



DEPARTMENT OF BASIC MEDICAL SCIENCES

Professor Jean-Pierre Louboutin, MD, PhD – Head of Department

VISION OF THE DEPARTMENT

A multidisciplinary Department promoting excellence in teaching and research in Basic Medical Sciences at the regional and international levels.

MISSION OF THE DEPARTMENT

To advance student development by improving the quality of teaching and to foster biomedical research and its dissemination at the Caribbean level and beyond.

WORK OF THE DEPARTMENT

The Department of Basic Medical Sciences comprises five sections: Anatomy, Biochemistry, Pharmacology and Pharmacy, Physiology and Physical Therapy. This unique combination offers an integrated approach to a better knowledge of the Human body, as well as to the mechanisms observed during pathophysiological processes. With the establishment of the Pharmacy (PharmD) programme, the section of Pharmacology was renamed Pharmacology and Pharmacy in 2017.

The Biochemistry Section of the Department of Basic Medical Sciences delivers teaching to more than 1,000 students per year at the Faculty of Science and Technology in the disciplines of Microbiology, Biochemistry, Molecular Biology, and Biotechnology.

Besides teaching students of the Faculty of Science and Technology in Biochemistry, the main role of the Department is to train future Health Professionals in several high-income generating programmes (MBBS/DDS, Physical Therapy, PharmD, SMRT, UWISON). The teaching must be excellent, considering the future role of these students in the Jamaican Health System. The training is student-centered with student success at the core of it, bearing in mind the impact on the health of the population. The students are critical stakeholders in these programmes, not only considering their personal or familial financial involvement in these high-

fees programmes, but also because they will represent the quality of the teaching received at the University in front of their future patients.

Two consultancy service units are also part of the Department. An established independent commercial Forensic Toxicology Unit under the name “CARIBBEAN TOXICOLOGY” (CARITOX) continues to build its core forensic and bio-analytical research. CARITOX provides 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. Caribbean Genetics (CARIGEN) provides a wide range of services and analyses, including forensic services, to clients. It also supports teaching at the graduate and undergraduate levels in forensic science and research within the University.

Quality Assurance Reviews and Accreditations

The Department underwent a Quality Assurance Review in November 2021 when the department was still operating online. A report on this Quality Assurance Review performed in November 2021 as well as related answers, was presented to the Faculty of Medical Sciences Board Meeting in November 2022 and to the Academic Board Meeting on January 10, 2023. Different points were underlined in this report, namely the financial constraints which impacted negatively on teaching and research and were exacerbated by the COVID-19 pandemic, the poor state of the Animal house, the Academic teaching overload, as well as the systemic issues with postgraduate students’ dissatisfaction and attrition.

The report presented in January 2023 highlighted the financial constraints being faced by the Department which at that time were due to a reduction in the budget as a result of the pandemic. The COVID-19 pandemic significantly disrupted the normal functioning of The UWI and the Department of BMS, in particular. Limited financial resources due in part to the reduced number of students, particularly in the MBBS programme in this academic year, has further imposed financial constraints on staff and students. The number of MBBS students is about 170 in AY2022–2023. It contrasts with a number of students higher than 250 registered in the MBBS programme before the pandemic.

It should be noted that several Universities overseas were also impacted by the COVID-19 pandemic with a reduction of students in the same order (minus 21–25% over three years) as the one observed at The UWI.

Partly due to the pandemic, the overall budget of the Department was drastically reduced during Academic Years 2020–2021 and 2021–2022. The sum allocated to the reagents used for teaching and research, as well as for cleaning supplies decreased substantially. We had to adapt our activities to this reduction of the budget allocation. Somehow, this was partly possible because of a reduced traffic

in the building, and because there was no teaching in most of the large laboratories, and consequently less need for cleaning after the tutorials. On the other side, we insisted on the cleaning protocols adopted during the pandemic (i.e., repeated cleaning of the most touched surfaces during the day), protocols which actually originated from BMS.

One of the negative consequences related to the COVID-19 pandemic was to freeze the establishment of some programmes: BSc Nutritional Sciences, MSC in Molecular Therapy (in collaboration with a company called Giostar) and Degree in Funeral Services.

Because of the return to face-to-face teaching (Semester I Academic Year 2022–2023), with the students present during the labs, we are in a situation requiring more reagents. Consequently, we requested for Academic Year 2022–2023 the same sum as in AY2018–2019, right before the pandemic. The budget was slightly increased in Academic Year 2022–2023, particularly concerning the cleaning supplies. However, considering the inflation, the constant devaluation of the Jamaican dollar, and the increase in the shipping costs, a reduction by around one third of the quantities of supplies that could have been purchased with the same sum in Academic Year 2018–2019 was anticipated. This fluid situation needed an adjustment of the budget and the amount was actually slightly adjusted during Semester II Academic Year 2022–2023.

The recommendations of the Quality Assurance Review (QAR) team were to start a curriculum mapping in order to streamline content across programmes, to put in place a more efficient procurement system with dedicated accounts for expenditure and graduate research, to increase student-based learning, to build a new Animal House compatible with international criteria, while overall stressing the urgent need to acquire funding to meet the Academic mission.

Concerning the Animal House, a discussion with the former FMS Dean, currently Deputy Principal, Dr. Tomlin Paul, suggested to build a three tiered structure, with the Animal House on the ground floor, a shared area for multidisciplinary research, including biobanking (including proteomics, genomics) on the 2nd floor, and teaching spaces for growing programmes initially not planned to be in FMSTRC (i.e., PharmD, SMRT) on the 3rd floor. However, these plans might be incompatible with the current financial situation of the University.

On a positive note, the Department continued to contribute to the digital transformation in both teaching and research, to participate in cross-campus teaching, to foster multidisciplinary research in different fields in a more collaborative way between the sections, as well as with different Schools and Faculties on Mona Campus and internationally, and finally to be engaged in outreach.

A follow-up report of the Quality Assurance Review of the Section of Physical Therapy was presented to the Academic Board Meeting on November 18, 2022. The review was a stand-alone one and the recommendation by the QAR team was to acquire a greater autonomy for the Section of Physical Therapy.

The Department was actively involved in the Caribbean Accreditation Authority for Education in Medicine and other Health Professions (CAAM-HP) review which took place in November 2022 under the leadership of Dean Thame. Several academic staff of BMS are participating in the teaching delivery in the MBBS programme, including the Stage I Coordinator of this programme (Dr. Sherline Brown). The recent accreditation of the programme for five years by CAAM-HP in July 2023 enhances the reputation of the MBBS degree and of the University as a whole. It is also essential to attract more students to this high-income generating programme. This is particularly important considering the increased competition in this field of education/training in the region. The Department is also involved in the CAAM-HP Review of the DDS programme.

It must be noted that an accreditation was awarded to CARIGEN for a two-year period, (2023-2025) by the College of American Pathologists. This accreditation attests of the quality of the work and analyses done in the CARIGEN Laboratory, one of the few Laboratories which received this distinction in the Caribbean area.

Teaching

As previously noted, after the long online parenthesis due to the COVID-19 pandemic, the teaching is now back to face-to-face.

Besides classical methods of teaching delivery, the Department is using novel methods. The involvement of the Department in the digital transformation of the University in different areas is illustrated by different examples. A formative assessment of MBBS/DDS students is accomplished in Physiology and Anatomy using virtual clickers where students can use their own devices, in collaboration with MITS. The goal is to increase the interaction with the students and to enhance their participation. Apps (i.e., Socrative) are also used with the same purpose. The use of Bodyviz, a software allowing the 3-dimensional reconstruction of images (i.e., MRI), has been implemented in the teaching of Anatomy for Physical Therapy and BBMedSc students, not only for the delivery of the teaching, but also for assessing the students using the bank of questions included with the software. Several Academic staff members, particularly of the Section of Anatomy, underwent a training in Virtual Reality using the EON-XR platform in collaboration with the Open Campus, and obtained a certification demonstrating a proficient academic usage of the EON-XR platform. Cross-campus teaching in Anatomy/Histology/Embryology has been existing between Mona and Cave Hill for several years. Sim-

ilar cross-campus delivery between Mona, Cave Hill, St Augustine and Bahamas campuses are the base for teaching delivery of the NeuroAnatomy part of the DM Psychiatry. These initiatives contribute to the harmonization of the programmes between the different campuses. Digital transformation exists also in research. For example, it is possible to examine and acquire in Mona the images of scanned histological slides from a server of the Gene Therapy Program in the University of Pennsylvania, Philadelphia, using a particular software and to perform morphometric studies using these data.

Under the leadership of Dr Sherline Brown, Stage 1 Co-ordinator of the MBBS programme, the curriculum committee approved the revised format of the curriculum for Stage 1, following the suggestions of the Stage 1 Curriculum Working Group Committee. The committee comprises of several Academic Staff of BMS. Among the suggested recommendations were an increase of the contents related to radiology, ethics and gender issues in the Stage I curriculum.

The Department continues to participate in the teaching of DM Surgery Residents in the fields of Physiology and Anatomy, as well as to contribute to the related examination process for these students.

The Department remains involved in an experiment of self-learning where 2nd and 3rd year-MBBS students are mentoring 1st-year students, by performing demonstrations and mock-examinations on Thursday afternoons, in the context of a student association called UWISS (UWI Surgical Society). This initiative motivates the older students and make them familiar with preparing topics and presenting in front of small groups. In order to prepare their presentations, students come to the laboratory outside of regular hours. It is beneficial to the 1st year students as they can receive advice from their peers.

Research

As noted by the members of the QAR team in their report, “the Department is to be commended for its strong research culture as, despite challenges of the COVID-19 pandemic, there was a substantial increase in the number of peer-reviewed publications. Graduate students also actively contribute to research in the Department”. However, financial constraints directly impact the productivity of the Academic staff members.

During the last year, there was an effort to increase the collaboration between different sections in the Department. For example, a project focused on novel treatment of seizures by natural products are involving the Sections of Physiology, Anatomy, Pharmacology and Biochemistry. A similar approach has been used for studies on the experimental treatment of diabetes. A collaboration was developed between the Section of Anatomy, SMRT and the Department of Physics in the

Faculty of Science and Technology to study the effects of strontium on the urinary excretion of calcium in rats. The Department continues to develop international collaborations. Most of them are featured in the report itself.

The Department continues to be at the forefront of the cannabis research. Several Academic Members of the Department are a part of the Cannabis Licensing Authority. Some Academic members of the Department (Carole Lindsay and JP Louboutin) are a part of the Jamaica Psilocybin Industry Technical Committee, the Bureau of Standards, Jamaica, under the leadership of Senator Dr. Sapphire Longmore.

Staff Matters

The Department was again faced with constraints in resources that largely dominated decision-making. The issue of securing academic staff in vacant posts remain a concern, and in several cases, particularly in Anatomy, post-retirement contracts have had to be extended. However, vacant posts have been advertised, and short-listing have taken place. There remains a concern about the time it takes for the Human Resource Management Division to finalize advertisements for posts as well as the turnaround time for contract preparations.

The Department also faced a series of retirement from the Technical staff due to their salary scale. The Department was also impacted by the reduction in Postgraduate students which resulted in very few demonstrators to assist in the labs.

Equipment

Several steps have been accomplished in the establishment of a Sterile Laboratory for the Pharmacy programme. This laboratory would allow for the forging some relations with hospitals of the area, for example through the production of anti-cancer drugs. A business plan is currently being discussed.

Outreach

The Department participates regularly in different outreach initiatives. For example, the Department contributed to several job fairs (i.e., Jamaica College) in order to present the activities taking place in the Department and to attract prospective students.

The Department was visited by several schools. Every year, some students from the University of Utrecht (Netherlands) visit the Department, more particularly the section of Anatomy and the Faculty of Medical Sciences Museum.

The Section of Physical Therapy has significantly contributed to the outreach initiative for several years by making contact with patients during field trips, most of the time associated with the ones organized by the DDS programme.

All these initiatives illustrate the contribution of the Department of Basic Medical Sciences and the Faculty to public service, through outreach events. However, the Department might need to enhance its collaboration with the Society for Scientific Advancement (SoSA) and its STEM programme.

Celebrations

The Physical Therapy Section commemorated the UWI 75th Anniversary with a Virtual Seminar under the theme “Physical Therapy: Rooted, Ready and Rising to meet the needs of the Ageing Population”. This was held on June 28, 2023.

The Physical Therapy Section celebrated 50 years of Physical Therapy education in the Caribbean in September–October 2022. Four events were held to mark this milestone.

STAFF AWARDS AND PROMOTIONS

- **Dr. Simone Sandiford** was seconded to The Rowett Institute, University of Aberdeen – November – December 2022.
- **Prof. Ragoobirsingh** was appointed in 2023 to the “WHO Guideline Development Group Food Fortification with Micronutrients”, in the education of the general community concerning diabetes.
- **Drs. Kedambady Shetty, Simone Badal, Karen Thaxter and Garsha McCalla** were granted indefinite tenure effective August 2022.
- **Dr. Cheryl Stewart** crossed the Merit bar effective August 2022.
- **Mr. Compton Beecher** was promoted to Senior Level II effective August 2022.
- The Ministry of Culture, Gender, Entertainment, and Sport named **Dr. Simone Badal** as one of three women in STEM to be celebrated for International Women Day at the Pegasus Hotel Jamaica, 2023. Each gave a 15 minutes’ Ted style talk on their respective career.
- **Dr. Simone Badal**. Flair Distinguished Award for Science and Technology, 2022. Thirty-five women in Jamaica were selected for their impactful work in the fields of, Agriculture, Arts and Culture, Business, Education, Entertainment, Fashion, Food, Health, Media and Communications, Nation Building, Science and Technology, Sports, and Volunteerism. The Award was presented at the fourth Flair Distinguished Award at the Pegasus Hotel, Jamaica, April 4th 2022.
- **Dr. Simone Badal**. Scientific Research Council’s ‘S&T XXtrordineer JA.’ Publication, 2022. I was selected as one of Jamaica’s female pioneering scientist to participate in the S&T Xxtrondineers JA (Women in Science) Series, a recognition programme that highlights extraordinary female pioneers in science and technology. The documentary series and publication highlights the scientific

works of phenomenal Jamaican women who have impacted the national development of our country. July 2022.

- **Dr. Stacy Stephenson-Clarke** was an Honorary Research Fellow on the European Union Research and Innovation Staff Exchange (RISE) MILEAGE (Micro-nutrients in Life Expectancy and Ageing) project (August 2022–January 2023) at the University of Aberdeen, United Kingdom.

Resignation

- Mr. Karl Miller
- Mr. Antoni Comrie
- Ms. Anishka Lewis
- Ms. Jennilee Sydial-Henry

Retirement

- Prof. Jean-Pierre Louboutin
- Dr. Jacqueline Campbell

Long service Award

Staff members of the Department of Basic Medical Sciences were recognized for their dedication and contribution to the University of the West Indies at a formal event at the AC Marriott on Thursday, December 1, 2022.

ACCESS

STUDENTS

Undergraduate Students Registration 2022/2023

BB Med Sci.

Year 1 = 35

Year 2 = 24

Year 3 = 24

(Physiology Major)

Year 2 = 4

Year 3 = 3

(Anatomy Major)

Year 2 = 8

Year 3 = 10

(Pharmacology Major)

Year 2 = 12

Year 3 = 11

BAMS1002 = 40

BAMS1005 = 36

BSc -Physical Therapy (2022–2023)**Enrolment**

Year 1 = 43

Year 2 = 41

Year 3 = 26

Total = 110**MSc- Physical Therapy**

8 students were enrolled for the academic year 2022–2023.

Graduated

Thirty-one (31) students graduated in October 2022 with the BSc Physical Therapy. One (1) was awarded First Class Honours.

One (1) student was awarded the MSc PT degree in October 2022.

PharmD (Registrations in BMS courses)

Year 1 = 20

Year 2 = 23

Year 3 = 32

Year 4 = 21

Year 5 = 27

There were 13 additional students on Leave of Absence.

FST (Registrations in BMS courses)**Year 1****Semester 1**

BIOC 1020 = 199

BIOC 1021 = 147

MICR 1010 = 120

MICR 1011 = 123

Semester 2

BIOC 1020 = 172

BIOC 1021 = 131

MICR 1010 = 182

MICR 1011 = 156

Year 2**Semester 1**

BIOC 2014 = 136

Semester 2

BIOL 2312 = 152

MICR 2211 = 139; MEX = 12

Year 3**Semester 1**

BIOL 3312 = 92
 BIOG 3013 = 96
 MICR 3213 = 68
 MICR 3214 = 29
 BIOT 3113 = 42

Semester 2

BIOC 3011 = 95
 BIOG 3014 = 57
 BIOG 3413 = 8
 BIOL 3313 = 43
 BIOT 3114 = 52
 BIOT 3116 = 16

MICR 3215 = 54

MICR 3216 = 23

POST GRADUATE STUDENTS REGISTRATION**Taught Masters**

MSc Forensic Science = 19

MSc Physical Therapy = 5

MSc Biomedical Research = Year 1 = 15

MSc

MSc FSCI (Biology) - 7

MSc FSCI (Chemistry) - 3

MSc FSCI (Pathology) - 1

MSc (Toxicology) - 5

PG Diploma Forensic Science = 3

Research

MPhil = 13

PhD = 14

POSTGRADUATE DEGREES AWARDED**PhD**

Isaac Morrison – Biochemistry

Kenroy Wallace – Biochemistry

Sasha-Kay Clarke – Molecular Biology

Kemmoy Lattibeaudiere – Biochemistry

Tamieka Bartley – Biochemistry (High Commendation)

Carole Lindsay – Biochemistry (High Commendation)

Tameika James-Green – Physiology

MPhil

Trisha Blair – Pharmacology

Shannique Clarke – Biochemistry

MSc

Biomedical research

Year 1 = 8

Year 2 = 7

PUBLICATIONS**Refereed Journal Articles**

- Shanea Gibson, Nadine Johnson, Simone Simpson Brown, Shwantay Hartley, Keisha Maloney, **Maxine Gossell-Williams** and Tiffany Hunter (2023). Pregnancy outcomes in systemic lupus erythematosus: experience from a Caribbean center, *The Journal of Maternal-Fetal & Neonatal Medicine*, 36:1. doi.org/10.1080/14767058.2023.2204392
- Smith L, **Gossell-Williams M**, Standard-Goldson A, Jackson MD. (2023). Antihypertensive medication class and diastolic orthostatic hypertension in older Caribbean adult patients. *J Clin Hypertens*. 25(7), 618–627. <https://doi.org/10.1111/jch.14689>
- Salas, M., **Gossell-Williams, M.**, Yalamanchili, P., Dhingra, S., Malikova, M. A., Aimer, O., & Junaid, T. (2023). *The Use of Biomarkers in Pharmacovigilance: A Systematic Review of the Literature*. *Biomarker Insights*, 18, 11772719231164528.
- Harrison, A., Tyrill, C., Cousins, S., Rocke, K., & **Gossell-Williams, M.** (2023). Disparity between adolescents' health information needs and the information received in a middle-income country. *Journal of Tropical Pediatrics*, 69(2), fmad018. <https://doi.org/10.1093/tropej/fmad018>
- A. Dasantos, C. Goddard and **D. Ragoobirsingh** (2022). Diabetes Distress in Barbadian Adults with Type 2 Diabetes. *AIMS Public Health*, 9(3): 471–481. DOI: 10.3934/publichealth.2022032.
- A. Dasantos, C. Goddard, D. Maynard and **D. Ragoobirsingh** (2023). Diabetes Distress in a Barbadian Population with Type 2 Diabetes Mellitus: A Pilot Test. *Journal of Public Health Research*, 2023, Vol. 12(3), 1–5. DOI: 10.1177/22799036231187006
- Golding MAJ, Khouri NK, Anderson KB, Wood TD and **Sandiford SL**. The use of natural products in Latin America and the Caribbean for blocking dengue infection in mosquito cells. *Front. Virol.* 2023, 3:1130171. doi:10.3389/fviro.2023.1130171 <https://www.frontiersin.org/articles/10.3389/fviro.2023.1130171/full>

- Ali I, Alarcón-Elbal PM, Mundle M, Noble SAA, Oura CAL, Anzinger JJ, **Sandiford SL**. The Others: A Systematic Review of the Lesser-Known Arboviruses of the Insular Caribbean. *Viruses* 2023, 15, 843. <https://doi.org/10.3390/v15040843>
- Valentine H, Aiken W, Morrison B, Zhao Z, Fowle H, Wasserman JS, Thompson E, Chin W, Young M, Clarke S, Gibbs D, Harrison S, McLaughlin W, Kwok T, Jin F, Campbell KS, Horvath A, Thompson R, Lee NH, Zhou Y, Grana X, Ragin C, **Badal S**. 2022, Expanding the prostate cancer cell line repertoire with ACRJ-PC28, an AR-negative Neuroendocrine Cell Line Derived from an African-Caribbean Patient. *Cancer Research Communications*, 2022, 2-1355-1372.
- Mucci L, Vinson J, Gold T, Gerke T, Filipenko J, Green R, Anderson S, **Badal S**, Bjartell, Chi K, Davis I, Enting D, Fay A, Lazarus J, Mateo J, McDermott R, Odedina F, Olmos D, Omlin A, Popoola A, Ragin C, Roberts R, Russness K, Waihenya C, Stopsack K, Hyslop T, Villanti P, Kantoff P, George D, on behalf of the IRONMAN global team, IRONMAN: A novel international registry of men with advanced prostate cancer. *JCO Global Oncology*, 2022, 8: doi: 10.1200/GO.22.00154.
- Clarke S, Chin S, Dodds Leah, George SHL, **Badal S**. 2022, Racial Disparities in Breast Cancer Preclinical and clinical models. *Breast Cancer Research*, 2022, 24, 56. PubMed PMID: 35932017.
- Brown P.A., **Brown P.D.** (2023). Extracellular Vesicles and Peripheral Arterial Disease. *Cardiovascular Pathology* 63, 2023, 107510. <https://doi.org/10.1016/j.carpath.2022.107510>.
- Lindsay C.M., Bernard K.K., Taylor T.T., Hammond A., Beckford S., Abel W.D., **Brown P.D.**, Young-Martin L. (2023). Potency trends of Cannabis in Jamaica during the period 2014 to 2020. *Drug Test Anal.*
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- Stone, S., Thoms-Rodriguez, C. A., Cameron, J., Seah, C., **Stephenson-Clarke, S.**, & Melano, R. G. (2023). New Delhi Metallo-Beta-Lactamase (NDM)-5 in

Uropathogenic *Klebsiella pneumoniae* in a Tertiary Care Hospital in Jamaica. *Microbiology spectrum*, 11(2), e0345922. Advance online publication. <https://doi.org/10.1128/spectrum.03459-22>

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- McCalla, G., Brown, P. D., & **Nwokocha, C.** (2023). Cadmium induces microcytosis, hypochromicity, and anisocytosis without anaemia in hypertensive rats. *Biometals*. <https://doi.org/10.21203/rs.3.rs-3204119/v1>
- Hedge, T., Rattray, V., Coleman, N. Y., Wilks, R., & **Nwokocha, C.** (2023). PS-P12-6: Cadmium and hypertension in kingston jamaica: any correlation? *Journal of Hypertension*, 41(Suppl 1), e492. DOI: 10.1097/01.hjh.0000917948.36498.44
- Ben, E. E., Beshel, J. A., Owu, D. U., Palacios, J., Nwokocha, M., Bórquez, J., & **Nwokocha, C. R.** (2023). Identification of phytochemicals and assessment of hypoglycemic and haematological potentials of Terminalia catappa Linn leaf extract in alloxan-induced diabetic Wistar rats. *Cardiovascular & Hematological Agents in Medicinal Chemistry*. <https://doi.org/10.2174/1871525721666230526152917>
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- Brown, M. G., Lindo, J., Nelson, K., Vickers, I., **Wilson-Clarke, C.**, Morse, G., & Talal, A. (2023). Seroprevalence and Genotype Diversity of Hepatitis C Virus in the Caribbean-A Review. *Trop. Med. Infect. Dis.* 8, 370. DOI: 10.20944/preprints202304.0761.v1.
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- Brown, P.A., Anderson, R.A. (2023). A methodology for preprocessing structured big data in the behavioral sciences. *Behavioral Research*. 55, 1818–1838. <https://doi.org/10.3758/s13428-022-01895-4>

Books and Book Chapters

Book:

- **Badal, Simone.** An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies, Second Edition, 2023, Pgs 800. ISBN-13: 978-0443186578. Copyright © 2017 Elsevier Inc. (citation = 68).
- **Badal, Simone.** No Cell Left Behind. Memoir. Pgs 200. Copyright © 2023 Bambu Sparks Inc.

Book Chapter:

- **Badal, S,** Miller GJ and Sattley WM, “Plant metabolites treating diseases” in An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies, 2nd Edition, Badal S (Ed.) and Clement Y (Ed.), 2023, ISBN 13 978-0443186578.
- Daley DK and **Badal, S,** “Plant crude drugs” Applications and Future Strategies, 2nd Edition, Badal S (Ed.) and Clement Y (Ed.), 2023, ISBN 13 978-0443186578.
- Clarke S, Jackson MA and **Badal, S,** “Animal metabolites: from amphibians, reptiles, aves/birds, and invertebrates” in An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies, 2nd Edition, Badal S (Ed.) and Clement Y (Ed.), 2023, ISBN 13 978-0443186578.
- **Badal, S,** “Introduction to plant secondary metabolites” in An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies, 2nd Edition, Badal S (Ed.) and Clement Y (Ed.), 2023, ISBN 13 978-0443186578.
- **Badal, S** and Facey P, “Fungal metabolites” in An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies, 2nd Edition, Badal S (Ed.) and Clement Y (Ed.), 2023, ISBN 13 978-0443186578.
- **Badal, S,** “Ethics of pharmacognosy research” in An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies, 2nd Edition, Badal S (Ed.) and Clement Y (Ed.), 2023, ISBN 13 978-0443186578.
- **Badal, S,** and Clement Y, “Pharmacognosy background” in An Introduction to Pharmacognosy: Fundamentals, Applications and Future Strategies, 2nd Edition, Badal, S (Ed.) and Clement Y (Ed.), 2023, ISBN 13 978-0443186578.
- DA McGrowder, LW Anderson-Jackson, LL Dilworth, S Mohansingh, M Anderson-Cross, SJ Bryan, FG Miller, K Vaz, CF Wilson-Clarke, C Nwokocha, **RL Alexander-Lindo,** S McFarlane (2022). The Clinical Usefulness of Prostate

Cancer Biomarkers: Current and Future Directions. *Cancer Bioinformatics*. In G. Kais, & Y. Hamdi (Eds.), *Cancer Bioinformatics [Working Title]*. IntechOpen. <https://doi.org/10.5772/intechopen.103172> The link is: <https://www.intechopen.com/online-first/82080>

Editorial

- Liu Y, Wang J-b, Zeng L, **Gossell-Williams M**, Moriel P and Yan M (2023) Editorial: Advances in drug-induced diseases. *Front. Pharmacol.* 14:1193099. doi: 10.3389/fphar.2023.1193099.

ALIGNMENT

PAPERS/POSTERS PRESENTED AT SCIENTIFIC MEETINGS

- Smith L, **Gossell-Williams M**, Standard-Goldson A, Jackson M.D. Association Between Antihypertensive Medication Class and Orthostatic Blood Pressure Dysregulation in Older Caribbean Adult Patients. Received in a Middle-Income Country 13th National Health Research Conference November 16–18, 2022. Abstract number NHRC_22_11.
- Harrison A, Tyrill C, Cousins S, Rocke K, **Gossell-Williams M**. **Disparity Between Adolescents' Health Information Needs and the Information Received in a Middle-Income Country** 13th National Health Research Conference November 16–18, 2022. Abstract number NHRC_22_21.
- **Nelson, Gail**. “The effect of exercise on muscle mass and functional capacity in community-dwelling elderly with Sarcopenia in Jamaica”. *Presented at the World Physiotherapy Congress, Dubai, UAE, June 2–4, 2023*.
- **Gordon, Carron**, Silvera, Heather, Jones, Thaon, Deslandes, Veroina, Garbutt, Andrea, Wilson-Clarke Cameil: Readiness for and Attitude Towards Interprofessional Learning in the Faculty of Medical Sciences, UWI. *Presented at the World Physiotherapy Congress, Dubai, UAE, June 2–4, 2023*
- **Williams, Sonja**: Epidemiology of Aging. *Presented at the Section of Physical Therapy, UWI 75th Anniversary, Virtual Seminar, June 28, 2023*.
- **Nelson, Gail**. “Screening for Sarcopenia in Jamaican elderly”. *Presented at Section of Physical Therapy, UWI 75th Anniversary, Virtual Seminar, June 28, 2023*.
- **Sandiford, Simone**. Got Vectors? Knowledge Gaps in vector-borne diseases in Jamaica – SUNY Upstate Medical University, Syracuse NY, July 18, 2023 SUNY-UWI Health Research Consortium Conference. Pathogen surveillance in mosquitoes. The University of the West Indies, Mona, Kingston, Jamaica. March 9, 2023.

- **Badal S**, SUNY 2023, SUNY-UWI Health Research Consortium Conference, March 9–10th The UHWI. A talk on ACRJ Laboratory and our projects.
- **Badal S**, Lazarex cancer wellness hub 2022, A Black woman's story: Finding the human side to cancer treatment, June 2nd, 2022, via zoom. A talk on Black women with breast cancer.
- Stone S., Dawson F., Stephenson-Clarke S., Cameron J., Seah C., Melano R., **Brown P.D.**, Gossell-Williams M., Thoms-Rodriguez CA. (2022). Co-habitation of ESBLs plasmid-mediated AmpCs in uropathogens at a tertiary care hospital in the Caribbean. UWI/UTech FORECAST Conference (Virtual) August 10-12, 2022. (Remote presentation by Mr. Steven Stone, postgraduate student)
- **Brown P.D.** (2022). Policy Discussion: Pandemic Centres. International Congress on Infectious Diseases, Kuala Lumpur, Malaysia; November 19, 2022
- Onuoha C., Stephenson-Clarke S., Thoms-Rodriguez C.A., **Brown P.D.** (2022). Mixed-species biofilms and resistance to heavy metals and disinfectants: Implications for UPEC and UTIs. International Congress on Infectious Diseases, Kuala Lumpur, Malaysia; November 20, 2022.
- Onuoha C., Stephenson-Clarke S., Thoms-Rodriguez C-A., **Brown P.D.** (2022). Mixed-species biofilms and tolerance in high-oxidizing environments: Implications for pathogenesis in respiratory infections. Current and Innovative Trends in Applied Biosciences (CITABS) 2022 Conference, Lahore Garrison University, Pakistan; November 22, 2022. (Remote presentation)
- **RL Alexander-Lindo, V Williams-Tyndale, W McLaughlin, (2022). The Effects of Various Strains of Cannabis sativa on Blood Glucose Concentrations in Normoglycaemic Sprague-Dawley Rats. The Ministry of Health and Wellness 13th Annual National Research Conference, November 16–18, 2022 (Oral Presentation)**
- S Newman, I Amarakoon, RL Alexander-Lindo (2022). A Biological Active Enquiry of *Tradescantia zebrina* (Wandering Jew/Red Watergrass) on Blood Glucose Levels in Normal Sprague-Dawley Rats 66th CARPHA Health Research Conference September 15–17, 2022 (Oral Virtual).
- S Newman, I Amarakoon, **RL Alexander-Lindo (2022)**. A Biological Active Enquiry of *Tradescantia zebrina* (Wandering Jew/Red Watergrass) on Blood Glucose Levels in Normal Sprague-Dawley Rats. *West Indian Medical Journal* **70 (Suppl 1): 1–61 (ISSN 2309-5830)**.
- Onuoha, C., **Stephenson-Clarke, S.**, Thoms-Rodriguez, C-A, & Brown, P. (2022). Mixed-Species Biofilms and Resistance to Heavy Metals and Disinfectants: Implications for UPEC and UTIs. Oral Session 8: IPC/Healthcare Associated Infections & Critical Care Date: Sunday, Nov 20, 2022 Time: 10.30-12:00 Venue: Meeting Rooms 304 & 305. <https://doi.org/10.1016/j.ijid.2023.04.067>

- Stone, S.Z., **Stephenson-Clarke, S.**, Cameron, J., Thoms-Rodriguez, C-A. (2022). Multidrug Resistant Uropathogens at a Major Referral Centre in the Caribbean- A Cause for Concern. Microbiology Virtual Week 2022. September 8, 2022 [virtual]

SPECIAL PRESENTATIONS AND INVITATION LECTURES

- RL Alexander-Lindo (2023). The Journey of Some Natural and Synthetic Compounds: From Bench to Products. Inaugural Professorial Lecture, Faculty of Medical Sciences, UWI, Mona.

CONFERENCE ATTENDED

- **Gossell-Williams M.** American Society of Pharmacology and Experimental Therapeutics 2023 Conference held in St. Louis Union Station Hotel, May 18–22, 2023.
- **Ragoobirsigh, D.** American Diabetes Association 83rd. Scientific Session, June 23–26, 2023 Convention Centre, San Diego, USA
- **Young-Martin, L.** The Alzheimer’s Association International Conference 2023 (AAIC) annual conference, July 16–20, 2023, Amsterdam, Netherlands.
- **Sandiford, Simone.** American Society of Tropical Medicine and Hygiene-Seattle Washington – October 30–November 3 2022.

WEBINARS/WORKSHOPS ATTENDED

- **Young-Martin, L.** AAIC webinar/workshop: *A Cellular View of Brain Metabolism in Alzheimer’s Disease*, Monday, December 5, 2022.
- **Young-Martin, L.** AAIC webinar/workshop: *Exploring hippocampal replay as a potential therapeutic target in Alzheimer’s disease*, Monday, May 22, 2023.
- **Young-Martin, L.** AAIC webinar/workshop: *New Biofluid Biomarkers in Subjective Cognitive Decline Alzheimer’s Disease*. Wednesday, June 7, 2023.
- **Young-Martin, L.** AAIC webinar/workshop: *The Basics of Dementia and Microbiome Research*, **Thursday, June 15, 2023.**

ABSTRACTS

- Valentine H, Aiken W, Morrison B, Zhao Z, Fowle H, Wasserman JS, Thompson E, Chin W, Young M, Clarke S, Gibbs D, Harrison S, McLaughlin W, Kwok T, Jin F, Campbell KS, Horvath A, Thompson R, Lee NH, Zhou Y, Grana X, Ragin C, **Badal S.** 2022, **Abstract PO -138: The first Caribbean cell line, a prostate cancer cell line: ACRJ-PC28. Cancer epidemiology, biomarkers, and prevention, 2022, 31-1355-1372.** (Journal Impact Factor=4.344).

Onuoha, C., **Stephenson-Clarke, S.**, Thoms-Rodriguez, C.-A., & Brown, P. (2023). Mixed-Species Biofilms and Resistance to Heavy Metals and Disinfectants: Implications for UPEC and UTIs. *International Journal of Infectious Diseases*, Volume 130, Supplement 2, Page S29, ISSN 1201-9712, <https://doi.org/10.1016/j.ijid.2023.04.067>

PUBLIC SERVICE

Prof. Jean-Pierre Louboutin

- Member of Editorial Boards of 27 journals
- Frontier Section Editors – CNS & Neurological Disorders – Drug Targets
- Review of Grant projects for the Executive Unit for Financing Higher Education, Research, Development and Innovation, Romania.

Prof. Paul Brown

- *Member*, Research Ethics Committee (Animal sub-committee), The UWI, Mona Campus
- *Member (at Large)*, Council on Microbial Sciences, American Society for Microbiology (ASM)
- *Member*, Workload Policy Committee, The UWI
- *Member*, Covid-19 Emergency Management Committee, The UWI, Mona Campus
- *Independent Internal Examiner*, MSc Medical Microbiology report of Khamiya Henry (The UWI, St. Augustine)
- *Member*, American Society for Microbiology (ASM)
- *Staff mentor*, American Society for Microbiology (ASM)/UWI Student Chapter.
- *President*, WIGUT (Jamaica).
- *Associate Editor* in Infectious Diseases, Frontiers in Medicine, Microbiology and Public Health
- *Review Editor* in Infectious Diseases, Frontiers in Medicine, Microbiology and Public Health
- *Review Editor* in Antimicrobial Resistance, Frontiers in Antimicrobials, Resistance and Chemotherapy

Prof. Wayne McLaughlin

- Board member, Cannabis Licensing Authority (CLA)
- Board Member, Scientific Research Council (SRC)
- Board Member, International Centre for Nuclear Sciences (ICENS)
- Advisory Committee Member, National Commission on Science & Technology (NCST)

Prof. Dalip Ragoobirsingh

- Ministry of Health, Jamaica (MOH) – Panel member on Technical Advisory Committee, The Chronic Diseases and Injuries Unit updating the National Guidelines for the management of diabetes.
- Pan American Health Organization Special Technical Committee to revise and update the nutrient requirements and recommended dietary allowances (RDAs) for the populations in the English speaking Caribbean.

Prof. Maxine Gossell-Williams

- The University of the West Indies Representative for Ministry of Science Energy and Technology UNESCO's Global Observatory of Science, Technology and Innovation Policy Instruments (GO-SPIN) Mapping Project Working Group.
- Frontiers in Pharmacology – Special Topic Editor

Dr. Lauriann Young-Martin

- Co-Chair of the FMS Medicinal Cannabis/Psilocybin Research Group
- Member of the International Society to Advance Alzheimer's Research and Treatment

Dr. Carron Gordon

- Member and Ministry Leader, Christian Life Fellowship, Papine, Kingston
- Manuscript Reviewer: *Disability and Rehabilitation Journal*

Dr. Gail Nelson

- Member of the Philharmonic Orchestra of Jamaica (2013–to present) – Violist; Board of Management
- Member, UWI Classical and Jazz Ensemble (2015–to present)
- Member Board of Management of the Philharmonic Orchestra of Jamaica (2015–present)

Dr. C. Gordon, Dr. Gail Nelson, Dr. Sonja Williams & Mrs Kathryn Satchell

- Offered physiotherapy services along with 8 PT students, in the Interprofessional Health Fairs offered by the Faculty of Medical Sciences at 3 locations, in March and July 2023; Christian Life Fellowship, Papine, Kingston; FMS Teaching and Research Complex, Kingston and Petersfield, Westmoreland.

MEMBERSHIP IN LEARNED SOCIETIES

- Gail Nelson – Member: Jamaica Association of Sports Medicine
- Gail Nelson, Carron Gordon, Sonja Williams, Gillian Hudson – Members: Jamaica Physiotherapy Association
- Prof. Maxine Gossell-Williams – Executive Committee Member of North American Chapter of International Society of Pharmacovigilance.

AGILITY

INCOME GENERATION/FUNDING

Research Grants:

- **Badal Simone.** NIH, Fogarty International Centre Emerging Global Leader Award, “Novel Prostate Cancer Cell Lines to Address Prostate Cancer Disparity in Black Men.” **520,000 USD.** Principal Investigator. 2020–2025.
- **Badal Simone.** Pfizer, “Cancer Genome Cohort to promote health equity among patients of African ancestry: Characterization of genetic and molecular drivers.” **88,000 USD.** Principal Investigator. 2023–2025.
- **Badal Simone.** PCCTC, “Registry for Black men with advanced prostate cancer,” The International Registry in Men with Advanced Prostate Cancer (IRON-MAN).” **50,000 USD.** Principal Investigator. 2022–2027. Each patient recruited generates 2,100 USD for the project allowing it to be sustainable.
- **Badal Simone.** Chan-Zuckerberg, “The African Caribbean scNetwork,” 26, 220 USD. Principal Investigator. 2023–2025.

VISITORS TO THE DEPARTMENT

Professor Kathleen Norman from the Queens University, Ontario, Canada visited in November 2022 and February 2023 for partnership building, collaborative teaching, and research collaboration with the Section of Physical Therapy. These visits generated several initiatives: combined virtual classes between Mona and Queen’s University, seminars and virtual workshops (under the Theme: Best practices in Physical Therapy Education), Research collaboration, curriculum development.

Dr. Jeffrey Hartman from the University of Wisconsin, Madison, Wisconsin, USA visited for 3 days in May 2023 to explore opportunities for collaboration.

Dr. David Anekwe from the University of British Columbia, Canada: The External Examiner for the Final Professional Examination held in July 2023. He was a guest of the Section from June 30 to July 14, 2023.

CONDOLENCE

The Department of Basic Medical Sciences regrets to announce the passing of Ms. Chantal Marriott, Senior Laboratory Technologist in the Biochemistry Section. Ms. Marriott passed away on Sunday, July 23, 2023.