

## DEPARTMENT OF PATHOLOGY

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### WORK OF THE DEPARTMENT



**D**espite the various challenges and severe budgetary constraints, the performance of the Department in the period under review must be considered as exemplary. Over the year, research of the Department speaks for itself and the University has recognized this, by awarding the Principal's research award for "*the project attracting the most funding*" as well as for the "*best publication*."

The department has a total complement of 19 staff members, of whom two were away for studies and one on extended leave.

Nonetheless, the per capita publication in peer reviewed journals is just under one per staff member. In addition, presentations at various local and international conferences were much more than one per staff member. The quality of both published articles and presentations at conferences were of a high standard and were well received by both local and international attendees.

All members of staff were heavily involved in teaching undergraduate students reading for MB BS degrees. At the Stage I level, the methods of delivery included didactic lectures, POL's and seminars/tutorials. At the Stage II level, the clerkship rotation was intensive, with teaching three days a week for 10 weeks per clerkship group. The latter was done mainly by academic staff with the usual sessions by resident staff.

The department is still facing budgetary constraints, restricting the quality of research and teaching. Nonetheless, in the coming year we should be able to produce quality research work and also contribute towards high levels of training for both undergraduate and postgraduate students.

### Teaching

The Department is heavily involved in the teaching of undergraduate students at both Stage I and Stage II levels. At Stage I level, the classes taught during the period 2005/06 were the classes of 2008, 2009 and 2010. The number of students in each class was approximately 117, 150 and 165 respectively. The methods of delivery were didactic lectures, seminars/tutorials and POL's. Students from the class of 2007, which has approximately 110 students, were rotated throughout the year for their clinical clerkship. They had intensive teaching by both academic and resident staff.

The assessment of Stage I was done at the end of each year and at the end of three years when the students sat the BMed Sci examination. The examination consisted of a MCQ exam and an OSPE. The Department of Pathology was particularly heavily involved in finalizing these examinations. The academic staff was assessed by students at both stages and achieved scores of 3.8 to 4.9 for the lectures and clerkship teaching.

Postgraduate training leading to the DM in Anatomical Pathology, Haematology and Chemical Pathology degrees also had its almost full complement of students. One student completed Part I of the DM Anatomical Pathology examination and two students completed Part II of the DM Haematology courses. The department is proud to produce Pathologists and Haematologists for the needs of the Caribbean. Currently, there are five graduate students in Anatomical Pathology and three in Haematology. One student who enrolled for the DM in Chemical Pathology was asked to withdraw from the programme because of failure to progress.

The academic and resident staff also taught courses in basic and general Pathology to students of the University of Technology enrolled in the BSc Pharmacy programme and those at UWI enrolled in the BSc Physical Therapy and Diploma in Radiography programmes.

## **STAFF**

Dr. Tracey Gibson returned to the Department in September 2005 after completing a period of training at the University of Glasgow, Scotland. She was the first in her class and was awarded the MSc in Medical Genetics with distinction. The Department is very proud of her achievement. Since her return, she has written a proposal to start a Cytogenetics laboratory in the Department. The proposal has been submitted to the Dean of the Faculty of Medical Sciences. Dr. Karen Bishop returned in January 2006 from a Fellowship at the Hospital for Sick Children in Toronto, Canada

where she studied Paediatric Pathology and was awarded a Fellowship from the University of Toronto.

The members of staff in the department were actively involved in curriculum development and planning. Drs. Elaine Williams and Eric Choo-Kang continue to serve on the Curriculum Committee and Professor Coard, on the Assessment and Examinations Committee. The former two, were also active members of Stage I and Stage II committees. Other members of staff serving on the Curriculum Committee are Drs. Nadia Williams (Stage II) and Gilian Wharfe (Stage I and II). Dr. Elaine Williams also served on the Faculty Staff/Student Liaison Committee. Various staff members (Professor Coard, Drs. Elaine Williams, Doreen Brady-West, Tracey Gibson) attended staff development workshops in “*Standard setting*” organized by the Faculty. Professor Coard was also involved in conducting a Teaching Skills Workshop for Academic & Senior Administrative Staff, organized by the Instructional Development Unit of the University.

The staff members, in general, continued to develop in their areas of specialty. This contributed greatly to graduate training in the department. The Department of Pathology is the only institution in the Caribbean that trains Pathologists and Haematologists.

## **LABORATORY**

The laboratories within the department continue to play an important role in the training of both undergraduate and postgraduate students, by providing the required material for teaching and research.

A total of 641,274 tests were performed by the Chemical Pathology laboratory and 149,129 by the Haematology laboratory. The Blood Bank collected 3,844 units of blood from voluntary donors for the treatment of patients requiring whole blood transfusion or transfusion of various blood products which were manufactured from them. The Cytopathology laboratory processed 5,970 Pap smear samples and 1,009 non – gynaecology samples. The Histopathology laboratory processed 9,369 cases and produced 50,162 slides.

Funding for supplies, including reagents to process samples for the laboratories, has been increased but is still not adequate for the amount of work done. No master plan has been developed as yet. This was mentioned in the last year’s departmental report. It is extremely important to develop that plan for the smooth running of the laboratories.

The long affiliation with the National Cancer Institute and the Department of Pathology for the HTLV-1 Project will end in December 2006. The project, which investigated all aspects of HTLV-1 and its associated diseases in Jamaican patients, will have to continue at least, at a minimal level. The burden of funding which was shouldered by NCI/NIH will now have to be carried by the Department of Pathology and, by extension, the UWI.

The department is in the process of developing a comprehensive immunopathology laboratory which will not only take over some aspect of work done by the HTLV-1 laboratory but also what is done in the routine histopathology laboratory. This will require additional funding.

Dr. Tracey Gibson plans to start a Cytogenetics Laboratory for the benefit of dysmorphic children initially and to further extend the services to adult patients as well. The plan has been submitted to the Dean for his approval.

## RESEARCH

At least 14 high quality, peer-reviewed articles and 6 abstracts have been published in local and international journals. Not all members of staff have submitted work for this report. In addition, 27 research papers have been presented at various local, regional and international conferences by various members of staff.

The research continuing in the department includes HTLV-1 and its associated diseases, Prostate cancer, Cardiovascular diseases, Breast cancer, Gastrointestinal diseases and HPV-induced diseases. Other projects include: Immunohistochemical studies in hypertension and other diseases including breast cancers, renal and liver cadmium and heavy metal concentration studies in collaboration with Environmental and Nuclear Sciences (ICENS), aspects of Cytopathology, Perinatal mortality, Placental pathology, Cytogenetics, Neuropathology, Leukemia studies, Haemophilia, Causes of Anemia, and aspects of Blood Banking and Chemical Pathology.

## PAPERS PRESENTED

- Blake G., **Hanchard B**, **Gibson T**, Waugh N, Choy L, “Changing Trends in the Incidence of Clinical Cancer, Kingston and St. Andrew, Jamaica, 1973 -2002”, UICC World Cancer Congress 2006. Washington D.C. USA

- **Hanchard B.** “Head and Neck Cancer in Jamaica” Caribbean Association of Otolaryngologists, Annual Conference, Kingston 2006. Presidential Lecture.
- Murray CSG, Singh PDA., **Coard KCM**, Aiken W. “An investigation of the ability of LESCOL (fluvastatin) to initiate programmed cell death in human prostate cancer.” 51<sup>st</sup> Scientific Meeting of the Caribbean Health Research Council, St. Kitts, April 2006
- **Jaggon J**, “The role of Immunohistochemistry in Neuropathology”, Caribbean Neurosciences Symposium, University Hospital of the West Indies, 2006
- Skeete D, **Coard K** “Getting to the Heart of the Matter: An analysis of Cardiac Trauma Cases from the Autopsy Service, UHWI, 1996 - 2005”, 21<sup>st</sup> Caribbean Cardiology Conference, Montego Bay, Jamaica.
- Gaskin DA, Broome H, Gaskin PS, Ramesh J and **Williams NP**. “Colorectal Carcinoma in Barbados: Incidence and Anatomic Distribution”, Caribbean Health Research Council 51<sup>st</sup> Annual Council and Scientific Meetings, St. Kitts & Nevis April 26-29, 2006.
- **G. Wharfe**, “Thromboembolism an unusual complication of uterine fibroids” 51<sup>st</sup> Annual Council and Scientific Meetings, St. Kitts & Nevis, April 26 -29, 2006.
- Trevor Seaton, **Nadia Williams** and Barry Lumb, “A Clinical Potpourri in Gastroenterology” Association of West Indian Gastroenterologists, 20<sup>th</sup> Annual Meeting and International Postgraduate Course 2006, Bahamas, April 20-22, 2006
- **K. Bishop**, “Perinatal Audit: Pathology Critical Review 2001-2005”, Annual Perinatal Conference, UWI, Kingston, Jamaica, February 2006.
- **G. Wharfe**, “Clinical and Laboratory Features and Treatment of ATL in Jamaica” Scientific Session, UWI, Mona, February 2006
- **Jaggon J**, “Update on Mad Cow Disease” Symposium of the South Central Medical Association, October 2005
- **Escoffery, CT**. “Histology: Past, Present, Future” The Biennial General Meeting & Scientific Symposium of the Caribbean

Association of Medical Technologists (CASMET), October 26, 2005

- Hall CA, **Escoffery CT**, **Shirley SE**. “The pathology of ovarian tumours at the University Hospital of the West Indies, Jamaica, 2000-2002” 14<sup>th</sup> annual Research conference and Workshop on Clinical Trials, Faculty of Medical Sciences, UWI, Mona, November 16-18, 2005.
- Skeete DHA, **Shirley SE**, **Escoffery CT**, “Screening histories of incident cases of in-situ and invasive cervical cancer at the University Hospital of the West Indies, from 2002 to 2004.” Poster presentation, 14<sup>th</sup> Annual Research Conference and Workshop on Clinical Trials, Faculty of Medical Sciences, UWI, November 16-18, 2005.
- H. Brown, **K. Coard**, D.R. DuQuesnay, M. Newnham, D. Skeete “Hyperthyroidism: Where are we now?” 14<sup>th</sup> annual Research Conference of the Faculty of Medical Sciences, UWI, Main Lecture Theatre, Kingston, Jamaica.
- D. Skeete, **K. Coard**, “A 5-year clinicopathologic profile of patients with prostate cancer diagnosed by transrectal biopsy, at the University Hospital of the West Indies, Jamaica”. 8<sup>th</sup> UWI Medical Alumni Association International Medical Conference, St. George’s Grenada, November 2005
- C.S.G. Murray, P.D.A. Singh, **K.C.M. Coard**, W. Aiken. “An evaluation of the pro-apoptotic effects of Fluvastatin on human prostatic adenocarcinomas” 14<sup>th</sup> Annual Research Conference of the Faculty of Medical Sciences, Kingston Jamaica, November 2005.
- **K. Coard**, “Reporting in Prostate Cancer” 12<sup>th</sup> Annual Symposium of the Jamaican Association of Clinical Pathologists on Reporting in Pathology UHWI, Kingston, Jamaica, November 2005.
- **Nadia P. Williams**, “Reporting in Colon Cancer” Jamaican Association of Clinical Pathologists 12<sup>th</sup> Annual Scientific Symposium on Reporting in Pathology, November 2005.
- **G. Wharfe**, “Chemotherapy for ovarian cancer” American College of Obstetricians & Gynaecologists Junior Fellows Meeting, Main Lecture Theatre, UHWI, September 2005

- **G. Wharfe**, “Systemic treatment of Breast Cancer” Cancer Society Meeting. October 2005.
- **Shirley SE**, “Recent developments in Cytology” Scientific Symposium of the Caribbean Association of Medical Technologists (CASMET) Montego Bay, Jamaica, October 2005.
- **Shirley SE**, “Reporting in Breast Cancer” Jamaican Association of Clinical Pathologists 12<sup>th</sup> Annual Scientific Symposium on Reporting in Pathology, November 2005.
- **G. Wharfe**, “Reporting in Lymphomas”, Jamaican Association of Clinical Pathologists 12<sup>th</sup> Annual Scientific Symposium on Reporting in Pathology, November 2005.
- SJ Davidson, **D. McGrowder**, JF. Burman, AA. Kelleher, “Can Rotem predict post-operative bleeding and appropriate treatment after cardiac surgery?” The International Society on Thrombosis and Haemostasis XXth Congress and 51<sup>st</sup> Annual Meeting of the Scientific and Standard Committee. August 6-12, 2005, Sydney, Australia.
- **D. McGrowder**, T. Deboch, J. Julius, “Urinary fractionated normetanephrine and metanephrine measured by high pressure liquid chromatography with amperometric detection for the diagnosis of pheochromocytoma” Jamaican Association of Clinical Pathologists 12<sup>th</sup> Annual Scientific Symposium on Reporting in Pathology, November 2005.
- **D. McGrowder**, J. Julius, T. Crawford, K. Jones, “Deranged liver and renal function tests in pregnant women with abnormal glucose metabolism who develop hypertensive disorders” 12<sup>th</sup> Annual International Conference – The Diabetes Management Team, Ocho Rios, March 2-5, 2006

## PUBLICATIONS

*WIMJ = West Indian Medical Journal*

- \* West W, Fletcher H, **Hanchard B**, Rattray C, Vaughan K. “Bilateral Psoas Abscess in a Case of Granuloma Inguinale” *WIMJ*, 54 (5): (2005) 343-345.
- \* Plummer JM, **Gibson TN**, McFarlane MEC, **Hanchard B**, Martin A, McDonald AH, “Clinicopathologic Profile of Gastric

carcinomas at the University Hospital of the West Indies". *WIMJ*, 54 (6): (2005) 364-368.

- \* Yao K, Hisada M, Maloney E, Yamano Y, **Hanchard B**, Wilks R, Rios M, Jacobson S. "Human T-cell Lymphotropic Virus Types I and II Western Bolt Seroindeterminate Status and its Association with Exposure to Prototype HTLV-I". *Journal of Infectious Diseases* 193(3); 2006
- \* Biggar RJ, Ng J, Kim N, Hisada M, Li HC, **Cranston B**, **Hanchard B**, Maloney EM. "Human Leukocyte Antigen Concordance and the Transmission Risk Via Breast-Feeding of Human T-cell Lymphotropic Virus Type 1" *Journal of Infectious Diseases* 193(2); 2006
- \* **Blake G**, **Hanchard B**, **Gibson T**, Wolff C, Waugh N, Reynolds A. "Trends and Incidence and Histological Subtypes of Lung Cancer" *WIMJ*, 55(1): (2006) 13-18.
- \* West W, **Brady-West DC**, McDonald AH, **Hanchard B**, Fearon-Boothe D. "Ultrasound and White Blood Cell Counts in Suspected Acute Appendicitis" *WIMJ*, 55(2): (2006) 100-102
- \* Bonilla C, Mason T, Ahaghotu C, Chen W, Zhao A, Coulibaly A, **Bennett F**, Aiken W, Tullock T, **Coard K**, Freeman V, Kittles R. "E-cadherin polymorphisms and haplotypes influence risk for prostate cancer" *The Prostate* 66 (2006) 546-556.
- \* **Williams NP**, "A Caribbean perspective on Barrett's Oesophagus" *WIMJ*, 55 (2006) 148-5
- \* East-Innis A, Desnoes R, Thame K, **Shirley SE**, Gilbert D. "Pyoderma gangrenosum associated with osteomyelitis in a paediatric patient – a case report" *WIMJ*, 54(3) (2005): 207-9
- \* Phillips DI, **Bennett FI** et al "Maternal body composition, offspring blood pressure and the hypothalamic-pituitary-adrenal axis" *Paediatr Perinat Epidemiol* 2005; 19(4): 294-302.
- \* **DC Brady-West**, "Treatment of Multiple Myeloma – Something old, something new" *Postgraduate Medical Doctor Caribbean Vol. 22, No. 3: 71 -74.*



- \* **D. McGrowder**, K. Barrett, P. Brown and D. Ragoobirsingh “Exogenous nitric oxide inhibits glucose uptake in peripheral tissues of diabetic rat model” *Diabetologia Croatica* 2005;34(3):77-85.
- \* **D. McGrowder**, P. Brown and D. Ragoobirsingh “Acute effects of exogenous nitric oxide on glucose uptake in skeletal muscle of normoglycaemic and diabetic rats.” *Medical Science Monitor* 2006; 12(1):BR28-35.
- \* **D. McGrowder**, D. Ragoobirsingh and P. Brown “Therapeutic uses of Nitric Oxide-donating Drugs in the treatment of Cardiovascular diseases” *International Journal of Pharmacology* 2006; 4:366-373.

### Book Chapter

- \* **Hanchard B**, “Cancers – The Changing Patterns” In Owen Morgan (ed) Health Issues in the Caribbean 131-40; 2005.

### Abstracts

- \* Skeete DHA, **Shirley SE**, **Escoffery CT**. “Screening histories of incident cases of in-situ and invasive cervical cancer at the University Hospital of the West Indies, 2002 -2004”, *WIMJ*, (2005): 54 (Suppl.) 39.
- \* Hall CA, **Escoffery CT**, **Shirley SE**. “The pathology of ovarian tumours at the University Hospital of the West Indies, 2000 – 2002” *WIMJ*, 2005: 54 (Suppl. 5).
- \* D Skeete , **K Coard**. “A 5-year clinicopathologic profile of patients with prostate cancer diagnosed by transrectal biopsy, at the University Hospital of the West Indies (UHWI), Jamaica” *WIMJ*. 54 (Suppl 4); 16: 2005.
- \* H. Brown, **K. Coard**, D.R. DuQuesnay, M. Newnham, D. Skeete “Where are we now? Hyperthyroidism”: *WIMJ*. 53 (Suppl 5); 40: 2005.
- \* CSG. Murray, PDA Singh, **KCM Coard**, W. Aiken. “An evaluation of the pro-apoptotic effect of fluvastatin on human prostatic adenocarcinomas” *WIMJ*. 53; (Suppl 5); 38: 2005.

- \* CSG. Murray, PDA Singh, **KCM Coard**, W.Aiken “An investigation of the ability of LESCOL ® (fluvastatin) to initiate programmed cell death in human prostate cancer” *WIMJ*. 55 (Suppl 2) 63: 2006.

## **PUBLIC SERVICE**

### **Professor B. Hanchard**

- Board of Directors, Jamaica Cancer Society

### **Professor K. Coard**

- Secretary, Caribbean Cardiac Society
- Chairman, Research Grants Awards Committee
- UWI Mentorship Programme

### **Dr. E. Williams**

- Cytopathology Consultation, Jamaica Cancer Society

### **Dr. N. Williams**

- Member, UWI Medical Alumni Association
- Co-Host, Radio Mona Programme
- Mentor, UWI Mentorship Programme

### **Professor C. Escoffery**

- Cytopathology Consultation, Jamaica Cancer Society

### **Dr. T. Gibson**

- Cytopathology Consultation, Jamaica Cancer Society

### **Dr. J. Jaggon**

- Cytopathology Consultation, Jamaica Cancer Society

### **Dr. L. Buchner**

- Board Member, Penwood Dental Clinic

### **Dr. J. Taylor-Houston**

- Member, Leukaemia Care Foundation

### **Dr. D. McGrowder**

- Member, Asian Journal of Biochemistry
- Member, Trends in Medical Research

### **Income Generation**

HTLV -1 Project continues to generate funds for the Department. The year in review generated US\$431,702.00.

A new contract has been signed with NCI/NIH by the Department for ATL treatment study for US\$99,000. The Principal Investigator will be Dr. Gilian Wharfe.

The other projects to be developed in the department include a Cytogenetics laboratory, and an Immunopathology laboratory which have the potential to generate a substantial amount of funding.

Cytopathology training can also generate funds by training of students.

### **Awards**

- Principal's Research Award for the "*Project Attracting the Most Research Funds*" for "*Research on Epidemiology of HTLV-1 in Jamaica*". **Hanchard B, Wharfe G, Williams N**, East-Innis A, **Williams E, Cranston B**. Research Day 2006.
- Award for the "*Best Publication*" in the Faculty of Medical Sciences, University of the West Indies, **Coard K**, Research Day 2006
- "Fellowship in Paediatric Pathology" **Bishop K**, The Hospital for Sick Children, Toronto, Canada; January 1, 2004 – December 31, 2005.
- "Master of Science (Distinction), Medical Genetics", **Gibson T**, University of Glasgow, Scotland. December 2005.