

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

There are 19 full-time members of academic staff and one half-time lecturer (shared with the Department of Medicine) – Anatomical Pathology: 5 Professors, 4 Senior Lecturers, 2 Lecturers; Chemical Pathology: 1 Professor, 1 Senior Lecturer, 1 Lecturer; Haematology: 1 Senior Lecturer, 4 Lecturers, 1 half-time lecturer (Oncologist shared half and half with the Department of Medicine).

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.

Each member of the academic staff continues to work along the lines of teaching, research and service work without any planned weighting or streaming in terms of differential workloads. Replacing retired academic staff members in Anatomical Pathology has proven to be problematic and this sub-department still has three Professors working on post-retirement contracts and attempts to replace these persons by recruitment locally, regionally and internationally have not been successful so far. One of our

recent DM graduates is slated to undertake post-doctoral training in Canada to enable her to replace one of the retirees at the end of 2012.

A Laboratory Information System (LIS) Administrator was appointed effective April 1, 2012 and will be shared with the Department of Microbiology. He has begun the work necessary to train the staff and prepare departmental systems for the impending acquisition of an LIS. We still await the appointment of a Quality Assurance Manager to drive, coordinate and monitor the accreditation of the laboratories, without which we are still unable to attract research projects from international collaborators. We still await administrative appointments and reform in the Department as requested for the past two years such as:

- The rationalizing and reclassification of the Departmental administrative staff so as to better cope with the ever increasing administrative load being placed on 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

Despite numerous problems, the department continues to perform all of its functions at a commendable level. The Chemical Pathology and Haematology Subdepartments have attempted to maintain modern, cutting edge services by entering into lease-service contracts with large suppliers of laboratory reagents. This has allowed us to always have the best analysers available without significant capital outlay, and to get optimal cost-benefit from our reagents. The Histology Laboratory is badly in need of automation for routine and immunohistochemical functions. This laboratory continues to be plagued by unstable voltage as well as poor airconditioning and fume extraction systems. The Renal Pathology Unit is in desperate need of revitalization and new technology, including an electron microscope.

Our laboratory and autopsy services continued to provide invaluable support to the care of the in- and outpatients of the UHWI, as well as to patients from other medical facilities and institutions, both national and regional.

A total of 535,583 tests were performed by the Chemical Pathology Laboratory and 150,268 by the Routine Haematology Laboratory. The Blood Bank performed 26,538 tests and collected 4,427 units of blood from voluntary donors. The Flow Cytometry Unit processed 59 cases. The Cytology Laboratory processed 4,285 pap smears (64,275 units of work) and 703 non-gynaecological cases (91,390 units of work). The Histopathology Laboratory accessioned and processed 8,768 surgical cases which generated 46,426 tests (including routine, histochemical and immunohistochemical stains), amounting to over 671,882 units of work.

A total of 199 autopsies were performed, including 43 perinatal autopsies.

Academic Innovations

The department co-hosted two international conferences that were of groundbreaking significance. The first was held on April 20, 2012 in the Main Medical Lecture Theatre (MMLT), UWI, and was a Surgical Pathology Conference put on by us and members of the Faculty of the Mayo Clinic, Rochester, Minnesota, USA. This conference is slated to be an annual event and marks an era of collaboration between the pathologists of both institutions.

The second conference was the First International Forensic Medicine Conference that was held on May 26 and 27, 2012, at the MMLT, UWI under the auspices of our department and that of the Centre for Forensic Science and Medicine, Toronto, Canada. This seminal conference and associated workshops sought to bring together all players and interest groups, governmental and civil, concerned with the development and capacity building of Forensic Pathology and its associated Forensic Sciences in Jamaica.

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 admirably and the Report on the Student Self-Study for the Accreditation Process of the Faculty of Medical Sciences, Mona Campus, UWI, 2011, noted that the medical students:

- Selected the Pathology & Microbiology and Gynaecology clerkships as being the best clerkships
- Scored the Pathology & Microbiology Clerkship with the highest positive ratings (93.8%) where the quality of “Lectures/Conferences” was concerned.

Graduate Programmes

The DM Programme in Anatomical Pathology currently has 17 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 7 registered candidates and the DM in Chemical Pathology has one.

INFRASTRUCTURE DEVELOPMENT & FACILITIES

Academic, administrative, stores and support staff have moved into their respective refurbished offices and work areas, which are more functional and aesthetically reflective of what the department should be throughout. We are still short of space and facilities for the use of postgraduate students, storage of records, supplies, archival material, etc, and further refurbishing is still necessary in some decrepit areas of our physical plant.

RESEARCH & INNOVATION

The Jamaica Cancer Registry

The registration of cancers from 2008 until the current date continues, with the purpose of preparing the next 5-year cancer incidence report, which will cover the period 2008 – 2012. It is expected that this report will be available for publication in 2014, pending the processes of verification of cases and data analysis.

During the year, the cancer registration software was upgraded to CanReg® version 5, provided by the International Agency for Research on Cancer (IARC). After initial testing, this programme is currently being used exclusively for registration of new cases.

The Registry has also submitted paediatric cancer cases to IARC for inclusion in the third volume of “International Incidence of Childhood Cancer”.

The Registry, in addition to investigating overall age-specific cancer incidence rates, has focused on specific cancers, analyzing the epidemiology of thyroid cancer, soft tissue sarcomas, childhood malignancies, malignancies in adolescents and young adults and head and neck cancers. These projects have already been translated into papers, most of which are *In press*, and one of which has already been published.

The JCR has also actively supported the Elective programme in the undergraduate curriculum, accommodating six medical students, who participated in four cancer research projects. One of these students (Mr. Kurt Blake), presented his work (*A 30 Year Review of Paediatric Central Nervous System Malignancies in Jamaica: 1978 – 2007*) at the 2011 Faculty of

Medical Sciences Annual Research Conference, and was awarded the prize for the Best Poster.

Ms. Miguella Marius (*Epidemiologic Features of Osteosarcoma in Kingston and St. Andrew, Jamaica, 1978 – 2007*) and the team of Ms. Brittany Banbury and Mr. Andre McDaniel (*A 20-Year Review of Primary Ovarian Malignancies in Jamaica, 1988 – 2007*) have submitted their projects for the next Research Conference. Ms. Carlene Liburd (*Epidemiology of Malignant Melanoma in Jamaica, 1958 – 2007*) is preparing a manuscript for publication.

As has been the tradition, the Registry has provided information on cancers to members of the medical community, the Ministry of Health, and to assist in various research projects.

PAPERS PRESENTED

Dr K Bishop

- “Perinatal Pathology Report January – December 2011: Analysis of Data”, 11th Annual Perinatal Conference: Faculty of Medical Sciences, The University of the West Indies, Mona, February 11-12, 2012
- “Perinatal Pathology Report January – December 2011” S. Allen. 11th Annual Perinatal Conference: Faculty of Medical Sciences, The University of the West Indies, Mona, February 11-12, 2012
- “Twin Placentation and Related Pathology”. 11th Annual Perinatal Conference: Faculty of Medical Sciences, The University of the West Indies, Mona, February 11-12, 2012
- “Fatal Child Abuse”. First International Forensic Medicine Conference. Faculty of Medical Sciences, UWI and Centre for Forensic Science & Medicine, University of Toronto, Main Medical Lecture Theatre, UWI, Mona, May 26-27, 2012

Professor K Coard

- “The influence of sexual behaviour, sexually transmitted infections and condom use on prostate cancer risk in Jamaican men: a case-control study”. WD Aiken, FL Bennett, CM Simpson-Smith, MK Tulloch-Reid, N, McFarlane-Anderson, T Tulloch, RL Wan, R Mayhew, BF Morrison, TJ Paul, MD Jackson. 57th Scientific Meeting of the Caribbean Health Research Council, Cayman Islands. April, 2012.
- “Pathological outcome and biochemical recurrence free survival following radical prostatectomy in African American, Afro-Caribbean (Jamaican) and Caucasian men: an international comparison.” Chad R. Ritch, Belinda F. Morrison, Greg W. Hruby, William D. Aiken, Mitchell C. Benson, James M. McKiernan. American Urology Association (AUA) Annual Meeting, USA. May 2012.
- “The influence of sexual behaviour, sexually transmitted infections and condom use on prostate cancer risk in Jamaican men: a case-control study.” William D Aiken, Marshall K Tulloch-Reid, Franklyn L Bennett, Candace M Simpson-Smith, Norma McFarlane-Anderson, Trevor Tulloch, Robert L Wan, Lorna Gibson, Maria D Jackson. 4th International African-Caribbean Cancer Consortium Conference, USA. July 2012.

Dr L Dilworth

- Biochemical Profile of Tuber crops and the Implications for Preserving Regional Biodiversity. XV congreso de la Sociedad Mesoamericana para la biología y la conservación: Simposio: Los huertos familiares de Mesoamérica su importancia florística, ecológica, económica, etnobotánica, alternativas de uso Y su conservación. Yucatán, Mexico 2011.
- “El Huerto familiar “Batey” finca agrícola del caribe un estadio de caso en Jamaica.” JS Flores, J K-B y R V Ricalde. XV congreso de la Sociedad Mesoamericana para la biología y la conservación:

Simposio: Los huertos familiares de Mesoamérica su importancia florística, ecológica, económica, etnobotánica, alternativas de uso Y su conservación. Yucatán, Mexico 2011.

- “Risk awareness of students to welding operations in Jamaican urban high schools.” C Johnson, A Simpson and PF Brown. UWI/UNESCO-Caribbean Conference on Technical Vocational Education & Training (TVET), March 7-9, 2012.
- “Beneficial effects of Jamaican bitter yam biomaterials in hypercholesterolemic mice.” (Poster). Stennett, D.K., Wheatley, A, McGrowder, D., Asemota, H., (2012) Experimental Biology Meeting, San Diego, California, USA, April, 2012.

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.” (Poster). **Harrison SR**, McFarlane-Anderson ND, Reid ME. 4th International African-Caribbean Cancer Consortium (AC3) Conference, Lincoln University Graduate Center, Philadelphia, Pennsylvania, USA, July 21-22, 2012.

Dr T Gibson

- (a) “Cancer incidence in Jamaica. Inaugural University of the West Indies”
- (b) “Genetics in Pathology at UWI: Today and tomorrow”

Both presented at the Inaugural UWI / Mayo Clinic Surgical Pathology Conference, Kingston, Jamaica, April 2012.

- “Cancer burden in Jamaica.” 4th International African-Caribbean Cancer Consortium Conference. Philadelphia, Pennsylvania, U.S.A., July 2012
- “Demographic profile of leukaemia in Kingston and St. Andrew, Jamaica, 1978 – 2007.”(poster). **JE Taylor-Houston, DA Lowe, B Hanchard, N Waugh, D McNaughton** Faculty of Medical

Sciences Annual Research Conference, Kingston, Jamaica, November 2011.

Dr J Jaggon

- “A 30-year review of paediatric central nervous system malignancies in Jamaica: 1978-2007.” (Poster) KEG Blake, **K Bishop, B Hanchard, T Gibson**, N Waugh, D McNaughton, **G Char**. 20th Annual Research Conference: Faculty of Medical Sciences, The University of the West Indies, Mona. November 2011.
- “Pathology of Pineal Region Tumors” **G Char**, R Thompson. Caribbean Neurosciences Symposium, January 2012, Montego Bay, Jamaica.

Dr S Shirley

- “Pathologic appraisals of core needle biopsies of the breast: How far can you go?” The Professor Stanley Brooks Memorial Lecture, 17th Annual symposium of the Jamaican Association of Clinical Pathologists, November 6, 2011, Knutsford Court Hotel, Kingston, Jamaica.
- “Breast Cancer Pathology in Jamaica,” UWI/Mayo Clinic Inaugural Surgical Pathology Conference, April 20, 2012, Main Medical Lecture Theatre, FMS, UWI

PUBLICATIONS

Books and Monographs

Book Chapter

- * **D. McGrowder** (2012). Biochemical and molecular genetic testing used in the diagnosis and assessment of cystic fibrosis. In *Cystic Fibrosis – Renewed Hopes Through Research*. Editor Dinesh Sriramulu. Chapter 6, pages 123-150. *InTech Open Access Publishers*.

Refereed (Peer-Reviewed) Journal Articles

- * **Coard KCM**. Aortic Dissection at the UHWI: “A 20-year clinicopathological study of autopsy cases”. *BMC Research Notes* 2011, 4:348.
- * Tulloch-Reid MK, Aiken WD, Morrison BF, Tulloch T, Mayhew R, Wan R L, Bennett F I, **Coard KC**, Jackson MD. “Body mass index and prostate specific antigen levels in Jamaican men”. *WTMJ*. 2011; 60: 316-321.
- * Heslop OD, Nyi Nyi M-P, Abbott S, Rainford Lois, Castle D, **Coard KCM**. “Disseminated Trichosporonosis in a burn patient: meningitis and cerebral abscess due to *Trichosporon asahii*”. *J Clin Microb*. 2011. 49: 4405-4408.
- * Jackson MD, Walker SP, Simpson -Smith CM, Lindsay CM, Smith G, McFarlane-Anderson N, Bennett FI, **Coard KCM** , Aiken WD, Tulloch T, Paul TJ., Wan RL. “Associations of whole-blood fatty acids and dietary intakes with prostate cancer in Jamaica”. *Cancer Causes Control* 2012. 23: 23-33.
- * Bullock R, Mayhew R, **Gibson T**, James M, Didier M, Nebhnani J. “Leiomyoma: an unusual bladder neoplasm”. *BMJ Case Reports* 2011; published online 15 August 2011
- * Thompson RK, **Gibson TN**, **Hanchard B**, McNaughton D, Waugh N. “Comparative analysis of thyroid carcinomas in Kingston and St. Andrew, Jamaica, between two consecutive 15-year periods”. *WTMJ* 2011; 60: 519-24.
- * Morrison BF, **Hanchard B**, Graham RP, Reid ME. “Penile cancer in Jamaicans managed at the University Hospital of the West Indies” *WTMJ*. 2011 Oct; 60 (5):525-30.
- * Whittle DO, Lee MG, **Hanchard B**. “Peutz-Jeghers syndrome” *WTMJ*. 2011 Jun; 60(3):340-3.
- * 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, Vol. 10 No. 1

- * Green C., Wheatley A. **McGrowder D., Dilworth L.,** Asemota H. “Hypolipidaemic effects of ortanique peel polymethoxylated flavanones in rats with diet-induced hypercholesterolaemia”. *Journal of Food Biochemistry*, 2011 35(5): 1555-1560.
- * Green, C., Asemota, H.N., Wheatley, A., **Hanchard B., Gibson, T., Dilworth L., McGrowder, D.** “Histopathological alterations in organ structure of hypercholesterolemic rats fed ortanique peel polymethoxylaed flavones”. *Basic and Applied Pathology* 2011; 4: 71-77
- * Green, C., Wheatley, A., **McGrowder, D., Dilworth L.,** Asemota, H.N. “Modulation of antioxidant enzymes activities and lipid peroxidation products in diet-induced hypercholesterolemic rats fed ortanique peel polymethoxylated flavones extract”. *Journal of Applied Biomedicine* 2012; 10: 91-101.
- * **Dilworth, L.,** Brown, K., Wright, R., Oliver, M. and Asemota, H. “Antioxidants, minerals and bioactive compounds in tropical staples”. *African Journal of Food Science and Technology* 2012; Vol. 3(4) pp. 90-98
- * D. McNaughton, W. Aiken, **D. McGrowder** (2011). “Factors affecting the practice of prostate cancer screening in a discrete population of doctors within the University Hospital of the West Indies”. *Asian Pacific Journal of Cancer Prevention* 12(5): 1201-1205.
- * M. Gossell-Williams, T. Hunter, C. Hyde, D. Simms-Stewart, H. Fletcher, **D. McGrowder,** C. Walters (2011). “Improvements in HDL-Cholesterol in postmenopausal women with pumpkin seed oil: Pilot study”. *Climacteric* 14(5): 558-564.
- * R. Irving, J. Mills, **E. Choo-Kang,** E.Y. Morrison, A. Mullings, R. Wright-Pascoe, W. McLaughlin, **D. McGrowder.** (2011). “Mosaic Pancreas or type 3 diabetes: The classification that

needs to be recognized”. *International Journal of Diabetes in Developing Countries* 30(3): 133-137.

- * **D. McGrowder**, Y. Frazer, L. Gordon, T. Crawford, J. Rawlins. (2012). “Elevated creatinine phosphokinase in patients with thyroid dysfunction”. *Nigerian Journal of Clinical Practice* 14:454-459.
- * **D. Brady-West, D. McGrowder** (2011). “Triple Negative Breast cancer: Therapeutic and Prognostic Implications”. *Asian Pacific Journal of Cancer Prevention* 12(8):2139-2143.
- * **D. McGrowder**, L. Anderson-Jackson, T. Crawford (2012). Prostate cancer and metabolic syndrome: is there a link? *Asian Pacific Journal of Cancer Prevention* 13:1-13.
- * D. Ragoobirsingh, **D. McGrowder** (2012). “A prospective study of children admitted for diabetes mellitus at a Jamaican Hospital. *Journal of Clinical and Diagnostic” Research*. 6(5): 832-834.
- * L. Gordon, **D. McGrowder**, Y. Pena, E. Cabrera, M. Lawrence-Wright (2012). “Effect of exercise therapy on lipid parameters indicators in patients with end-stage renal disease on haemodialysis”. *Journal of Laboratory Physicians* 4(1): 17-23.
- * L. Anderson-Jackson, D. McGrowder, R. Alexander-Lindo (2012). “Serum prostate-specific antigen and Gleason score in prostate biopsy in a private laboratory in Western Jamaica”. *Asian Pacific Journal of Cancer Prevention* 1453-1456.
- * Fletcher HM, **Wharfe GH**, Bambury I, **Williams E, Jaggon J**. “Ovarian lymphoma: a report of three cases”. *Journal of Obstetrics and Gynecology* October 2011, 31, 617-630.

Refereed (Peer-Reviewed) Journal Abstracts

- * Aiken WD, **Coard KC**, Bennett FL, Simpson-Smith CM, Tulloch-Reid MK, McFarlane-Anderson N, Tulloch T, Wan RL, Mayhew R, Morrison BF, Paul TJ, Jackson MD. The influence of sexual behaviour, sexually transmitted infections

and condom use on prostate cancer risk in Jamaican men: a case-control study. *WIMJ*. 2012; 61 (Suppl 2) 21.

- * **Dilworth L**, Johnston J. Biotechnological Applications of 3T3-L1 Cell Lines in Assessing Adipogenesis. *Journal of Arts Science and Technology*, 2012; 6 (Suppl 2): 18.
- * Stennett DK, Wheatley A, **Dilworth L**, McGrowder D, Asemota H. Beneficial effects of Jamaican bitter yam biomaterials in hypercholesterolemic mice. *FASEB* 2012; 26:576.11.
- * 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. *WIMJ*. 2011; 60: (Suppl 4) 37.

PUBLIC SERVICE

Dr K. Bishop

- Cytopathology Consultant, Jamaica Cancer Society

Dr D. Brady-West

- Assistant Editor, *West Indian Medical Journal*

Dr L Buchner-Daley

- UWI representative, Ministry of Health NPHL/NBTS Modernisation Committee

Professor G. Char

- Cytopathology Consultant, Jamaica Cancer Society

Dr Sheray Chin

- Reviewer, *Gynecologic Oncology* & *West Indian Medical Journal*
- Member, American Society of Clinical Oncology, Caribbean Association of Oncology and Haematology, Association of Consultant Physicians of Jamaica, Medical Association of Jamaica

Professor K. Coard

- Chairman, Research Grants Awards Committee of the Caribbean Cardiac Society.

Dr L Dilworth

- Member, University Council of Jamaica Evaluation and Accreditation Team

Professor C. Escoffery

- Cytopathology Consultant, Jamaica Cancer Society

Dr. T. Gibson

- Cytopathology Consultant, Jamaica Cancer Society

Professor B. Hanchard

- Executive Board Member, International Society of Retrovirology
- Member, Board of Directors & Cytopathology Consultant , Jamaica Cancer Society

Dr. J. Jaggon

- Cytopathology Consultant, Jamaica Cancer Society
- Assistant Secretary and Member, Jamaica League Against Epilepsy

Dr. D. Lowe

- Executive Member, Leukemia CARE
- Voluntary clinician, National Blood Transfusion Service Voluntary Blood Donor Drive
- Clinical Advocate, Jamaica Haemophilia Society

Dr. D. McGrowder

- President, Jamaican Association of Clinical Pathologists
- Vice President, Laboratory Association of Jamaica.
- Member, Accreditation Council, Jamaica National Agency for Accreditation

Professor D. Shah

- Deputy Chairman, Council, Professions Supplementary to Medicine, Ministry of Health, Jamaica
- Cytopathology Consultant, Jamaica Cancer Society

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. J. Taylor-Houston

- Chairperson, Leukaemia CARE

Dr G Wharfe

- Member, Caribbean Association of Oncology and Haematology
- Chair, Jamaica Haemophilia Committee

Dr. E. Williams

- Cytopathology Consultant, Jamaica Cancer Society

Dr. N. Williams

- Member, International Relations Committee of the American College of Gastroenterology
- Cytopathology Consultant, Jamaica Cancer Society
- Executive Member, UWI Medical Alumni Association
- Member, UWI Mentorship Programme
- Member, ICHS Alumnae Association “Big Sister” Programme
- Member, ICHS Alumnae Association Scholarship Committee