R. Alexander, T. Dasgupta, D. McGrowder (2013). “Effects of Vitamin C, Cysteine and Glutathione administration with S-nitrosoglutathione on glycaemic control in Sprage-Dawley Rats”. University Diabetes Research Outreach Programme (UDOP). 17th Annual International Diabetes Outreach, March 21–23. *West Indian Medical Journal*, 62 (Suppl. 1): 36.

PUBLIC SERVICE

Dr K. Bishop

- Cytopathology Consultant, Jamaica Cancer Society

Dr M Bromfield

- Cytopathology Consultant, Jamaica Cancer Society

Professor G. Char

- Cytopathology Consultant, Jamaica Cancer Society

Professor C. Escoffery

- Cytopathology Consultant, Jamaica Cancer Society

Dr. T. Gibson

- Cytopathology Consultant, Jamaica Cancer Society

Professor B. Hanchard

- Member, Executive Board, International Society of Retrovirology
- Member, Board of Directors, Jamaica Cancer Society.

Dr. J. Jaggon

- Cytopathology Consultant, Jamaica Cancer Society
- Member, Jamaica League Against Epilepsy.

Dr. D. Lowe

- Executive Member, Leukemia CARE

Dr. D. McGrowder

- President, Jamaican Association of Clinical Pathologists
- Vice President, Laboratory Association of Jamaica
- Member, Accreditation Evaluation Committee, Jamaica National Agency for Accreditation (JANAAC).

Dr. S. Shirley

- Cytopathology Consultant, Jamaica Cancer Society
- Reviewer, *West Indian Medical Journal*
- Member, Jamaica National Agency for Accreditation Council (JANAAC) Technical
- Advisory Committee ISO 15189 for Medical Laboratories.

Dr. E. Williams

- Cytopathology Consultant, Jamaica Cancer Society

Dr. N. Williams

- Cytopathology Consultant, Jamaica Cancer Society

DISTINGUISHED VISITORS TO THE DEPARTMENT

- **Dr Oyedele Adeyi**, Staff Pathologist & Associate Professor, Department of Pathobiology & Laboratory Medicine, University Health Network, Toronto, Ontario, Canada.
- **Dr. Glenn Taylor**, Paediatric and Perinatal Pathologist, Head, Division of Pathology, Paediatric Laboratory Medicine, The Hospital for Sick Children, Toronto, Canada.

AWARDS

- **Professor K Coard** – Award for the “Best Research Publication” in the Faculty of Medical Sciences, at the University of the West Indies, Research Day 2013 Awards Ceremony.
- **Professor B Hanchard** – Jamaica Medical Foundation 2012/2013 Awardee.