

# FACULTY OF MEDICAL SCIENCES

## Mona

Year ending July 31, 2014



PROFESSOR HORACE FLETCHER

MB, BS, DM (O&G), FRCOG, FACOG

Dean

## – *Dean's Overview* –

Academic Year 2013/2014 was good overall despite continued challenges. The Faculty maintained a steady intake of the MBBS students and continued to improve on its infrastructural developments. Despite the increase in the clinical sites, additional locations were required to assist primarily with the teaching of third year clinical students. Likewise, there was an increase in the number of associate lecturers to assist with the clinical teaching. Greater effort was placed on equipping the various lecture theatres at the Mona Campus and the laboratories at the Western Jamaica Campus with multimedia capabilities in order to enhance the teaching and learning experience of the MBBS students. However, there continue to be challenges with the E-Book initiative.

The accreditation received from the Caribbean Accreditation Authority for Medicine and other Health Professionals (CAAM-HP) for the MBBS programme in May 2012 was reduced to four years instead of five due to administrative errors. Corrective measures have since been employed to ensure that there is no recurrence. Due to the increase in the number of students and the restrictions of the International Monetary Fund, the Ministry of Health, Jamaica, and the UHWI had challenges identifying internship places for the MBBS graduates; approximately 154 spaces were approved.

The 25-station Basic Simulation Laboratory and the 8-station Advanced Simulation Laboratory for the Doctor of Dental Surgery (DDS) programme were opened in March-April 2014. The UWI-Mona Dental Polyclinic (UMDP) was opened in June 2014 after the completion of Phase 1, which included 24 dental cubicles (4 for surgical procedures), sterilization area, x-ray room, small dental laboratory, and consultation room. Phase 2 will consist of the other infrastructural and operationalized components. The remaining 11 chairs would be installed soon. Arrangements continue to be made to ensure adequate staffing is in place for the various dental services. An accrediting team from the CAAM-HP visited the Faculty in May 2014, and in July 2014 the programme received the initial accreditation approval from the CAAM-HP for a period of two years, 2014–2016. While there existed some challenges that would be addressed, the review team was particularly impressed with the physical infrastructure/equipment. Clinical training for the final year students began on June 1, 2014.

The School of Medical Radiation Technology (SMRT) relocated to the Faculty of Medical Sciences Teaching and Research Complex (FMS TRC) in November 2013. Sadly, the then Director, Miss Joan Shaw, passed suddenly on May 22, 2014. She was replaced by Miss Carol Townsend who was her deputy. The Faculty has started the process of establishing a Clinical Trials Centre at the FMS TRC to boost its research capacity. His Royal Highness the Prince Edward, Earl of Wessex, KG, GCVO, opened the Division of Sports Medicine's Clinic on March 3, 2014. The Physical Medicine and Rehabilitation (PM&R) Unit continues to host its Annual Spasticity Workshop, in collaboration with international partners, through which approximately 150 persons have benefitted from free health care.

## **STUDENT ENROLLMENT AND ACCESS**

Table 1 below represents undergraduate enrolment for the academic year 2013/2014:

**Table 1:** Student Enrolment in the Faculty of Medical Sciences, 2013/2014

| Programme | Majors and Minors                    | No. of Students<br>2012/2013 | No. of Students<br>2013/2014 |
|-----------|--------------------------------------|------------------------------|------------------------------|
| BBMedSci  | Anatomy                              | 19                           | 23                           |
|           | Biochemistry                         | –                            | 5                            |
|           | Pharmacology                         | 126                          | 145                          |
|           | Physiology                           | 12                           | 6                            |
|           | <b>Subtotal</b>                      | <b>157</b>                   | <b>179</b>                   |
|           |                                      |                              |                              |
| BSc       | Nursing (Post RN)<br>Online Delivery | 207                          | 166                          |
|           | Nursing (Generic)                    | 860                          | 892                          |
|           | Physical Therapy                     | 198                          | 193                          |
|           | Diagnostic Imaging                   | 84                           | 87                           |
|           | <b>Subtotal</b>                      | <b>1,349</b>                 | <b>1,338</b>                 |
|           |                                      |                              |                              |
| DDS       | Doctor of Dental<br>Surgeon          | 44                           | 64                           |
|           |                                      |                              |                              |
| MBBS      | Bachelor of<br>Medicine & Surgery    | 1,620                        | 1,629                        |
|           | <b>Total</b>                         | <b>3,170</b>                 | <b>3,210</b>                 |

## STUDENT ACHIEVEMENTS

### Undergraduate Programme 2013/2014

#### MBBS:

- Dean's List: 69 students
- Honour Society: 9 students
- Outstanding Graduands: 2 students

## DDS

- Dean's List: 7 students
- Honour Society: 4 students

## Nursing:

- Dean's List: 2 students
- Honour Society: 2 students

## Physical Therapy:

- Dean's List: 7 student
- Honour Society: 3 student
- Outstanding Graduands: 2 students

## BBMedSci

- Dean's List: 10 students
- Honour Society: 3 students
- Outstanding Graduands: 2 students

## Diagnostic Imaging

- Dean's List: 16 students
- Honour Society: 4 students
- Outstanding Graduands: 2 students

A total of 597 undergraduate students graduated from the Faculty in Academic Year 2013/2014:

## MBBS213

|                                      |     |
|--------------------------------------|-----|
| BSc Nursing (generic)                | 223 |
| BSc Nursing (Post RN)                | 61  |
| BSc Physical Therapy                 | 42  |
| BBMedSci                             | 44  |
| BSc Diagnostic Imaging (Radiography) | 14  |

**MBBS Examination Results**

The MBBS Examination for academic year 2013/2014

|                                    | Pass | Honours | Distinction | Fail/FA | Total |
|------------------------------------|------|---------|-------------|---------|-------|
| Medicine (MDSC553)                 | 169  | 13      | –           | 13      | 195   |
| Obstetrics & Gynaecology (MDSC554) | 165  | 5       | –           | 9       | 179   |
| Surgery (MDSC555)                  | 170  | 3       | –           | 11      | 184   |
| Overall Total (by # of students)   | 175  | 14      | –           | 25      | 200   |

**Prizes/Medals**

The following students were awarded prizes in the final MBBS examinations held in May/June 2014:

**Subject Medals**

|                            |   |                              |
|----------------------------|---|------------------------------|
| Pathology/Microbiology     | – | Auvarhenne Howell            |
| Obstetrics and Gynaecology | – | Gayan Smith/<br>Tariq Parker |
| Medicine                   | – | Tariq Parker                 |
| Surgery                    | – | Tariq Parker                 |

**Prizes/Bursaries**

|  |   |              |
|--|---|--------------|
| Professor Owen Morgan Prize in Medicine and Therapeutics | – | Tariq Parker |
| Allenbury Prize in Medicine                              | – | Tariq Parker |

|  |   |                   |
|--|---|-------------------|
| Dr. the Hon. John Hall Book Prize  | – | Kristina Acevedo  |
|  | – | Shion Betty       |
|  | – | Najuma Comissiong |
|  | – | Latoya Gayle      |
|  | – | Giovanni Henry    |
|  | – | Jason Lofters     |
|  | – | Andre McDaniel    |
|  | – | Abigail McDonald  |
|  | – | Gaynelle Menzies  |
|  | – | Tariq Parker      |
|  | – | Gayan Smith       |
|  | – | Alexander Wright  |
|  | – | Toshikah Wheatley |
| Astley Karl Bambury Prize in Medicine  | – | Tariq Parker      |
| Medical Association of Jamaican<br>Insurance Fund Prize in Obstetrics<br>and Gynaecology | – | Tariq Parker      |
|  | – | Gayan Smith       |
| Professor Louis Grant Book Prize   | – | Jadine Knight     |
| Professor S. Brooks Memorial Prize   | – | Auvarhenne Howell |
| General Surgery Prize  | – | Tariq Parker      |
| Sir Harry Annamunthodo Prize   | – | Tariq Parker      |
| Dr. Aubrey McFarlane Bursary   | – | Tariq Parker      |
| Paediatric Prize in Medicine &<br>Therapeutics   | – | Toshikah Wheatley |
| <b>BSc Physical Therapy Students, 2012/13</b>  |   |                   |
| Best Performance in Anatomy  | – | Carol-Ann Wooding |
|  | – | Andre Whyte       |

|  |   |                   |
|--|---|-------------------|
| Best Performance in Physiology                   | – | Carol-Ann Wooding |
| Best Performance in Rehabilitation 1             | – | Claycia Morris    |
| Best Performance in Rehabilitation 2             | – | Andre Whyte       |
| Best Performance in Rehabilitation 3             | – | Carol-Ann Wooding |
| Outstanding Performance in<br>Clinical Placement | – | Jessica Felix     |
| Best Performance in Medical Science 1            | – | Briana Blackwood  |
| Best Performance in Medical Science 2            | – | Jessica Felix     |
| Best Performance in Medical Science 3            | – | Carol-Ann Wooding |

## **STAFF PROMOTIONS**

### **Professors**

Dr. Marshall Tulloch-Reid (Professor of Epidemiology and Endocrinology) and Dr. Jennifer Knight Madden (Professor of Paediatric Pulmonology and Clinical Research) were elevated to the rank of professor.

### **Honorary Professorship**

Professors Ormond Panton and Arthur Burnett were appointed Honorary Professor for three years effective July 1, 2014, on attachment to the Department of Surgery, Radiology, Anaesthesia and Intensive Care.

## **CONDOLENCES**

The Faculty mourned the passing of the following members of staff: the late Dr. Sujathamma Yeluru-Gandretti, former Lecturer in the Department of Basic Medical Sciences (Anatomy) on April 22, 2014; and the late Joan Shaw former Director of the SMRT on May 22, 2014.

## **RESEARCH**

The Faculty is committed to increase the number of research per capita



over the coming years. Staff members have been encouraged to produce quality research with wide collaboration which can be accepted for publication in high impact journals, attract meaningful grants and enhance the reputation of the UWI. The most recent initiative of the Faculty was the introduction of the FMS Publisher's Club that is geared primarily to provide mentorship to staff and students to enable them to improve their academic writing skills. It is expected that through this medium the Faculty will realise an increase in its research output, possibly through a rigorous conversion rate of abstracts/thesis/projects to manuscripts. Students are also being encouraged to produce research projects that are publishable. Additionally, the Faculty continues to support academic development of staff through the FMS/TMRI Research Fellowship, the UHWI/UWI Ethics Committee and hosting of workshops/seminars. The DDS programme provided leadership that resulted in the formation of the Caribbean Branch of the International Association of Dental Research (IADR) for which the first president is a member of the programme.

## RESEARCH AWARDS

At the Principal's Annual Awards Ceremony held in February 2014, members of staff received awards for their outstanding research work as follows:

### The Best Research Publications

- "Reducing Child Conduct Problems and Promoting Social Skills in a Middle-Income Country: Cluster Randomised Controlled Trial." Baker-Henningham H, Scott S, Jones K, Walker S. *Br J Psychiatry* 2012; 201:101-8. doi: 10.1192/bjp.bp.111.096834.
- "The Effect of Aerobic Exercise (Walking) Training on Functional Status and Health-Related Quality of Life in Chronic Stroke Survivors." Gordon CD, Wilks R, McCaw-Binns A. *Stroke* 2013; 44, 1179–1181. doi:10.1161/STROKEAHA.111.000642.
- "A Trial Comparing the Use of Rectal Misoprostol Plus Perivascular

Vasopressin with Perivascular Vasopressin Alone to Decrease Myometrial Bleeding at the Time of Abdominal Myomectomy.” Frederick S, Frederick J, Fletcher H, Reid M, Hardie M, Gardner W. *Fertil Steril* 2013; 100(4):1044-9. doi 10.1016/j.fertnstert.20136.022.

- “Pathological Outcome and Biochemical Recurrence-free Survival Following Radical Prostatectomy in African-American, Afro Caribbean (Jamaican) and Caucasian Men: An International Comparison.” Ritch C, Morrison B, Hrubby G, Coard K, Mayhew R, Aiken W, Benson M, McKiernan J, *British Journal of Urology* 2012; 111(4):186–190. doi:101111/j.1464-410X.2012.11540.x.

**Table 3:** Publications per Department

| Department  | Publications<br>2013/2014 | Conference<br>Presentations<br>2013/2014 | Books (b)/<br>Book Chapter (bc)<br>2013/2014 |
|---|---------------------------|--|--|
| UWI School of Nursing                               | 7                         | 6  | –  |
| Basic Medical Sciences                              | 32                        | 36                                       | 4(b); 4(bc)                                  |
| Community Health &<br>Psychiatry                    | 34                        | 41                                       | 2(b); 4(bc)                                  |
| Medicine  | 6                         | 18                                       | –  |
| Obstetrics & Gynaecology                            | 8                         | 7  | 1 (b)<br>3 (bc)                              |
| Child & Adolescent Health                           | 9                         | 14                                       | 1(bc)  |
| Pathology   | 17                        | 14                                       | –  |
| Microbiology  | 11                        | 13                                       | –  |
| Surgery, Radiology,<br>Anaesthesia & Intensive Care | 29                        | 48                                       | –  |
| TMRU/Sickle Cell Unit                               | 46                        | 45                                       | 1(bc)  |
| Units/Sections under the<br>Dean’s Office           | 2                         | 12                                       | –  |
| <b>Total</b>  | <b>201</b>                | <b>214</b>                               | <b>9(b)/11(bc)</b>                           |

### The Most Outstanding Research Activity

- **The Yam/Biotechnology Group:** Professor Helen N. Asemota, Dr. Curtis O. Green, Dr. Andrew Wheatley, Dr. Lowell Dilworth, Dr. Donovan McGrowder, Dr. Dewayne Stennett, Mr. Michael Gardner, Mr. Ryan Francis, Dr. Denise Bailey, for producing seven articles:

“Bioavailability of Essential Minerals from Staples Commonly Consumed in the Tropics” | “Modulation of the Antioxidant Status of the Hearts and Brains of Genetically Modified Hypercholesterolemic Mice Overproducing HDL Cholesterol following Acute Bitter Yam Supplementation” | “Effects of Dioscorea Polygonoides (Jamaican Bitter Yam) Supplementation in Normocholesterolemic and genetically Modified Hypercholesterolemic Mice Species” | “Effects of Acetylation on the Micromeritics of Yam (Dioscorea sp.) Starch Powder for Pharmaceutical Application” | “Intestinal Morphology Assessments of rats Fed Phytic Acid Extract from Sweet Potato (*Ipomea batatas*) and IP6” | “Citrus Peel Polymethoxylated Flavones Extract Modulates Liver and Heart Function Parameters in Diet Induced Hypercholesterolemic Rats” | “Modulation of Antioxidant Enzymes Activities and Lipid Peroxidation Products in Diet-induced Hypercholesterolemic Rats Fed Organic Peel PMFs Extract”.
- **Professor Marvin Reid,** Tropical Medicine Research Institute, for producing 13 articles:

“Determining Glomerular Filtration Rate in Homozygous Sickle Cell Disease: Utility of Serum Creatinine Based Estimating Equations” | “Splenic Enlargement in Adults with Homozygous Sickle Cell Disease: the Jamaica Experience” | “Blood Viscosity and the Expression of Inflammatory and Adhesion Markers in Homozygous Sickle Cell Disease Subjects with Chronic Leg Ulcer” | “The Effect of Antenatal Factors and Postnatal Growth on Serum Adiponectin Levels in Children” | “Acute Pyelonephritis in Pregnancy: A Retrospective Descriptive Hospital Based Study” | “*Morinda citrifolia* (Noni) as Anti-Inflammatory Treatment in Women with Primary Dysmenorrhoea: A Randomized Double-Blind Placebo-Controlled Trial” | “A Trial Comparing the Use of Rectal Misoprostol Plus

Perivascular at the time of Abdominal Myomectomy” | “Locus of Control, Depression and Quality of Life Among Persons with Sickle Cell Disease in Jamaica” | “Mortality, Asthma, Smoking and Acute Chest Syndrome in Young Adults with Sickle Cell Disease” | “Relationship Between Acute Chest Syndrome and the Sympathovagal Balance in Adults with Hemoglobin SS Disease; A Case Control Study” | “A Phase 1/2 Trial of HQK-1001, an Oral Fetal Globin Inducer in Sickle Cell Disease” | “A Dose-escalation Phase IIa Study of 2, 2-Dimethylbutyrate (HQK-1001), an Oral Fetal Globin Inducer in Sickle Cell Disease” | “Testosterone Replacement Therapy Does not Promote Priapism in Hypogonadal Men in Sickle Cell Disease: 12 –Month Safety Report”.

#### **The Research Project Attracting the Most Research Funds**

- “Elimination of Vertical (Mother-to-child) Transmission of HIV/AIDS and Congenital Syphilis in Jamaica.”

**Awardees:** Professors Celia Christie-Samuels and Russell Pierre (Department of Child and Adolescent Health), Dr. Orville Morgan (Department of Obstetrics and Gynaecology) and Dr. Kevin Harvey (Department of Medicine) and Collaborators.

#### **The Research Project with the Greatest Business/Economic/ Development Impact**

- “Novel Treatments of Hyperglycemia and Hypertension, High Blood Sugar Levels and High Blood Pressure in Rat Models”

**Awardees:** Dr. Ruby Alexander-Lindo and Dr. Denise Daley-Beckford (Department of Basic Medical Sciences) and Professors Trevor Yee and Paul Reese (Department of Chemistry).

#### **The Research Project with the Greatest Multidisciplinary/Cross Faculty Collaboration**

- “Research on Understanding Prostate Cancer in Jamaica: Aetiology, Outcomes and Prevention”.

**Awardees:** Dr. Maria Jackson (Department of Community Health and Psychiatry); Dr. Marshall Tulloch-Reid (Tropical Metabolism Research Institute); Dr. William Aiken and Dr. Trevor Tulloch (Department of Surgery, Radiology, Anaesthesia & Intensive Care); Professor Franklyn Bennett and Professor Kathleen Coard (Department of Pathology); Dr. Norma McFarlane-Anderson (Department of Basic Medical Sciences: Radiology, Dr. Robert Wan (Kingston Public Hospital); and Collaborators.

### RESEARCH GRANTS

The Faculty has remained successful in attracting research grants from internal and external sources. Seven members of staff received research from the Principal's Research Award and one was awarded a Fellowship. Grant funding was received for the period in excess of JA\$172,982,286 from local and international donors to conduct research social and health-related issues. Details of the grants received will appear in the individual departmental reports.

### GRADUATE STUDIES

The Faculty continued to develop programmes/courses to meet the needs of the Region. The following programmes received approval from the relevant Committees/Boards during the year.

- MBA-MPH in Health Management
- MPH Gerontology
- Postgraduate Diploma in Gerontology
- DM Plastic Surgery
- Research and Bioethics Course for DM Students
- MSc Speech and Language Pathology

**Registered Graduate Students (2013–2014)**

| <b>Programmes</b>   | <b>No. of Students<br/>2012/2013</b> | <b>No. of Students<br/>2013/2014</b> |
|---------------------|--------------------------------------|--------------------------------------|
| Specially Admitted  | –                                    | 5                                    |
| Dip Family Medicine | 16                                   | 10                                   |
| DM                  | 318                                  | 403                                  |
| DrPH                | 22                                   | 27                                   |
| MPH                 | 42                                   | 35                                   |
| Taught Masters      | 297                                  | 205                                  |
| MPhil               | 58                                   | 56                                   |
| PhD                 | 35                                   | 30                                   |
| Clinical Fellowship | –                                    | 1                                    |
| <b>Total</b>        | <b>788</b>                           | <b>772</b>                           |

**Completed Graduate Students (2013–2014)**

| <b>Programmes</b>   | <b>No. of Students<br/>2012/2013</b> | <b>No. of Students<br/>2013/2014</b> |
|---------------------|--------------------------------------|--------------------------------------|
| Dip Family Medicine | 6                                    | 3                                    |
| DM                  | 37                                   | 75                                   |
| DrPH                | –                                    | 1                                    |
| MPH                 | 20                                   | 11                                   |
| Taught Masters      | 85                                   | 77                                   |
| MPhil               | 4                                    | 5                                    |
| PhD                 | 7                                    | 9                                    |
| Clinical Fellowship | –                                    | –                                    |
| <b>Total</b>        | <b>159</b>                           | <b>181</b>                           |

## **INCOME GENERATION AND BUDGETARY CONSIDERATIONS**

The UWI signed a contract on June 30, 2014 valued at Euro \$1.1m with the European Union and the Government of Jamaica (through the Planning Institute of Jamaica) for the Faculty to provide graduate medical and nursing training for the Programme of Reduction of Maternal and Child Mortality (PROMAC). This training consultancy will support the staffing of High Dependency Units which will be established islandwide to provide emergency care for mothers and infants. Proceeds from this grant will assist in the purchase of equipment and infrastructural development.

Individual Departments have also been involved in various activities. CARIMENSA received donations of \$600,000 from private sector individuals. SMRT earned \$2,070,000 through its Distance Learning Ultrasound Programme.

## **CONCLUSION**

The Faculty has made great progress. The main challenges had to do with the large number of students and the associated increase in costs. Publications and research appear to be static and require the buy-in of all staff. Financial woes have also hampered our progress, with increased cost of teaching and learning and large number of students who struggled to pay fees on time.

The inability to pay our suppliers on time has resulted in many challenges thus hindering the completion of projects, reducing our ability to obtain lab reagents and to service equipment as needed. Hopefully, solutions can be found as we move forward to alleviate these challenges.