

DEPARTMENT OF PATHOLOGY

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

SUMMARY

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, Chemical Pathology and Haematology. Our laboratories/service units are Histology, Cytology, Autopsy, Clinical Chemistry, Routine Haematology, Blood Bank and Cytogenetics, and we also have Flow Cytometry and Immuno-histochemistry subunits.



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, 2 Senior Lecturers; Haematology: 1 Senior Lecturer, 4 lecturers, 1 half-time lecturer. In addition to teaching undergraduate and postgraduate students in the MBBS and DM programmes respectively, the academic staff also provides consultation services to the University Hospital of the West Indies in the subspecialties in laboratory pathology, as well as in clinical haematology and oncology. All are also actively engaged in research.

In addition to the academic staff, there are 40 full-time medical and laboratory technologists and administrative, secretarial and clerical staff, photographers, laboratory attendants, etc, giving a total staff complement of 100.

Commercialization

We continued to generate some income by way of fee collection for outpatient tests performed for the University Hospital of the West Indies. We have not yet managed to collect for inpatient tests. There is therefore still a significant deficit between our budget and earnings on the one hand and our expenditure on the other.

Infrastructure/Refurbishing

The refurbishing of the Seminar Room has been completed but the multimedia equipment and furniture have not yet been installed. The refurbishing of the Autopsy Room has been largely completed but full usage awaits the final correction of minor problems. The refurbishing of the Teaching Laboratory (Pathology & Microbiology) is nearing completion. Plans for the proposed annex of offices as well as the refurbishing of the stores and other areas of the Department await costing and approval by the Projects Office.

Staffing/Administrative Reform

We await the appointments of a **Business Manager** to deal with the financial aspects of running the laboratories, a **Quality Assurance Manager** to carry the accreditation process of the laboratories forward and an **Information Technology Manager** to administer the numerous IT requirements of the Department. We also await the administrative audit and reform process promised by the Human Relations Management Division.

Laboratory Information System

The Laboratory Information System Committee has been meeting with prospective suppliers to decide on a suitable system for acquisition.

Laboratories and Autopsy Service

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 539,177 tests were performed by the Chemical Pathology Laboratory and 82,408 by the Haematology Laboratory. The Blood Bank performed 40,217 tests and collected 3,972 units of blood from voluntary donors. The Cytology Laboratory processed 5453 pap smears and 736 non-gynaecological specimens. The Histopathology Laboratory accessioned and processed 13,265 surgical cases which generated 43,177 tests representing 4,317,522 units of work. A total of 218 autopsies were performed.

The Jamaica Cancer Registry

The Jamaica Cancer Registry continues its role as the major source of cancer incidence data in the country, utilized as a research resource by the Faculty and health administrators to develop policies for the delivery of health care to the population.

This year the report on cancer incidence for the period 2002-2006 was completed and submitted to the West Indian Medical Journal for publication. This constitutes the latest in the series of five-yearly reports on cancer incidence produced by the registry and published regularly since its inception in 1958.

The other major study for this year was a thirty-year review of trends in prostate cancer in Jamaican men with comparisons with data from other Caribbean islands and with the black populations in both the USA and Great Britain. This also has been submitted to the West Indian Medical Journal for publication.

Work continues with the data collection for the years 2006-2010 with a view to publishing the complete report when all the data has been collected and analysed.

The Registry was represented by Miss Nadeen Waugh, Research Nurse, at the PAHO-IARC meeting on “Improving Information on Cancer in the Region” in Brasilia, Brazil, October 13-14, 2009.

TEACHING

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.

The lack of a Museum is a major hindrance to our teaching effort. We need help and funding to enable us to relocate the Museum to rooms in the Rippel Building that were previously occupied by the Department of Surgery, Radiology, Anaesthetics and Intensive Care, and to try to establish a modern facility with multimedia and interactive functions.

Despite all the odds, however, our lecturers performed their assigned tasks admirably and were consistently rewarded with high assessment scores by the students, averaging over 4.0 for the Department as a whole.

The DM Programme in Anatomical Pathology registered five new entrants on July 1, 2010, an enviable and unprecedented occurrence for the Department. Two candidates, Drs Mahiri Bromfield and Mandi Pedican, successfully completed the DM Part II examination in November 2009, and graduated as Anatomical Pathologists. Dr Nadia Williams continued as the Director of the Residency Programme in Anatomical Pathology (DM Pathology Graduate Programme) and Departmental Representative on the FMS Committee for Graduate Studies.

Several members of staff were involved in the supervision of MPhil and PhD candidates registered in the Department of Basic Medical Sciences. In addition, Dr Tracey Gibson taught courses in Genetics to postgraduate students in the DM Surgery and DM Psychiatry Programmes, and Dr Sheray Chin supervises postgraduate students enrolled in the DM Internal Medicine Programme. Dr Chin was also instrumental in the establishment of Multidisciplinary Tumour Boards, the monthly meetings of which

provide a forum for teaching and management of, and research into a variety of cancer cases.

PROGRAMME DEVELOPMENT

DM programme (Haematology/Oncology)

The proposal for the DM (Haematology/Oncology) programme has been submitted to Graduate studies for approval. This would replace the existing DM (Haematology) programme and allow the incorporation of training in Oncology as a core component of the specialty of Haematology/Oncology.

STAFF & RESEARCH

Research Grants/Funding Received

Dr Tracey Gibson has spearheaded the new Cytogenetics Laboratory in the Department (sited in the former Labs 7 & 7A of the Rippel Building). This laboratory will provide much needed diagnostic and research opportunities in the area of Cytogenetics.

The initial funding of **J\$11 million** provided by the CHASE Fund last academic year, was supplemented in November 2009 by an additional grant of approximately **J\$6.7 million**. The infrastructural work has almost been completed and equipment has been bought and will be installed soon.

Dr Sheray Chin received two grants for the following projects:

- “Locally Advanced Breast Cancer in Jamaica: disease characteristics and response to neoadjuvant chemotherapy”, funded by the Research Fellowship Committee, Office of the Principal, UWI. The value of the grant is **J\$1.5M** and the project duration is September 1, 2010 - August 31, 2013.
- “Locally Advanced Breast Cancer in Jamaica: disease characteristics and response to neoadjuvant chemotherapy”, funded by the Scientific and Management Committee of the Caribbean Health Research Council. The value of the grant is

US\$5,000 and the project duration is September 1, 2010 - August 31, 2015.

Dr Jacqueline Jaggon is co-Principal Investigator (with Dr. Peter Johnson (Radiology) Dr Carl Bruce (Neurosurgery) on the project “Development of an Intra-cranial Tumor Registry at the University Hospital of the West Indies” for which they received a grant of **J\$1.2M**.

PAPERS PRESENTED

Dr K Bishop

- “Childhood Cancer in Jamaica”. Hospital for Sick Kids, Toronto-UHWI Oncology Initiative, April 22-23, 2010.
- (with Johnson N, Trotman H, Reid M.). “Congenital Abnormalities at a Tertiary Centre in Jamaica – An 18 month Maternal – Fetal Medicine Experience”, International Society for Prenatal Diagnosis 15th International Conference 2010; Amsterdam, Netherlands, Europe: July 11-14, 2010.

Dr J Jaggon

- “Hemangioblastomas at the University Hospital of the West Indies.” 6th Caribbean Neuroscience Symposium Montego Bay, Jamaica, January 2010.

Dr S Chin

- “The predictive value of urinary VMA testing in the diagnosis of pheochromocytoma at the University Hospital of the West Indies.” 55th Annual Caribbean Health Research Council (CHRC) Scientific Conference, Hyatt Regency Trinidad Hotel, Trinidad, April 2010.
- “Guidelines in the supportive management of patients receiving chemotherapy.” Caribbean College of Family Physicians, Medallion Hall Hotel, Kingston, Jamaica, July 25, 2010

Dr D Lowe

- “Metastases of Unknown Primary - Is treatment worth it without finding the needle?”. Annual Symposium of the Jamaican Association of Clinical Pathologists (JACP). Kingston, Jamaica, November 2009
- “Standard Therapy in Advanced Hodgkin Lymphoma”, Annual Palliative Care Symposium, Hope Institute, Kingston, Jamaica, April 23, 2010.

Dr D McGrowder

- (with Hutton-Rose N, Blythe C, Ogbano C). “The prevalence of other sexually transmitted infections in confirmed HIV cases at a referral clinic in Jamaica.” Caribbean Health Research Council. Proceedings of the 55th Annual Council and Scientific Meetings, Hyatt Regency Trinidad Hotel, Trinidad and Tobago. April 21–24, 2010.
- (with Chin SN, Boyne MS, McGrowder D., Gibson TN, McKenzie CA). “The positive value of urinary VMA testing in the diagnosis of pheochromocytoma at the University Hospital of the West Indies.” Caribbean Health Research Council. 55th Annual Council and Scientific Meetings, April 21–24, 2010, Hyatt Regency Trinidad Hotel, Trinidad and Tobago.
- (with Hyde C, Gossell-Williams M., Hunter T, Simms-Stewart D, McGrowder D, Fletcher H, Choo-Kang E). “Pumpkin seed oil supplementation improves HDL and LDL cholesterol in post-menopausal women: A random double-blind pilot study”. Experimental Biology 2010, Anaheim California, USA. April 24-28, 2010.
- (with Gordon L, Morrison E, Garwood D, Y. Terry Pena Fraser). “Effect of exercise therapy on lipid profile and oxidative stress in patients with type 2 diabetes. IDF 20th World Diabetes Congress, Montreal, Quebec, Canada, October 18-22, 2009.

Prof D Shah

- (with Miller M and Gooding M). “Renal biopsies in Jamaican children” 2nd International Conference on Nephrology and Hypertension” Montego Bay, Jamaica, January 2010
- (with Gooding M and Miller M). “Histology in Jamaican children with nephritic syndrome” 2nd International Conference on Nephrology and Hypertension, Montego Bay, Jamaica, January 2010
- (with Soyibo AK, Barton EN, Williams W and Smith R). “Renal biopsies in Jamaican adults” 2nd International Conference on Nephrology and Hypertension, Montego Bay, Jamaica, January 2010

Dr G Wharfe

- “Road to classifying AML – Can we afford the tolls” Annual Symposium of the Jamaican Association of Clinical Pathologists (JACP). Kingston, Jamaica, November 2009

Dr N Williams

- (with Graham RPD, Plummer JM, West KA). “Lymph Node Resection for Colorectal Cancer: Ensuring Standards, Improving Quality. Association of Surgeons in Jamaica” 51st Annual Clinical Conference, Kingston Jamaica, May 16-17, 2009
- “Adenoma – Carcinoma Sequence” Jamaica Cancer Society Colon Cancer Symposium, Kingston Jamaica, March 14, 2010.

Paper presented at the 18th Annual Research Conference: Faculty of Medical Sciences, University of the West Indies, Mona, UWI, November 2009.

Dr K Bishop

- (with Dupuis C, Miller Nanton P, Clarke K, Bolt CS, Chin See CK). “Perinatal Autopsy Rates at University Hospital of the West Indies.”

- (with Brown C, McFarlane-Anderson N, Lindo L, Dasgupta T). “The effects of s-nitroso-n-acetylpenicillamine and s-nitrosoglutathione on blood pressure, urinary protein concentration and pup weight in pregnant rats”.

Professor K Coard

- (with Morrison B, Gordon-Strachan G, Miller R, Aiken W, Mayhew R). “Radical prostatectomy outcomes at the University Hospital of the West Indies: 2000-2007”.

Dr D McGrowder

- (with Green CO, Wheatley AO, Dilworth LL, Dilworth LL, Hanchard B, Gibson TN, Asemota HN). “Histopathological changes in organs of diet-induced hypercholesterolaemic rats fed ortanique peel polymethoxylated flavones.”
- (with Chin SN, Boyne MS, Gibson TN, McKenzie CA). “The positive value of urinary VMA testing in the diagnosis of pheochromocytoma at the University Hospital of the West Indies”.

Dr T Gibson

- “Soft tissue sarcomas: Beyond Morphology.” Annual Symposium of the Jamaican Association of Clinical Pathologists (JACP). Kingston, Jamaica, November 2009.

Paper presented at 4th Annual Conference of the Caribbean Association of Oncologists and Haematologists, Montego Bay, Jamaica, April 2010.

Dr S Chin

- “Management of Triple Negative Breast Cancer.”

Dr T Gibson

- “Setting up Cancer Registries.”

- “Cancer incidence in Jamaica”.

Dr D Lowe

- “Predicting Clinical Outcome in Chronic Lymphocytic Leukaemia - How and Why?”

Dr S Shirley

- “Can we do without histopathology? The evolving role of gene expression profiling in node negative breast cancer.”

PUBLICATIONS

Refereed (Peer-Reviewed) Journal Articles

- * West WM, Younger N, **Brady-West D**, Gilbert DT, **Char G**, Barton EN. “Stroke Subtypes on Imaging in a Jamaican Population: A Hospital Based Study.” *WTMJ*, 2009; 58(3):261-264
- * Ali A, **Char G**, **Hanchard B**. “Chronic Inflammatory demyelinating polyneuropathy in a patient infected with human T lymphocytic virus type 1.” *BMJ Case Reports* 2009, 1680
- * **Char G**, West K, **Jaggon J**. “Intracranial Abscesses: Epidemiological trend over a 39-year period at the University of the West Indies.” *The Internet Journal of Third World Medicine*. 2009 Volume 8 Number 2
- * Leake P-A, **Coard KC**, Plummer JM. “Extramedullary plasmacytoma of the pancreas as an uncommon cause of obstructive jaundice: A case report.” *Journal of Medical Case Reports* 2009, 3:8785
- * Graham RP, **Coard KCM**. “Angiomyolipoma of kidney: The experience at the University Hospital of the West Indies”. *WTMJ*. 2009; 58: 555-559.

- * **Jaggon J, Bishop K**, Pedican M, Halliday W, Melbourne-Chambers R, Tapper J. "Atypical Teratoid/Rhabdoid Tumor: An unusual variant of a rare entity." *Internet Journal of Oncology*. 2009; Volume 6 Number 2. www.ispub.com
- * **Jaggon J**, Bolt C, Melbourne-Chambers R, MooSang M. "Acute hemorrhagic leukoencephalitis in a patient with sickle cell disease: a case report." *Internet Journal of Pathology*, 2009, Vol.8 No. 2. www.ispub.com
- * **Jaggon J, Char G**. "Hemangioblastomas at the University Hospital of the West Indies: a retrospective survey and review of the literature." *The Internet Journal of Third World Medicine*. 2009, 8:1
- * Crawford T, **McGrowder D**, Crawford A. "Access to contraception by minors in Jamaica: a public health concern." *North American Journal of Medical Sciences* 2009; 5: 247-255.
- * **Buchner L**, Alfred R, Soyibo A, **Brady-West D**, Hardie R, **McGrowder D**. "Late onset Fanconi Anaemia in an Afro-Caribbean patient." *Journal of National Medical Association* 2010; 102: 132-134.
- * **Chin SN**, Wang L, Moore MM, Sridhar SS. "A review of the patterns of docetaxel use for hormone-resistant prostate cancer at the Princess Margaret Hospital." *Current Oncology*, 2010; 17: 24-9
- * Gordon L, Morrison E.Y. St. A, Ragoobirsingh D, Martorell E, **Choo-Kang E**, **McGrowder D**. "Lipid profile in obese, hypertensive and Type 2 diabetes mellitus in the Jamaican population." *Journal of Laboratory Physicians* 2010; 2: 25-30.
- * Jackson MD, Walker SP, Simpson CM, McFarlane-Anderson N, **Bennett FI**, **Coard KCM**, Aiken WD, Tulloch T, Paul TJ, Wan RL. "Body size and prostate cancer in Jamaican men." *Cancer Causes Control*. 2010; 21: 909-917.

- * **McGrowder D.** “The use of soluble transferring receptor in drug testing and as a marker of iron status in athletes.” *Biochemistry Insights* 2010; 3:7-18.
- * **SE Shirley**, PA Sinclair, MA Stennett, G Codrington, R Bhatt, **CT Escoffery.** “The Pathology of Breast Cancer in Jamaica: The National Public Health Laboratory Study.” *WIMJ*, 2010; 59: 177-81.
- * Fletcher H, Gibson R, **Williams N, Wharfe G**, Nicholson A, Soares D. “A woman with diabetes presenting with pyomyoma and treated with subtotal hysterectomy: a case report. *Journal of Medical Case Reports* 2009; 3:7439.
- * Brooks A, Fletcher HM, Gordon-Strachan G, Pelican M, **Wharfe G, Williams NP.** “Venous thromboembolism as a complication of uterine fibroids: A retrospective description study”. *Journal of Obstetrics and Gynaecology* 2009; 29 (8) 732-736.
- * Frankson M, Lee M, Nicholson A, Walwyn M, **Wharfe G.** “Febrile neutropenia in cancer patients”. *WIMJ*, 2010;59(2) 209-14.
- * **Williams NP** and Clare Lyn Shue A. “Rhabdomyomatous Mesenchymal Hamartoma: Clinical overview and report of a case with spontaneous regression.” *WIMJ*, 2009; 58:607-609.
- * Fletcher HM, **Wharfe G, Williams NP**, Pedican M, Brooks A, Scott P and Gordon-Strachan G. “Venous Thromboembolism in Jamaican Women: Experience in a University Hospital in Kingston.” *WIMJ*, 2009;58:243-249.
- * Ogunsalu C, Scipio E and **Williams N.** “Review of six cases of maxillary ameloblastoma from the West Indies re-entry cryosurgery as prophylactic surgical intervention.” *WIMJ*, 2009;58:398-403.
- * Plummer JM, **Williams N**, Johnson P, Lee MG “Left colon and liver haemangiomas: report of a case” *Canadian J Surgery* 2009;52: E195-E196.

- * Plummer JM, Bonadie KO, **Williams N**, Leake PA, Mitchell DIG. “Duodenal fibrosarcoma mimicking Franz tumour complicated by post-resection chylous ascites: A case report.” *WTMJ*, 2010;59:84-7.
- * Powell M, Wheatley AO, Omoruyi F, Asemoto HN, **Williams NP**, and Tennant Paula. “Comparative effects of dietary administered transgenic and conventional papaya on selected intestinal parameters in rat models.” *Transgenic Res*, 2010;19:511-518.
- * Thame K, James T, **Williams N**, Smikle M and Lee M. Helicobacter pylori infection in children undergoing upper endoscopy in Jamaica. *The Internet Journal of Gastroenterology*, 2010; 9:2.

Refereed (Peer-Reviewed) Journal Abstracts

- * **Bishop KL**, Dupuis C, Miller-Nanton P, Clarke K, Bolt CS, Chin See CK. “Perinatal Autopsy Rates at University Hospital of the West Indies.” *WTMJ* 2009;58 (Suppl 4): 24.
- * Brown C, McFarlane-Anderson N, Lindo L, **Bishop K**, Dasgupta T. “The effects of s-nitroso-n-acetylpenicillamine and s-nitrosoglutathione on blood pressure, urinary protein concentration and pup weight in pregnant rats.” *WTMJ* 2009; 58 (Suppl 4): 42.
- * Green CO, Wheatley AO, Dilworth LL, **McGrowder DA**, **Hanchard B**, **Gibson TN**, Asemota HN. “Histopathological changes in organs of diet-induced hypercholesterolaemic rats fed ortanique peel polymethoxylated flavones.” *WTMJ*, 2009; 58 (Suppl. 45): 37.
- * **Chin SN**, Boyne MS, **McGrowder D**, **Gibson TN**, McKenzie CA. “The positive value of urinary VMA testing in the diagnosis of pheochromocytoma at the University Hospital of the West Indies.” *WTMJ*, 2009; 58 (Suppl. 45): 24.

- * Morrison B, **Coard K**, Gordon-Strachan G, Miller R, Aiken W, Mayhew R. “Radical prostatectomy outcomes at the University Hospital of the West Indies: 2000-2007.” *WTMJ*, 58 (Suppl 4) 47: 2009.
- * Johnson N, **Bishop K**, Trotman H, Reid M. “Congenital Abnormalities at a Tertiary Centre in Jamaica - An 18 month Maternal-Fetal Medicine Experience” *Prenatal Diagnosis*. 2010; Volume 30; Issue S1-S115).
- * Hutton-Rose N, Blythe C, Ogbano C, **McGrowder D**. “The prevalence of other sexually transmitted infections in confirmed HIV cases at a referral clinic in Jamaica.” *WTMJ* 2010; 59 (Suppl. 2.): 26.
- * Hyde C, Gossell-Williams M, Hunter T, Simms-Stewart D, **McGrowder D**, Fletcher H, **Choo-Kang E**. “Pumpkin seed oil supplementation improves HDL and LDL cholesterol in post-menopausal women: A random double-blind pilot study.” *The FASEB Journal* 2010; 24: 588.6.
- * Gordon L, Morrison E, **McGrowder D**, Garwood D, Terry Pena Fraser Y. “Effect of exercise therapy on lipid profile and oxidative stress in patients with type 2 diabetes.” *Canadian Journal of Diabetes* 2010; D-0777:236.
- * Bekowitz JL, Janice E, Monic J, **Wharfe G**, Waldman T. “Phase II trial Dacalizumab in HTLV I associated ATL.” *JCO* 28:75 (2010). Supplement Abstract 8043.

PUBLIC SERVICE

Dr K. Bishop

- Cytopathology Consultant, Jamaica Cancer Society
- President, Jamaican Association of Clinical Pathologists

Dr D. Brady-West

- Assistant Editor, *West Indian Medical Journal*

Professor G. Char

- Cytopathology Consultant, Jamaica Cancer Society

Dr Sheray Chin

- Reviewer, *Gynecologic Oncology & West Indian Medical Journal*

Professor K. Coard

- Council Member, Caribbean Cardiac Society.
- Chairman, Research Grants Awards Committee of the Caribbean Cardiac Society.
- Mentor, UWI Mentorship Programme

Professor C. Escoffery

- Cytopathology Consultant, Jamaica Cancer Society
- Reviewer, *West Indian Medical Journal*

Dr. T. Gibson

- Cytopathology Consultant, Jamaica Cancer Society

Professor B. Hanchard

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

Dr. J. Jaggon

- Cytopathology Consultant, Jamaica Cancer Society
- Secretary/Treasurer, Jamaican Association of Clinical Pathologists
- Assistant secretary, 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

- Member, Lupus Foundation of Jamaica
- Member, Editorial Board, International Archives of Medical Sciences
- Editor, Chemical Pathology, *International Journal of Medicine and Medical Sciences*
- Board Member, Jamaica National Agency for Accreditation Council (JANAAC)

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. 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
- Mentor, UWI Mentorship Programme

HONOURS & AWARDS

Professor K Coard received the **Anthony N Sabga (ANSA) Caribbean Award for Excellence 2010**, in Science and Technology.

Dr Sheray Chin received the Association of Consultant Physicians of Jamaica **Prize for Best Presentation**, Faculty of Medical Sciences, University of the West Indies, 18th Annual Research Conference, UWI, Mona, November 2009.