DEPARTMENT OF BASIC MEDICAL SCIENCES

Prof. Wayne McLaughlin, BSc Waterloo, PhD UWI
– Head of Department

WORK OF THE DEPARTMENT

During the academic year, the department made progress in implementing some of the strategic initiatives in its 2007-2012 Strategic Plan and also some of the recommendations from the five-year review for the Basic Medical Sciences. The major achievements included:

- The review of the BB Med Sci programme
- Increased student intake in the BB Med Sci and Physical Therapy programmes
- The strengthening of academic supervision and overall programme quality in research training at the MPhil and PhD levels, including weekly departmental graduate seminars
- Increased throughput of MPhil and PhD students
- The introduction of taught master’s programmes in Forensic Science, Applied Pharmacology and Physical Therapy
- The introduction of a Diabetes Education Curriculum for Health Care Professionals
- The improvement of the IT infrastructure in the Physiology Lecture theatre and the Pre-Clinical Lecture Theatre for teaching
- The acquisition of teaching and research equipment
- The appointment of new academic staff
The development of core research centres to support specific research areas e.g. genomics, pharmacology and toxicology

Investment in world-class research and teaching infrastructure

Stimulate translational research and commercialisation

In 2011/12 three hundred and twenty-seven (327) students were registered in the MBBS/DDS programmes, 47 in the BB Med Sci programme and 70 in the Physical Therapy programme. Two hundred and eighty-eight (288) students were enrolled in the introductory Biochemistry course. Job shadowing was introduced for final year students in the BB Med Sci programme. Students visited Roche Pharmaceuticals, CARIMED, The Ministry of Health – Pharmaceutical Division, the Fair Trading Commission, IPCA Pharmaceuticals, Lascelles, Health 2000, and the National Health Fund.

Students’ assessment of teaching was good as the academic staff continues to be highly rated by students. Members of the academic staff and their postgraduate students participated in several international conferences and were also successful in attracting research funds of approximately US$265,060. The research output per academic staff declined, approximately 1.0 original paper published per staff in peer-reviewed journals.

Professor Helen Asemota completed her secondment at Shaw University, USA where she served as the Principal Investigator for the “Shaw in Jamaica MoN Prostate Cancer Research Project”. Dr. Michelle Hamilton continued her secondment to the Ministry of Health. Several new academic staff members were appointed. These include Dr. Pierre Louboutin, Senior Lecturer in Anatomy, Dr. Rustam Aminov, Senior Lecturer in Microbiology, Dr. Mohammad Ali, Lecturer in Molecular Biology and Dr. Jacqueline Corness, Senior Lecturer in Physiology.

The department hosted several workshops during the last academic year. The Departments of Basic Medical Sciences and Surgery jointly hosted the 2nd Anti-doping in Sports workshop; The Section of Physical Therapy hosted a workshop on Injury Prevent at Work. Some of the participants were from
Grace Kennedy, Guardian Life, The Shipping Association of Jamaica and Pharmacology Section hosted a *Drug Clinical Trial* workshop.

The Department of Basic Medical Sciences in continuing to build its core forensic and bio-analytical research and service facilities received approval to establish an independent commercial Forensic Toxicology Unit under the name “CARIBBEAN TOXICOLOGY” [CARITOX]. CARITOX will provide forensic toxicology and consultancy services to the legal profession involved in both civil and criminal cases as well as clinical and non-clinical toxicology analytical services. CARITOX along with CARIGEN will provide a wide range of forensic services to clients and support teaching at the graduate and undergraduate levels in forensic science and research within the University.

The Department over this past year mourned the loss of Professor Emeritus Manley West. A Pharmacology Post graduate Prize was named in his honour. Professor West will be remembered for his work on *Cannabis sativa* and the development of two drugs, Cannasol® used to treat glaucoma and Asmasol® used to treat asthma, coughs and colds. It also reduces vomiting and nausea in patients with cancer and AIDS.

The department continued to make preparations to relocate to the New BMS Complex (The Faculty of Medical Sciences Teaching and Research Complex).

**STAFF AWARDS AND PROMOTIONS**

Miss Garsha McCalla received the prize for Best Oral Presentation and Mrs. Annice Webber-Waugh received the prize for Best Poster at the Faculty of Medical Sciences 20th Annual Research Conference. Stacey Stephenson received the American Society for Microbiology (ASM) prize for best poster, ASM Annual Meeting.

**STAFF DEVELOPMENT**

Dr. Jacqueline Corness completed a *MA in Education*, from the University of Hertfordshire, UK. Dr. C. R. Nwokocha acquired expertise in patch clamp electrophysiological techniques and analysis of
cell membrane currents of smooth muscle cells of small arteries of rodents as well as techniques involved in single cell isolation from resistance arteries (of rats), pipette preparation, whole-cell and isolated patch recording configurations and data analysis. The training was carried out with The Smooth Muscle Research Group, Department of Physiology & Pharmacology and Hotchkiss Brain Institute and Libin Cardiovascular Institute, Faculty of Medicine at the University of Calgary. Dr. Arkene Levy through collaborative research with NOVA South Eastern University – Rumbaugh Goodwin Institute for Cancer Research, standardized western blot protocols for the detection of FAK expression in ovarian cancer samples from Jamaican women. Miss Garsha McCalla, Dr. C. Gordon, Dr. S. Martin, Mrs. Audrey Jacobs and Ms. S. Williams successfully completed the Postgraduate Certificate in University Teaching and Learning Programme at UWI. Mr. Everton Thomas received training at Michigan State University, Michigan, USA in Interactive Organ System Pharmacology (IOSP). Dr. Lisa Lindo was appointed as a Non-Professorial Representative to Academic Board for 2012/2013 Academic year.

PAPERS PRESENTED


Faculty of Medical Sciences 20th Annual Research Conference, Kingston, Jamaica, November 9-11, 2011.


**PUBLICATIONS**

**Books and Monographs**


Refereed Journal

\[ WIMJ = \text{West Indian Medical Journal} \]


* Irving, R., Wright-Pascoe R., Mills, J., Mullings, A., Choo-Kang, E., McLaughlin, W., McGrowder, D. Mosaic pancreas or type 3 diabetes: how do we define it?


Abstracts in Peer Reviewed Journal


**INCOME GENERATION/FUNDING**

**Research Grants**

**Dr. Lauriann Young-Martin**

- New Initiative Grant of $1,488,500.00 to carry out an investigation on critical thinking in the Faculty of Medical Sciences, Mona.

**Dr. Jacqueline Corness**

- New Initiative Grant of $1,500,000 to conduct research on the histological characteristics of the habenular complex and its related circuitry.

**Professor Wayne McLaughlin**

- J$1,700,000 from the Coconut Industry Board for supporting Research Fellow Dr. Natala Burnett.
Dr. C. R. Nwokocha

- Received the following donations of research equipment from Dr. Cole’ Research Lab, University of Calgary:
  - Narishige P83Japan Patch Pipette Puller valued at US$3000
  - Manning Warner Fine Science Tools Micromanipulator (DE3K) valued at US$8000
  - Fine micro dissecting kits valued at US$1000

Dr. Arkene Levy

- US$5000.00 from Nova South Eastern University for collaborative work on the ‘Expression of FAK in Jamaican women with ovarian cancer and correlation with disease metastasis’.

- Campus Committee for Research and Publication and Graduate Award for Michelle Morris: “Serotonin 5-HT2c receptor of the rat detrusor muscle: association with atypical antipsychotic-induced weight gain and glucose disequilibrium” US$1,778.90.

- Pharmacology received J$33,000 and EU$5 to set up an award in the name of Professor Manley West from his family.

Dr. Paul Brown

- A comparative molecular analysis of the virulence determinants and antibiotic susceptibility profiles of methicillin-resistant Staphylococcus aureus (MRSA) in Jamaica. Campus Research and Publication Fund, UWI, Mona; PI (Awarded to Terissa Thompson) US$2060

- Extracellular proteases and their regulation in Leptospira spp. Campus Research and Publication Fund, UWI, Mona; PI (Awarded to Varina Keeling) US$2444

Prof. Dalip Ragoobirsingh

- Western Regional Health Authority, St. James Public Health Services, Montego Bay, St. James. Amount: ~ J$40,000.00 – Partially funded project entitled “Health Workers’ Communi-
cation and Patient Health Outcomes: A Focus on Persons with Diabetes in St. James”.

PUBLIC SERVICE

Professor Wayne McLaughlin
  – Board Member, Coconut Industry Board
  – Board Member, Seprod Limited

Dr. Lauriann Young-Martin
  – Member, UWI Valedictorian Selection Committee
  – Lector and Member of the Liturgical Committee, Holy Cross Roman Catholic Church
  – Member, Fund-raising Committee of Holy Cross Church

Dr. C. R. Nwokocha
  – Member, Organizing Committee of the FMSARC
  – Member, Organizing Committee of the Principal’s Research Day

Professor Omkar Parshad
  – Director, Indian Cultural Society in Jamaica.
  – Chairman, Sri Sathya Sai Baba Organization in Jamaica.
  – Member, Lions Club of St. Andrew, Jamaica.

Dr. Paul Brown
  – Ambassador to Jamaica, American Society for Microbiology (ASM)
  – Council Member, International Society for Infectious Diseases.

Dr. Kerith Golden
  – Vice President, Stock Farm Road Citizens Association, Golden Spring, St Andrew.
  – Member of the Board (Vice President) for Jamaica Association for Children With Learning Disabilities.
Dr. Rachael Irving
   – Committee Member, National Sports Museum

UNDERGRADUATE STUDENTS REGISTRATION

BB Med Sci.
   Year 1 = 47
   Year 2 = 60
   Year 3 = 31

MB BS
   Year 1 = 327
   Year 2 = 357
   Year 3 = 267

Physical Therapy
   Year 1 = 63
   Year 2 = 50
   Year 3 = 51

FPAS (Biochemistry)
   Year 1 = 288
   Year 2 = 78
   Year 3 = 57

FIRST CLASS HONOURS - BB MED SCI

Pharmacology
Indira Boyd, Peta-Gaye Thomas, Simone Stewart, Keisha Sewell, Nikki-Juenelle Wilson, Sheneika Bennett, Sasha-Gaye Richards, Sovia Brown, Alicia Raymond.

Physiology
Daniel Lester
POST GRADUATE STUDENTS REGISTRATION

**Taught Masters**
- MSc Forensic Science – 27
- MSc Applied Pharmacology – 4

**Research**
- MPhil – 5

**POSTGRADUATE DEGREES AWARDED**
- Tricishanna Henry - MPhil Pharmacology
- Lorna Calder - MPhil Pharmacology
- Miss Garsha McCalla - MPhil Physiology
- Mrs. Annice Webber-Waugh - MPhil Physiology
- Simone Badal McCreath - PhD Biochemistry
- Mrs. Shirley Budall - PhD Biochemistry
- Kathleen Lobban - PhD Biochemistry
- Donna Wynter-Adams - PhD Pharmacology
- Ms. Jacqueline Vigilance - PhD Physiology

**VISITORS TO THE DEPARTMENT**

Mr. V. V. Dayanandand, Country Manager, Ipca Laboratories. Guest presentation to final year BBMedSc Pharmacology students on the Role of the Medical Representative.

Dr. Priscilla Johnson, Assistant Director for Clinical/ Administration Affair. RCMI Center of Excellence for Clinical and Translational Research. Morehouse School of Medicine. Conducted a two day Drug Clinical Trials training workshop for MSc Applied Pharmacology students.

Dr. Paula Royster, CEO and Founder, The Center for African American Genealogical Research, Inc. (CAAGRI) visited. She is a Fulbright Fellow and has interest in African Ancestry and DNA genealogy.