

The Faculties and School of Medical Sciences of The University of the West Indies at its Diamond Jubilee

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The Birth of The University of the West Indies

Before the Second World War, only Codrington College in Barbados provided higher education at degree level for Caribbean people. Codrington College was founded through the will of Colonel Christopher Codrington, who died in 1710. Although it was the intention of the benefactor that it should train physicians, it never achieved this goal. In 1829, the College became affiliated with Durham University in Britain, and until 1953 offered degrees in classics, the humanities and theology, training teachers and clergy for most of the Caribbean. But anyone seeking a medical education went outside of the region, to the United Kingdom, Canada or the United States of America.

A Royal Commission was set up in 1943 to address the desperate need for higher education in the colonies, and the West Indies Committee of that commission was appointed in 1944, under the chairmanship of Sir James Irvine, Vice-Chancellor of St Andrews University in Scotland. The composition of the committee included Sir Philip Sherlock, who was later to become Vice-Chancellor (1963–69) and Sir Hugh Springer, who became the first registrar and later Governor General of Barbados.

Because of the many health problems in the Caribbean (tuberculosis, yaws, tetanus, infant malnutrition, typhoid and diarrhoeal diseases especially) and the pressing need for doctors across the region, it was decided to establish a medical faculty as a priority. By September 1946, an affiliation with the University of London was established and Jamaica offered to be the host of the new University College of the West Indies. The site selected was the old Mona sugar estate, nestled in a valley between Long Mountain and the foothills of the Blue Mountains. Here, on the lands of the estate, were the many wooden buildings of the Gibraltar Camp, built to house British refugees from Gibraltar during World War II. The site was ideal, and the spacious wooden “huts”, chapel, theatre and other facilities provided ideal temporary accommodation while the main campus was being built.

More than 600 students applied to study medicine, and after a special entrance examination and interviews, 33 were selected as the first students to enter the new University College in 1948. This historic first class included many

outstanding individuals who have been great leaders in their field, both at home and abroad.

It included the late Professor Pamela Rodgers, gold medallist and internationally known neurologist, the late Professor Sir Kenneth Standard, named one of the PAHO Centenary Heroes of Public Health and Dr Owen Minott, Head of Accident and Emergency Medicine at the University Hospital of the West Indies for many years and leading Community Medicine physician. Professor David Picou, first Caribbean Director of the TMRU, was a graduate of the second ('55) class, while the Chancellor, Sir George Alleyne, was a graduate of the '57 class. The founding faculty left a lasting legacy, particularly Professor Eric Cruickshank (medicine) and Professor David Stewart (Obstetrics and Gynaecology (O & G)), while one of the first Senior Registrars, Sir Ken Stuart, went on to become Professor of Medicine and later to the post of Medical Adviser to the Commonwealth Secretariat.

The Medical Faculty at Mona was fortunate in having its own teaching hospital, the University Hospital of the West Indies, designed as both a teaching hospital and an acute tertiary care hospital. The curriculum was that of the University of London, and the Foundation professors were British, teaching the British five-year programme, with emphasis on the pathological basis of disease and the acquisition of sound clinical skills. With independence from the University of London in 1962, the curriculum gradually evolved to cater to the perceived Caribbean priorities, including more emphasis on public health and preventive medicine. Formal postgraduate training with the Doctorate of Medicine (DM), a four-year residency style programme, began in 1972.

The history of the medical faculties has been well told in considerable detail elsewhere, both with statistics (1) and photographs (2).

Expansion in the 60s

By the mid 1960s, the governments of the Caribbean were demanding a greater output of doctors, to counter the emigration of many graduates of The University of the West Indies. In fact in the Class of '69 (that of this author) 50% of the graduates proceeded to North America immediately on graduating, to intern and secure postgraduate residency places. Most of these graduates never returned.

In that era, most medical teaching took place in hospital wards and expansion beyond 50 students per class therefore led to a new paradigm – expansion beyond the walls of Mona and the shores of Jamaica to the Eastern

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Caribbean. By this time, there was a second University Campus at St Augustine in Trinidad and Tobago, opened in 1960, and a third at Cave Hill, Barbados, opened in 1963, with its permanent buildings completed in 1967. And so the Eastern Caribbean Medical Scheme was planned whereby students could go to the Port-of-Spain General Hospital or the new Queen Elizabeth Hospital (QEH) in Barbados for their final year of medical training.

Teaching began in Barbados and Trinidad and Tobago in 1967 with a pilot group of six students to each new site and in 1968 one quarter of the Class of '69 went to each site, while half remained at Mona. In 1974, it was arranged for students to transfer at the end of year 3, completing the last two years in the Eastern Caribbean.

Teaching at Cave Hill and QEH has therefore been in operation for 41 years, catering to 20–25 students/year, in the last two clinical years of training. It has produced some 800 doctors, some 50% of whom practice in Barbados and other Caribbean countries.

Expansion in the 80s and 90s

Meanwhile, the University at St Augustine invested in a completely new “mega” faculty – a Faculty of Medical Sciences, comprising Schools of Medicine, Veterinary Medicine, Dentistry, Pharmacy and Advanced Nursing Education. The Eric Williams Medical Sciences Complex at Mount Hope, East of Port-of-Spain, opened its doors in 1989, embracing an international admissions policy from the start. The Faculty developed a basic science programme modelled on the McMaster’s Problem Based Learning (PBL) approach, tempered by a still generous supply of lectures and supported by an excellent library.

Since 1989, therefore, students have entered at Mona or St Augustine and may transfer to Cave Hill, at the School of Clinical Medicine and Research (SCMR), for years 4 and 5, for clinical teaching at the Queen Elizabeth Hospital, under an agreement between the Government of Barbados and the University, establishing the hospital as a teaching hospital. Under this agreement, University faculty members are appointed Associate Consultants and provide clinical service while Hospital Consultants are appointed Associate Lecturers and share in the teaching.

Similar appointments are made at the Kingston Public Hospital and Bustamante Hospital for Children in Kingston, and at the Port of Spain General Hospital, the Eric Williams Medical Sciences Complex and the San Fernando General Hospital in Trinidad and Tobago, and more recently at the Princess Margaret Hospital in Nassau. Ten years ago, a similar clinical programme was developed in Nassau, Bahamas, as a satellite of the Faculty at St Augustine. This programme has now been established as the School of Clinical Medicine and Research, Nassau, with its own Dean. Meanwhile, postgraduate programmes in specialty training have been developed at all teaching sites, in response to government needs. While the University Hospital of the

West Indies has the largest number of postgraduate programmes, there are now 10 programmes at the QEH and a number at the Eric Williams Medical Sciences Complex. There are similar numbers (more than 50) of postgraduate students (residents) to undergraduate students at the QEH, in these 10 priority training programmes and much larger numbers at the Mona Campus. As a result of cross-campus collaboration, there is an expansion of postgraduate training in Family Medicine, with a full range of programmes at Cave Hill/QEH: an in-service Diploma (pioneered at the St Augustine Campus and now “going distance mode”), a Masters and a Doctorate (DM). Similarly, in Public Health, the Masters in Public Health (MPH), long established at the Mona Campus, begins this academic year at Cave Hill, and can lead to a Doctorate of Public Health while Cave Hill has established a Diploma in Public Health in response to government’s request and Mona leads with the new Doctorate in Public Health.

But with increasing operational costs and the high value of the Barbados dollar compared to other regional currencies, the SCMR, Cave Hill, was no longer cost effective; economic costs (US\$75 000 per student per annum) for such small numbers of 25 or less per class and only two classes, were more than twice those at the Mona Campus in Jamaica and more than three times those at St Augustine, Trinidad and Tobago. As a result, the School was no longer serving the needs of the Eastern Caribbean (OECS) to which it is committed and only Barbadian students are currently registered.

The Faculties at Mona and St Augustine have reported that they can only accept about one in five or less of qualified Caribbean applicants. Furthermore, there is also a huge demand from a large international student body which St Augustine has always catered to, assigning 30% of their places. Likewise Mona has also opened its doors internationally. Programmes at all campuses therefore need to expand, but particularly in Barbados, where there is spare capacity and the opportunity for dramatically reducing economic costs of training and thereby once again serving the countries of the OECS by producing doctors and specialists with training relevant to the region and the needs of the smaller countries. International admissions will also fulfill the University’s strategic plan of global reach.

The Faculty of Medical Sciences at Mona has increased student numbers from 100 per class to 130 and then 160 and intake is now closer to 200. As a result, a new campus is being opened at Montego Bay, and medical teaching is being formally instituted there. Similarly, the St Augustine Campus has increased student numbers to almost 200 per class.

A new order at Cave Hill

The University therefore undertook, with approval of the Government of Barbados, a major development at Cave Hill – the upgrading and expansion of the SCMR into a full Faculty of Medical Sciences, taking students from year 1 of

the medical course (MBBS) in September 2008. This is the most significant paradigm shift in the medical programmes of The University of the West Indies since the establishment of the Faculty at Mount Hope in Trinidad and Tobago at the Eric Williams Medical Sciences Complex. Numbers will expand gradually from an initial intake of 40 or 50 in 2008 to a maximum of 100 over four to five years, both to fulfill the need for the highest quality training of Eastern Caribbean doctors and to convert a high-cost training programme into an income generating one through the additional training of international students and by operating over five years instead of only two as a clinical school. Such a paradigm shift will enable the Faculty to better achieve its Mission, *ie "To promote the growth and development of the Caribbean community through high quality research, education and training, health promotion and disease prevention."* It also fits perfectly into the new 2007–2012 Strategic Plan of the University for global outreach.

Upgrading to a full faculty will:

- C Lower economic cost per student, attracting OECS and other Caribbean students again.
- C Provide needed expansion of UWI medical training places.
- C Attract international students and create an income generating faculty.
- C Add to the high reputation of UWI and Cave Hill as an International Centre of Excellence in the Global Village, attracting international collaboration and Funding.
- C Provide synergies with the Faculty of Pure and Applied Sciences for other programmes.
- C Permit synergies and articulation with the Barbados Community College in other health science programmes.
- C Improve the critical mass of faculty members to strengthen the much needed graduate programmes and research.
- C Promote greater sharing of faculty resources and skills between all campuses

The proposed academic and research programmes will include:

- C A full five-year medical programme, with a Bachelor of Medical Sciences degree awarded after successful completion of year 3 (Phase 1/Stage 1 of MBBS) as approved in 2007 by the Board for Undergraduate Studies (BUS) for all Faculties of Medical Sciences.
- C Strengthened and expanded postgraduate programmes, with emphasis on greatly needed Public Health and Family Medicine postgraduate training (with Diploma, Masters and Doctorate in each of these) and with some programmes translated to distance mode, with international access.

- C Bachelor degree programmes in Biomedical Science in collaboration with the Faculty of Pure and Applied Sciences at a later date.
- C Other Health Science courses, BSc and Masters programmes.
- C Strengthened research through the synergies of the full range of medical sciences, clinical medicine and pharmacology with the Faculty of Pure and Applied Sciences.

Faculty and Building Requirements

Upgrading includes new staff, particularly in pre-clinical sciences of Anatomy, Physiology, Biochemistry and Pharmacology, including a Director of Medical Education, strengthening of Para-clinical Sciences Pathology and Microbiology, Psychology, epidemiology and Public Health, and Clinical specialists, including radiology and priority subspecialists not currently on the full time academic staff, *eg* in ophthalmology, ear nose and throat (ENT), radiology and radiotherapy. With the earlier exposure to clinical practice, part time tutors from family practice will be involved in Problem Oriented Learning/PBL sessions.

There will be two new buildings – a pre-clinical science complex on the Cave Hill Campus, comprising the remodelled former administration building with offices and seminar rooms for small group teaching and a purpose-built Laboratory/Lecture Theatre building, adjacent to the Biology building, to facilitate collaboration in science research and teaching. A clinical teaching building at River Road, next to and linked to the QEH, will accommodate a new state-of-the-art medical library, a clinical skills laboratory, seminar rooms, offices and a medical pathology museum.

The Curriculum and Cross-campus harmonization

The curriculum will be an adaptation of the Mona curriculum, as approved by the Academic Quality Assurance Committee, but leaning slightly more towards the most up-to-date and dynamic details of the present Mona curriculum, harmonizing the best of the Problem Oriented Learning approach (formerly known as Problem Based Learning (PBL) but now integrating clinical cases as the core of the approach) and integrated courses as well as the best of modern medical teaching approaches. This includes more and earlier integration of clinical experience into the Phase 1 course as recommended by the General Medical Council (GMC) of the United Kingdom and by the Caribbean Authority for the Accreditation of Medical Education (CAAM). Multi-modal anatomy teaching will include ultrasound demonstrations, live anatomy, radiology, DVD and web-based materials.

Intensive discussion has taken place since the first of a series of Curriculum Harmonization Workshops over the last three years. Two years ago, the programmes at all four teaching sites were reviewed and accredited by the new

regional Caribbean Authority for the Accreditation of Medical and other Health Education Programmes (CAAM). One of the major recommendations of CAAM was that there should be a single academic officer to ensure greater harmonization of teaching programmes. The result has been the re-creation of the position of University Dean of Medical Sciences and a University Curriculum Coordinator.

Subsequent discussions and planning have centred around the creation of Curriculum Committees at all four sites, and a University Curriculum Committee, co-chaired by the University Dean and the University Curriculum Coordinator.

The Faculty at Cave Hill has also created a post of Director of Medical Education, and the Faculty at St Augustine, a Chair in Medical Education. And on each campus there is a Campus Curriculum Committee and Phase 1 and Phase 2 Curriculum Sub-Committees.

There have been formal site visits by the Dean, Cave Hill (the University Dean) to Mona and St Augustine, meeting with a wide cross-section of Phase 1/Stage 1 faculty members and heads, as well as discussions and collaborations with leading Directors of Programmes at the new medical schools in the United Kingdom and Canada. Collaboration will be on-going between all University of The West Indies campuses as the Cave Hill Phase 1 programme is initiated, with consultation and collaboration from both Mona and St Augustine, while all faculties and the School continue working towards greater harmonization of curricula.

Cave Hill students will spend most of their time in the first three years at the Cave Hill Campus site, providing full participation in campus life, but with some clinical experience in hospital and family practice/primary care settings. Most of the last two years will be at the QEH but also in family practice and community health settings, as at Mona.

Added Value

It cannot be over-emphasized that with the upgrading to a Faculty and the associated expansion of full-time teaching, there will be multiple benefits – both at the undergraduate and postgraduate levels, the clinical and healthcare level for hospital, primary care and public health developments for the region and in providing the synergies for health research. While the Chronic Disease Research Centre (CDRC), a unit of the centrally funded Tropical Medicine Research Institute, was founded as the major research arm of the School and the future Faculty at Cave Hill, the increase in range of basic science and clinical faculty members will greatly increase the research potential and strengths through partnerships and collaboration with both the Cave Hill Faculty in Science, psychology and other social sciences, with the CDRC and Associate Faculty at the QEH and Ministry of Health, and with the health professionals in the OECS, as set out in the Cave Hill Strategic Plan 2007–12. It will also greatly increase the capacity for postgraduate training, to better serve

Eastern Caribbean needs in the many areas of great need but particularly in public health, family medicine, psychiatry, cardiology and orthopaedics, to name the top five priorities.

Entry Requirements

Currently, the entry requirements for Medicine differ at Mona and St Augustine campuses. The St Augustine campus has agreed to bring their academic requirements in line with Mona by 2010, to allow students already in CAPE or The University of the West Indies Year 1 programmes to be eligible. The Cave Hill entry requirements for 2008, our first entry, are those of Mona or those of St Augustine. In addition, co-curricular credits, introduced at Mona some years ago, are being applied at all three campuses. These will have a maximum number of points of only one-third the maximum for three A level/CAPE or University of The West Indies year one subjects at Grade 1 or A grade, and they will have to be fully documented by appropriate letters and stamps from school principals or other organization presidents or secretaries and will be checked by admissions' staff. Thus full harmonization of admission criteria at all three Faculties has been achieved. Invitations to apply will be published at the same time as those for other University of the West Indies courses, in December of each year.

Financial Requirements for upgrading at Cave Hill and Expansion at Mona

The Government of Barbados has approved a loan of Bds \$25 million to provide the capital expenses and the initial expanded faculty capital and initial staffing costs at Cave Hill. The UWI/FMS Business Plan, developed between the University Business Office and Ernst and Young, projects repayment of capital after full expansion to 100 students per year.

Funding at Cave Hill is therefore by three income streams – the continuation of University Grants Committee funding which has funded the Clinical Programme of the SCMR, fees from non-Caribbean or private students and the “loan stream” to fund the capital expenses for the Phase 1 Programme. Some of the capital and recurrent expenditure may be covered through endowments and donations, as part of the Strategic Plan 2007–12.

Expansion at Mona, Montego Bay and San Fernando

In addition to the new programme at Montego Bay, the Faculty at Mona is planning a completely new Basic Science Complex on Aqueduct Road which will have the effect of re-energizing the basic medical science programmes while bringing students closer to the hospital. To accommodate the major increase in student intake, a clinical programme has been established this year at the Western Campus in Montego Bay, utilizing the Cornwall Regional Hospital, Montego Bay, Jamaica. In Trinidad and Tobago, likewise, teaching has expanded to incorporate the San Fernando General Hospital to a much greater extent.

Medical Research

In addition to the modernization and expansion of undergraduate programmes and the expansion of postgraduate programmes at all sites, the University has continued to emphasize medical research both through support of individual initiatives and through the formation of the Tropical Medicine Research Institute (TMRI). From earliest days, the research of Sir Kenneth Stuart, Professor Gerrit Bras, Professor John Waterlow and others has brought the University an international reputation, and the output of this generation of researchers continues the tradition. The TMRI comprises four collaborating centres – the original Tropical Metabolism Research Unit, the Sickle Cell Unit and the Epidemiology Research Unit, all at Mona, and the Chronic Disease Research Centre (CDRC), the research arm of the Faculty of Medical Sciences at the Cave Hill Campus in Barbados.

Continuing Medical Education

Continuing medical education (CME) of the practising professionals has been seen as a function of the Medical Faculties to varying degrees on different campuses and at different times. It has sometimes been a dedicated effort of a single individual *eg* the popular Medical Updates of the 1980s organized by Professor Courtenay Bartholomew in Trinidad and Tobago. It has, in Jamaica, been largely conducted by the Medical Association or the specialist groups *eg* the Association of Surgeons. In Barbados, where the professional bodies are smaller, the SCMR and now the Faculty of Medical Sciences has seen CME as a core function and has run a formal programme since 1980, with two to four major conferences each year. Indeed the SCMR, in collaboration with the Barbados Association of Medical Practitioners, has organized more than 60 CME conferences since its formal establishment of a CME programme, including some 20 in the islands of the neighbouring OECS. But successful and highest quality CME is contingent on mandatory requirements for re-registration which Caribbean Medical Councils

have been reluctant to embrace. Only Guyana and now Jamaica have done so, to a modest extent. It is long overdue in Barbados and Trinidad and Tobago.

Conclusion

The Medical Faculties of the University of the West Indies have served both their host nations and the region effectively (3) and must retain and enhance their international reputation as Centres of Excellence in medical education (undergraduate, postgraduate and continuing medical education) and health research.

It is important therefore that the opportunities provided by the huge international medical student education needs and “competition” from the “for-profit” Offshore Medical Schools which have brought this market to the Caribbean, be faced directly, by investment in producing the best possible international Faculties of Medical Sciences, while serving our own communities much more effectively. The Faculties’ strategic plans for 2007–12 reflect and magnify the past 60 years of the Medical Faculties outstanding performance and share the vision of the University Strategic Plan 2007–12, that “*By 2012 The University of the West Indies will be an innovative, internationally competitive, contemporary university deeply rooted in the Caribbean, committed to creating the best possible future for all our stakeholders ... the university of first choice for the region’s students and talented academics ...*” (4). This, the 60th anniversary year of The University of the West Indies is a significant year in the next phase of the development of our medical faculties – upgrading, expansion and globalization.

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