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THE UNIVERSITY OF THE WEST INDIES, MONA CAMPUS
UWI RESEARCH DAY 2026

Future-proofing Jamaica and the Caribbean:
Research for Resilience, Revenue and Regional Leadership

PRINCIPAL'S RESEARCH AWARDS

2024/2025

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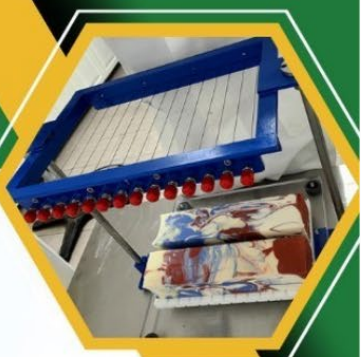

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PRINCIPAL'S MESSAGE

Principal's Research Awards 2026

Celebrating Excellence in Research

Today, we celebrate our outstanding researchers for once again providing new knowledge to advance the development of our society. Heartfelt congratulations, colleagues! You have made your university proud, and once again, we stand with you as you continue your outstanding work to advance the mission and vision of the Mona Campus and the wider UWI, a beacon of intellectual excellence in our Caribbean region.

It is from these research outputs that The UWI has maintained its high reputation for academic excellence and continues to rise in global university rankings. Your outstanding performance over the last academic year has truly improved the quality of our research output and our teaching and learning activities on the campus and, as such, advanced our competitive position in the higher education marketplace. I celebrate with you today and thank you for the inspiration you have provided to our community of scholars, especially our younger scholars who are looking for good examples to follow in their pursuit towards generating outstanding scholarship to advance local, regional, and global development.

Research Day 2026 takes on special significance as we roll out a new model for the award of prizes. Critically, this year, we will award our graduate students for their work in the research arena. This is important as we mould future scholars to build on the work done before them while finding ways to modernise the institution so that it becomes fit for purpose for contemporary times. The award for best doctoral dissertation and the recognition of the supervisor's role in the process will no doubt be a strong motivation for the institutional architecture around the research process as well. Further, we have instituted the Campus award as separate from the Faculty awards in order to bring parity to the vagaries in the research process across Faculties. These innovations to the 2026 awards, I am sure, will enhance the rigour of the selection process and so uphold the high-quality standards of the Research Day award activities.

This year, we celebrate over 50 members of our community who are being awarded in various categories for their outstanding work. Award categories range from publications in highly impactful and rigorous publication outlets, such as books, book chapters, journals, and other outlets that meet the strictures of high academic standards, to delivering on projects that have generated significant income for the Campus over the year under review. The various categories for awarding our scholars, as depicted in the booklet, were carefully chosen to capture the value of the work which we continue to deliver at The UWI Mona. These research outputs were not generated merely to satisfy our intellectual curiosity; they are geared towards solving major development problems to assist with the advancement of our society and changing the lives of citizens in a positive way. This is research for relevance, resilience, and regional leadership.

Densil A. Williams
Pro Vice-Chancellor and Principal

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UWI Mona
Principal's Research Awards 2026
(2024/2025 Publications)

CAMPUS AWARDS

CAMPUS AWARDS

Most Outstanding Researcher

Prof. Ina Vandebroek, Caribbean Centre for Research in Bioscience (CCRIB)
Faculty of Science and Technology

Professor Ina Vandebroek is the recipient of this year's Campus Award for the Most Outstanding Researcher for 2024/2025 in recognition of her exceptional scholarly productivity, global research leadership, and tangible impact on science, society, and environmental sustainability. During the review period, she produced a distinguished body of peer-reviewed research that significantly advanced ethnobotany, biocultural heritage studies, and conservation science. Her publications include high-impact journal articles where she frequently served as senior or conceptual lead author, such as the influential paper, "Repositories of Biocultural Diversity: Toward Best Practices for Empowering Ethnobotany in Digital Herbaria", which not only received international attention but also led to an invitation from the Royal Botanic Gardens, Kew to speak at the prestigious State of the World's Plants and Fungi Symposium. She also authored an important editorial on ethical accountability in ethnobotany that is shaping global discourse on equity and integrity within the discipline. In addition, she collaborated on impactful empirical studies on culturally significant Caribbean medicinal plants and co-edited an interdisciplinary volume on traditional knowledge and food activism, further demonstrating scholarly breadth and leadership.

Her outstanding leadership was further recognised through two Springer Nature Editor of Distinction Awards in 2025, acknowledging her exceptional work as Editor-in-Chief of *Economic Botany*. Managing approximately 200 manuscripts annually and guiding a global editorial team, she has upheld rigorous scientific standards while advancing critical conversations on decolonising science, traditional knowledge rights and ethical publishing.

Professor Vandebroek's research excellence is also demonstrated through competitive international funding and collaborative partnerships. As Principal Investigator, she leads funded projects from the National Geographic Society and the Mohamed bin Zayed Species Conservation Fund, alongside serving as an international collaborator on a National Science Foundation initiative on biodiversity. Her research contributes directly to national and regional sustainability goals. During the academic year, she completed the International Union of Nature (IUCN) conservation assessments for Jamaican plants, providing baseline data for biodiversity planning and conservation action. She also advanced regional collaboration by brokering a Memorandum of Understanding between The UWI Mona and a Brazilian university, supporting a Latin American and Caribbean Consortium in Ethnobiology and Conservation.

She is the Graduate Coordinator of The UWI Mona's pioneering MPhil-PhD programme in Ethnobotany and Ethnobiology and, as a supervisor, she is shaping the next generation of regional scientists and supporting advanced research on women's health, culinary innovation, and chronic disease treatment. She also engages diverse publics through cultural outreach initiatives, including leading an ethnobotanical hike and delivering a keynote lecture at the 26th Indigenous Plant Use Forum (IPUF) in South Africa (August 2024), a respected gathering of researchers, Indigenous leaders, conservation practitioners, and policymakers.

Collectively, Professor Vandebroek's scholarly excellence, leadership, international recognition, societal relevance, and measurable research impact exemplify the highest standards of academic achievement, making her a deserving recipient of the Most Outstanding Researcher Award for the 2024/2025 Academic Year.

Prof. Ina Vandebroek is professor of Ethnobotany, studying Caribbean communities' traditional knowledge of plants for health, food, culture, and nature-based livelihoods.

CAMPUS AWARDS

Best Early Career Researcher

Dr. Jayaka Campbell, Physics
Faculty of Science and Technology

Dr. Jayaka Campbell's work sits at the intersection of climate science, renewable energy, and infrastructure resilience, with a strong focus on the needs of Small Island Developing States. During the 2024/2025 academic year, his research activity reflected both sustained productivity and clear real-world impact.

He co-authored three peer-reviewed journal articles, including a contribution to the Bulletin of the American Meteorological Society's State of the Climate 2024, the leading global climate assessment used by scientists, policymakers, and international agencies. As a contributing author to the Caribbean region's chapter, Dr. Campbell helped document record-breaking regional temperatures, providing an evidence base that directly supports climate policy, planning, and adaptation efforts. His research portfolio also includes a PLOS ONE publication examining the implications of solar radiation modification for Caribbean renewable energy systems, as well as applied work on Jamaica's nocturnal cooling potential and its relevance for sustainable building and agricultural practices.

A central feature of Dr. Campbell's recent work has been his role as Scientific Lead on the Jamaica Systemic Risk Assessment Tool (J-SRAT). Developed in collaboration with the University of Oxford and the Government of Jamaica, J-SRAT has moved beyond theory into active use, informing national infrastructure investment and climate resilience planning. The tool's effectiveness was underscored during Hurricane Melissa in 2025 when areas identified as high-risk experienced severe impacts, validating its predictive and practical value.

His expertise has also contributed to regional technical assessments of climate vulnerability in the electricity sectors of Dominica, Saint Lucia and Suriname, and to international rapid-response climate attribution research following Hurricane Melissa. This work informed discussions on loss and damage at COP30 (30th meeting of the Conference of the Parties) and received wide international media coverage, reinforcing the relevance of Caribbean-led climate science on the global stage.

Alongside his research, Dr. Campbell is committed to capacity building and mentorship. He supervises graduate research across physics and renewable energy, provides direct financial support to students in need, and has played a key role in strengthening and expanding The UWI's MSc Renewable Energy programmes. Collectively, his work reflects a consistent focus on rigorous science, applied outcomes, and long-term benefit to the region.

Most Outstanding PhD/Doctoral Researcher and Supervisor

Student: **Dr. Taja Francis**, Supervisor: **Prof. Helen Baker-Henningham**

Caribbean Institute for Health Research

Faculty of Medical Sciences

Thesis Title: The Development, Implementation and Evaluation of the Irie Homes Toolbox: A Universal Violence Prevention Program

This PhD thesis used a mixed-methods, multi-phase approach to develop, evaluate, and adapt an early childhood parenting programme aimed at preventing violence against children in Jamaica. The research began with the development of the Irie Homes Toolbox, a parenting programme for caregivers of children aged 2–6 years. The programme was designed using evidence from effective international parenting interventions, behavioural theory, and formative research involving Jamaican parents and preschool teachers. Multiple rounds of piloting were conducted in community preschools to ensure the content was culturally relevant, practical and acceptable, and that it could be delivered by existing preschool staff using minimal resources. The effectiveness of the programme was then tested in a cluster randomised controlled trial involving 18 preschools in inner-city communities. Outcomes were measured before and after the intervention using standardised questionnaires and direct child assessments. This design allowed the study to rigorously assess whether changes in parenting and child outcomes could be attributed to the programme. The trial found that parents who participated in the Irie Homes Toolbox used significantly less harsh physical and verbal punishment and spent more positive, engaged time with their children, than parents in the control group. Parents who attended more sessions showed greater reductions in violent discipline.

To understand how and why the programme worked, a qualitative study was conducted with parents and preschool teachers who participated in the intervention. Interviews showed that reductions in violence were driven by parents' learning alternative discipline strategies, improving their emotional self-regulation, strengthening parent–child relationships, and adopting a positive parenting identity as an "Irie parent". Continued use of violence was most likely when parents felt overwhelmed or were inconsistent in applying the strategies. Finally, the programme was adapted for virtual delivery during the COVID-19 pandemic and implemented nationwide with over 500 caregivers through government systems. A process evaluation showed that virtual delivery was feasible at scale, with high facilitator compliance and good caregiver engagement, though challenges such as internet connectivity and digital literacy highlighted the need for additional facilitator support.

This work is outstanding because it follows the full lifecycle of intervention development. Rather than transporting an existing programme, the researcher designed this parenting intervention grounded in evidence-based content and behaviour change principles and carefully adapted for the Jamaican context.

This thesis is supported by several publications, some of which are listed below:

Francis, T., Bowers, M., & Baker-Henningham, H. (2026). A feasibility trial of an early childhood, violence prevention, parenting program integrated into early childhood educational provision in Jamaica: A study protocol. Developmental Psychology, 62(1), 116–129. https://doi.org/10.1037/dev0001899

Francis T, Baker-Henningham H. Design and Implementation of the Irie Homes Toolbox: A Violence Prevention, Early Childhood, Parenting Program. Front Public Health. 2020 Nov 16;8:582961. doi: 10.3389/fpubh.2020.582961.

Francis, T. & Baker-Henningham, H. The Irie Homes Toolbox: A cluster-randomized controlled trial of an early childhood parenting programme to prevent violence against children in Jamaica. Children and Youth Services Review. 2021. 126: 106060. doi: 10.1016/j.childyouth.2021.106060.

Francis T, Dinarte-Diaz D, Powers S, Baker-Henningham H. The Virtual Irie Homes Toolbox: Adaptation and remote delivery of an early childhood, violence prevention, parenting programme in Jamaica. Journal of Research in Childhood Education. 2023. 38, Supp 1. S92-S111. doi: 10.1080/02568543.2023.2281560

Research Project Attracting the Most Research Funds

Dr. Jayaka Campbell[1], Dr. Jhordanne Jones[1], Dr. Sharon Bramwell-Lalor[2], Dr. Therese Ferguson-Murray[2], Prof. Tannecia Stephenson[1], Prof. Michael Taylor[1], Dr. Tamika Royal-Thomas[3]

[1]Physics; [2]School of Education; [3]Mathematics

Back row (left to right)**: Dr. Jhordanne Jones, Dr. Jayaka Campbell, Prof. Michael Taylor**
Front row (left to right)**: Dr. Tamika Royal-Thomas, Dr. Sharon Bramwell-Lalor, Dr. Therese Ferguson- Murray, Prof. Tannecia Stephenson**

The Climate STRIDES Project (Supporting, Transforming, Resilience, Innovation, Data, Education, and Sustainability)

Like many other Small Island Developing States, the Caribbean sits at ground zero of the climate crisis. From intensifying hurricanes, prolonged droughts, rising seas, and coastal erosion, the region faces climate impacts that could wipe out up to 3.6% of regional GDP. Yet infrastructure planners, policymakers, and water managers need current and locally relevant projections of changing rainfall patterns and storm intensity, but that information is not always easy to find. The Climate STRIDES - Systems, Techniques and Resources for Improved Decision-Making, Education and Sustainability - project aims to tackle this problem head-on. The Project, which began in October 2024, is funded by the Caribbean Development Bank through its Special Funds Resources under the Caribbean Action for Resilience Enhancement (CARE) Programme.

Climate STRIDES continues work that began with the landmark State of the Caribbean Climate Report (2020), which created a review document of authoritative works and recent studies on climate change, climate variability and climate impacts specific to the Caribbean. This update is expected to address an outstanding issue faced by many Caribbean countries - especially the smaller isles of the eastern Caribbean - that are often climatically diverse but too small to be adequately represented by the larger grids of generally available climate projections. Climate STRIDES builds on previous efforts by producing climate projections at much finer resolutions of 6 - 10 kilometres (5 times greater than previously available), using the latest global climate scenarios.

The Project seeks to use available data by developing statistical models to determine the expected impact of climate change on different sectors, including transportation and water. A pilot country study will explore both individual and combined climate events, with results stored in GIS-ready formats to support planning and policy development. Additionally, a unified web platform will host updated and historical Satellite Operations Control Center (SOCC) reports, model outputs, interactive maps, and climate knowledge products.

Beyond the scientific endeavours, Climate STRIDES also recognises that climate literacy must span generations, developing Caribbean-focused instructional materials for high schools - linking climate science to students' lived experiences - while using comics, storybooks and cartoons to translate complex climate concepts into engaging narratives for younger children. At its core, Climate STRIDES recognises that facing climate challenges requires information that is contextual, at the appropriate scales, and required levels of accessibility not only to experts but also to everyone, thereby supporting a more resilient and climate-smart Caribbean.

Most Impactful Research Project

Prof. Mona Webber[1], Prof. Dale Webber[2], Dr. Camilo Trench[2], Mr. Hugh Small[1], Mrs. Chauntelle Green Parkins[1], Ms. Patrice Francis[2], Ms. Le'Anne Green[2], Ms. Robyn Young[2]

[1]Life Sciences; [2]Centre for Marine Sciences
Faculty of Science and Technology

Back row (left to right)**: Prof. Dale Webber, Mr. Hugh Small, Ms. Patrice Francis, Dr. Camilo Trench**
Front row (left to right)**: Ms. Le'Anne Green, Prof. Mona Webber, Mrs. Chauntelle Green Parkins, Ms. Robyn Young**

Advancing Understanding of the Carbon Sequestration Role of Jamaica's Seagrass and Mangroves: Potential for Inclusion in Nationally Determined Contribution.

In 2024 Jamaica took the decision, despite being a developing country, to play its part in "global emissions peaking as soon as possible" (Article 4.1 of the Paris Agreement) by proposing a Nationally Determined Contribution (NDC) that for the first time included emissions from land use change and the forestry sector.

This provided opportunities for emissions reduction potential of natural systems to also be within the NDC. This expanded to include Blue-carbon systems, Jamaica's coastal plant communities. This meant that the country's latest NDC would approximately double in ambition. However, there was need to accurately quantify all forest types and wetland systems that could contribute to 'emissions removal' and to do so using global standard methods as developed by the Intergovernmental Panel on Climate Change (IPCC) for such inventories. The Centre for Marine Sciences (CMS) therefore partnered with the Pew Trust (MoU and grant agreement for J$ 34,051,600) and The Nature Conservancy (TNC) to develop the project "Advancing Understanding of the Carbon Sequestration Role of Jamaica's Seagrass and Mangroves: Potential for Inclusion in Nationally Determined Contribution (NDC)". The project commenced December 2023 and concluded in November 2025 and saw the CMS conducting sampling at representative mangrove forests and seagrass beds around Jamaica. Carbon stocks were determined as above- and below-ground living biomass, as well as soil/sediment carbon. Jamaica's mangroves were found to store 4,740,569.55 MgC and seagrasses stored 7,326,358.10 MgC. In partnership with The Nature Conservancy (TNC), the project was able to provide accurate 2024 updates of the extent of Jamaica's mangroves (11,978 ha) and seagrasses (55,678 ha). These values will facilitate accurate tracking of the changes in the extent of these systems, as targeted restoration activities are designed and ramped up.

This information formed part of Jamaica's National Determined Contribution (NDC3.0) report presented by Prime Minister Holness as required by the United Nations Framework Convention for Climate Change (UNFCCC) at the September 2025 New York meetings of the United Nations General Assembly (UNGA2025).

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FACULTY OF ENGINEERING

FACULTY OF ENGINEERING

Best Faculty Researcher

Dr Rakhee, Electronics Engineering

Dr. Rakhee was awarded the Best Researcher for the Faculty of Engineering in recognition of her impactful research contributions in the areas of artificial intelligence, deep learning, image processing, and intelligent transportation systems. During the 2024/2025 academic year, a notable achievement was her co-authored journal article, "Object Detection of Autonomous Vehicles for LiDAR Point Cloud using DBSCAN and Bounding Box". published in The International Journal of Computing and Digital Systems. This work addresses a critical challenge in autonomous vehicle technology - accurate object detection from LiDAR (Light Detection and Ranging), a prevalent sensor technology. By integrating advanced techniques such as Iterative Closest Point alignment, DBSCAN (Density-Based Spatial Clustering of Applications with Noise) clustering, and bounding box methods, the study proposes a robust framework that significantly improves object segmentation and detection accuracy in complex driving environments. The research offers practical solutions that enhance road safety, optimise sensor data processing, and guide future developments in intelligent transportation systems.

Complementing this work is her conference publication, "Herbal Species Identification using Deep Learning with Image Processing", presented at the 5th International Conference on Data Intelligence and Cognitive Informatics. This research demonstrates the effective application of deep convolutional neural networks for medicinal plant identification, achieving up to 99.25% accuracy using a hyperparameter-tuned Advanced Xception model. The study contributes to healthcare and pharmaceutical production by enabling accurate, automated identification of medicinal plants, therefore supporting traditional medicine systems.

Dr. Rakhee's research is characterised by its strong societal relevance and interdisciplinary scope, bridging engineering innovation with healthcare and smart mobility. Beyond publications, she remains actively engaged in collaborative research within the Faculty of Engineering and is preparing competitive grant applications in partnership with colleagues at The University of the West Indies. With a growing Google Scholar citation count and a record of Scopus-indexed outputs, her scholarly influence continues to expand.

Equally significant is her commitment to research mentorship. She actively involves undergraduate and postgraduate students in research projects, conference publications, and technical writing, fostering critical thinking, innovation and industry-ready skills. Through her leadership, collaboration, and focus on real-world impact, Dr. Rakhee's research efforts mark her as a deserving recipient of this award.

Dr. Rakhee holds the BTech (E & I), MTech (Computers) and PhD (Computers) degrees. She is currently working as Lecturer in the Faculty of Engineering, The UWI Mona Campus.

Best Research Publication

Dr. Leighton Ellis, Civil Engineering

Ellis, L. A., & Singh, E. C. (2025). Leadership development in civil engineering: Perceptions of leadership preparedness in Trinidad and Tobago. The West Indian Journal of Engineering, 47(2), 4–13. https://doi.org/10.47412/UYSC7563

Leadership responsibilities are increasingly placed upon engineers, yet they are often ill-prepared for these pivotal roles. Based on a recent study conducted in Trinidad and Tobago (T&T), this paper investigates the perceptions of engineers and leaders in civil engineering, with a focus on leadership preparedness and the resulting implications for leadership and management training. Responses were gathered from 114 engineers and engineering organisations using an online questionnaire.

The data underwent comprehensive qualitative (frequencies, percentages, means, and standard deviations) and quantitative analyses (grouping responses into categories and themes). It was found that: (i) a majority of participants perceived themselves to be only moderately prepared for leadership roles, either at the onset or during their current leadership tenure; (ii) the overwhelming consensus among participants highlighted the paramount importance of leadership training for engineers; (iii) participants expressed a strong inclination toward embedding leadership training within current engineering courses; and (iv) the majority of respondents conveyed optimism about the positive implications of increasing leadership and management training methods for engineers.

These findings have implications for advances in academia and industry, including organisations and professional engineering societies, in refining existing approaches to leadership preparation. The paper underscores the need for a more capable and influential cadre of civil engineering leaders by advocating for the integration of leadership preparedness into higher education and professional development in T&T and the wider Caribbean.

Dr. Leighton Ellis is a senior civil engineer and academic advancing resilient infrastructure, engineering education, and Caribbean-focused research through interdisciplinary leadership and professional practice.

Special Innovation Award

Dr. Sasha-Gay Wright, Biomedical Engineering

Low-Cost Computer Vision and Telemedicine System for Early Detection of Diabetic Retinopathy in Resource-Limited Caribbean Settings

Diabetic retinopathy is one of the leading causes of preventable blindness worldwide, and its impact is particularly severe in the Caribbean where diabetes rates are high and access to specialist eye care is limited. Many people only receive a diagnosis when vision loss has already begun, largely because routine retinal screening requires expensive equipment and trained specialists that are not readily available in rural or underserved communities.

This project was developed to address this urgent gap by creating a *portable, affordable, and easy-to-use telemedicine system* that allows early detection of diabetic retinopathy outside of traditional hospital settings. The goal is to bring screening closer to patients, thereby removing the requirement to travel long distances to access care.

The system uses a specially designed head-mounted device that works with a smartphone to capture images of the retina. The device is adjustable for different users, ensures proper alignment of the eye, and includes safety features to protect the patient during imaging. Once an image is captured, it is securely uploaded through a mobile application to an online platform where artificial intelligence software analyses the image. The system can identify and classify the different stages of diabetic retinopathy and send the results back in real time, allowing healthcare workers to decide whether a patient needs referral to a specialist.

In addition to eye screening, the system also measures key vital signs such as heart rate, blood oxygen levels, body temperature and blood pressure, using non-invasive sensors. This provides a more complete picture of a patient's overall health and supports better management of diabetes-related complications.

The innovation fills a critical gap by combining *low-cost hardware, artificial intelligence, and telemedicine* into one integrated solution tailored specifically for resource-limited Caribbean settings. It creates new knowledge by demonstrating how advanced diagnostic tools can be redesigned to be affordable, portable, and usable by non-specialist healthcare workers.

By improving early detection, reducing preventable blindness, and supporting more equitable access to healthcare, this project contributes directly to national and regional development goals. It has the potential to reduce healthcare costs, improve quality of life for people living with diabetes, and strengthen digital health capacity across the Caribbean.

Dr. Sasha-Gay Wright is a biochemist, cancer researcher, and engineering lecturer at The University of the West Indies, Mona. She teaches in the Biomedical Engineering programme and currently serves as Head of Programme for the English-speaking Caribbean's only undergraduate biomedical engineering degree.

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FACULTY OF HUMANITIES & EDUCATION

FACULTY OF HUMANITIES AND EDUCATION

Best Faculty Researcher

Dr. Bolapeju Agboola, School of Education

Dr. Bolapeju Agboola co-edited two books titled, *Planning Tools for Policy, Leadership and Management of the Educational Systems* and *Navigating Leadership and Policy Management in Education*. These books are innovative contributions of The University of the West Indies, presenting a compendium of twenty-two chapters from experts and professionals across the globe that delves into vital dimensions of education for national development. Contributions are from experts across disciplines, offer holistic perspectives on emerging technologies, educational planning, policy, leadership, industrial innovations, and sustainable development in education. The books address the pressing need to bridge gaps identified between the United Nations Vision 2030 targets, specifically sustainability goals 4, 5, 8 and 16, and the practical realities of planning, policy, leadership and management in achieving them, particularly in the Caribbean. They serve as relevant and practical manuals and reference guides for many audiences. Their real-world applications support proactive change and inspire improvements in education systems. Her research areas cover both national and international significance across educational contexts and often discuss explicitly how the findings can inform better decisions and promote further research, policy initiatives, or practice beyond the context in which the original work is undertaken. In addition, evaluation frameworks, planning and policy tools and models developed have fostered discussions among regional Ministries of Education and other Policy Boards on ways to strengthen the bridge between academic inquiry, leadership, and policy reform.

Through her research focus she enhanced the global visibility and reputation of The University of the West Indies as a data-driven research institution. In recognition of her research work, she has been honoured with invitations to deliver seminars, conferences, public lectures, faculty workshops, and policy roundtables at national, regional and international levels, including the Ministry of Education, Patterson Institute, and Africa-Forum on Religion and Government.

She currently serves as editor for the Journal of Education (Science Publishing Group) and IGI Global Scientific Publishing. She is a member of the United Nations Educational, Scientific and Cultural Organization -International Institute of Educational Planning, Technical and Vocational Education and Training Research Advisory Committee Board of Stakeholders, Jamaica.

Dr. Bolapeju Agboola is the supervisor of graduate research students and prides herself on her mentorship activities which include promoting their presentation of papers at conferences, symposiums, and publishing their work in refereed journals.

Dr. Bolapeju Agboola, a senior lecturer, researcher, and consultant with over 30 years of teaching experience and 40 published works

Best Research Publication

Prof. Carmel Roofe, School of Education

Roofe, C. (2024). Curriculum implementation Leadership and Equity in Education: Curriculum Struggles and Hopes in Jamaica during the Post-Independence Era (1st ed.). Routledge.

Curriculum Implementation Leadership and Equity in Education: Curriculum Struggles and Hopes in Jamaica during the Post-Independence Era makes a distinct and unique contribution to how curriculum is conceptualised and practised by addressing the longstanding issue of curriculum implementation and education equity. Considering the achievement of Sustainable Development Goal 4, the text examines a chronic problem that affects the outcomes of schooling across school systems and marginalised populations in countries across the globe.

In this text, curriculum implementation is deconstructed within the cultural historical colonial context of Jamaica and the attending sociocultural issues. These issues often impede quality outcomes regardless of the quality of the programme developed to address educational needs of students. By tracing national formal curriculum reforms implemented in Jamaica from its independence in 1962 to the latest national curriculum reform in 2016 from early childhood to secondary education, the text draws attention to endemic systems and structures of power and oppression such as Jamaica's dual education system that inhibits effective curriculum implementation.

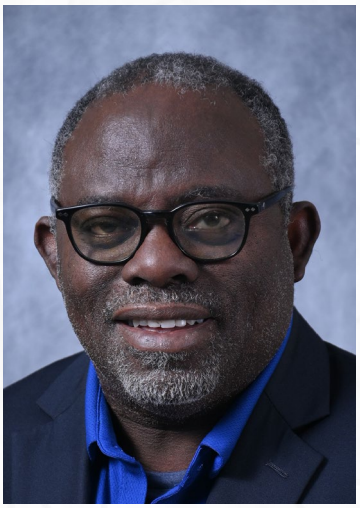
Grounded in quantitative and qualitative research conducted across 50 schools in a range of urban and rural school contexts, the text offers curriculum implementation leadership as one possible solution for addressing curriculum implementation and education equity issues. The text also draws on themes such as implementation science and Caribbean orality in relation to people, place and process, to promote the concept of curriculum implementation leadership as a required response to addressing educational equity issues. The text thus concludes by offering a framework for curriculum implementation leadership and a nuanced understanding of leadership that showcases how a range of in-school and out-of-school education stakeholders can be involved in leading curriculum implementation if provided with the appropriate domain-specific influencing behaviours and strategic approaches. The framework thus blends both research and practice to offer an evidence-based approach that underscores the value of domain-specific leadership for impacting curriculum implementation. Such evidence-based approaches if considered and utilised at both the educational and curriculum policy and practice levels will change the landscape of not only how curriculum is implemented but also how educational programmes are implemented. Further, it is important to note that while the text draws on empirical data from different schools across urban and rural areas of Jamaica it also locates Jamaica's narratives within the larger contexts of internationalisation and decolonisation movements of the field of curriculum studies. Such perspectives which include those unheard or unknown of on the subject are significant in enriching and extending the conversation on curriculum.

Prof. Carmel Roofe is professor of Curriculum Studies in the School of Education at The University of the West Indies, Mona.

Faculty Research Project Attracting the Most Research Funds

Dr. Dave Gosse, Dr. Julian Cresser
Institute of Caribbean Studies; History and Archaeology

Title: "Analysing the Ministry of the Moravian Church in the Caribbean, 1732-1860s".



Increased calls for restorative justice have become more frequent in both public and academic settings across the Americas and Europe given the long-term impact of enslavement and colonialism on Africans and Indians. The European churches which impacted the Americas have not been exempted from such reparatory calls. As such, the Unity Board of the Moravian Church in Europe, have engaged the Department of History & Archaeology and the Institute of Caribbean Studies, The UWI, Mona, to evaluate its impact in the Caribbean.

Duration of the Project: May 2025 to January 2027

The research analyses the theology, methodologies, business ventures, and global impact of the Moravian Church within the British, Dutch and Danish Caribbean from 1732 to the 1860s.

Numerical Success: African enslavement was critical to Moravian success as the church's missionaries served as 'chaplains' on many plantations and were thus effective in converting the enslaved population. This success led to the planter class in the Caribbean courting the missionaries to establish more mission stations on other plantations.

Strategy: The missionaries *surreptitiously targeted marginalised groups* (enslaved Africans, Indians, and freed Africans), which created a niche away from direct competition with other denominations. Their missionary strategy was to *live on plantations*, which allowed them direct access to the enslaved population. They served as de-facto staff within the plantation's management hierarchy, working closely with attorneys and overseers to schedule access for spiritual enrichment. This required the *full support of plantation management*; the missionaries avoided establishing bases where management was hostile or critical.

Educational Expansion: The end of slavery in the British Caribbean (1834/1838) led to a decline in church membership in some islands (e.g., Antigua, Danish West Indies) as freed Africans exercised their independence and moved away from missionary control to focus on economic survival. To maintain relevance, the Moravian Church cemented its role through educational expansion. Missionary administrators, seeing the continued lack of educational facilities and training for freed Africans, viewed formal education as the new road map. The Moravians escalated the building of educational institutions to become one of the *premier religious institutions* to establish primary, secondary and tertiary education in the Caribbean.

Dr. Dave Gosse is a senior lecturer in, and Director of the Institute of Caribbean Studies, and the author of two books.

Dr. Julian Cresser is a lecturer in, and Head of the Department of History and Archaeology, and specialises in Sports and Caribbean Social History.

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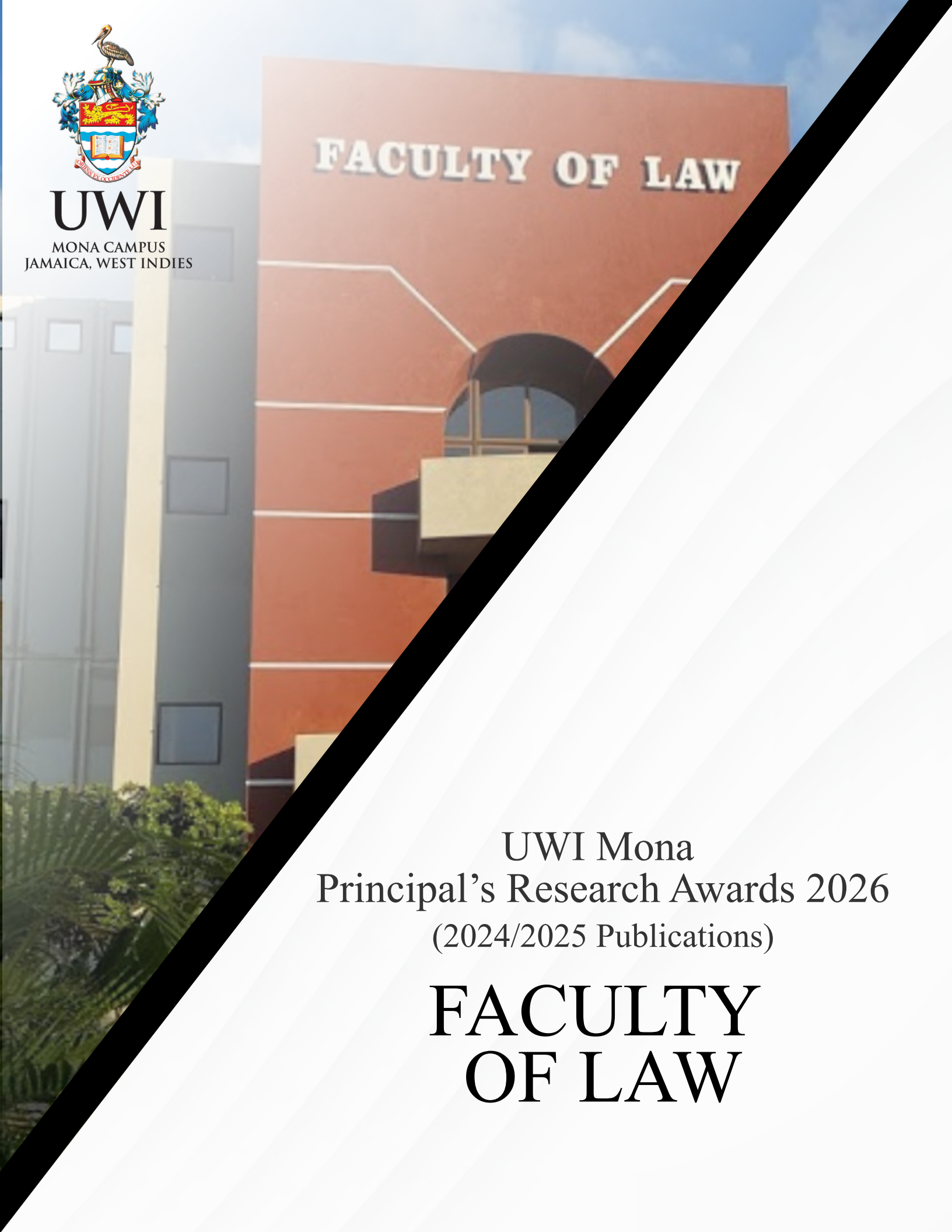


UWI Mona
Principal's Research Awards 2026
(2024/2025 Publications)

FACULTY OF LAW

FACULTY OF LAW

Best Faculty Researcher

Dr. Natalie Corthésy, Faculty of Law

Dr. Corthésy is first author and co-editor of the book entitled *Intellectual Property and Cannabis*. This pioneering book explores the relationship between intellectual property and cannabis. Contributing authors demonstrate the intricate contradictions between positive intellectual property protection and prohibitive cannabis regulation, the socio-economic and cultural development potential of the cannabis plant, its intersection with intellectual property rights, and the growth of the cannabis market. The book considers branding of cannabis with insights from trademark and geographical indications. It examines the impact of copyright, image rights, packaging, patents and plant varieties. Practical case studies covering the Jamaican, Canadian, Dutch, and Uruguayan scenarios are analysed, followed by an assessment of the links between cannabis and traditional knowledge, as well as economic, historical, and sociological perspectives on the nexus between intellectual property and cannabis. In her authored chapter entitled, "The Development of an intellectual property Protection Strategy for Jamaican Cannabis", she considers the status quo and gaps in the legal and policy framework that underpin the cannabis industry in Jamaica, and whether increased use of intellectual property protection mechanisms can provide the springboard needed to enable and support cannabis stakeholders in their quest for heightened economic growth and market sustainability.

Dr. Corthésy also authored a chapter entitled, "County names matter – Made in, Made of, Made by", in *The Future of Geographical Indications: European and Global Perspectives*, edited by Andrea Zappalaglio and Enrico Bonadio (Edward Elgar Publishing Cheltenham). The chapter reflects on the bold step of Jamaica to finally amending its own domestic legislation to protect its country name and, by extension, its national competitive identity.

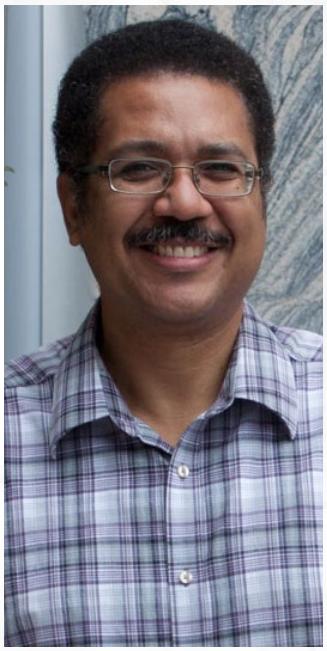
During the year 2024/2025 she shared her research expertise in intellectual property at local and regional conferences on Innovation in Intellectual Property, Colonial Copyright, Legislation and Implications for Adjudication, and Artificial Intelligence. She also succeeded in mentoring junior colleagues who have gone on to attain their own success in publications, intellectual property matters and international scholarships such as Chevening and Rhodes. Her research work has rekindled international collaboration between The UWI Mona and the British Institute of International and Commercial Law, resulting in the signing of a Memorandum of Understanding. The impact of her academic influence has fostered interdisciplinary collaborations between the Faculty of Law and the Department of Literatures in English, highlighting significant synergies between the work of the poet Claude McKay and colonial copyright.

Dr. Natalie Corthésy is a senior lecturer in the Faculty of Law where she teaches undergraduate and graduate courses.

Best Research Publication

Prof. Shazeeda Ali, Prof. Stephen Vasciannie,
Faculty of Law

Ali, S., & Vasciannie, S. (Eds.). (2024). Perspectives on Caribbean Law: A Compendium of Legal Essays. The University of the West Indies Press.



Perspectives on Caribbean Law: A Compendium of Legal Essays celebrates the 50th anniversary of the Faculty of Law at the University of the West Indies. This anthology of 12 insightful chapters traverses the broad scope of legal scholarship in the Caribbean, and provides a comprehensive view of national, regional and international challenges.The publication honours the legacy of the Faculty of Law at Mona ('MonaLaw') and serves as an essential contribution to Caribbean legal scholarship. This book delves into corporate law, tort law, international law, family law, and legal professional ethics. It explores fundamental Caribbean legal issues including CARICOM, Creole language, tourism, sports fairness, directors' duties, defamation, medical consent, the Caribbean appellate court system, and the Shiprider Agreement. Notable chapters in the book authored by current full-time academic staff of the Faculty of Law are highlighted below:

"The Eudaimonic Attorney – The Virtuous Pursuit of the Greater Good" by Shazeeda Ali adopts an ethical lens, based on Aristotle's concept of eudaimonia, to investigate the obligation of the legal profession to enhance the well-being of society.

"Caribbean Republicanism: Values and Vernaculars" by Celia Brown-Blake examines socio-legal questions associated with the use of the Creole language in the Caribbean legal system. In particular, the chapter seeks to situate the language question in the region within the domain of law and justice, against the backdrop of the debates surrounding republican status.

"Defamation Law as the Enforcement of Morals – The Case for Greater Use of the Moralist Approach" by Gabrielle Elliott-Williams examines cases emanating from the United States and the Caribbean on racial identification and gay mislabelling to illustrate that defamation law involves the enforcement of morals.

"Harm to Reputation is a 'Serious' Thing: Lessons for Jamaica from Recent Developments in Defamation Laws in Australia and in England and Wales" by Coleen B. Lewis, in addressing the presumption of harm and actionability of defamation claims, explores efforts to find a more reasonable approach to balancing the competing interests of protecting one's right to freedom of expression with another's right to protection of their own reputation.

"Shiprider Reconsidered – Jamaican Jurisdiction over Maritime Drug Trafficking" by Stephen Vasciannie provides insights into jurisdictional issues for Jamaica, with special reference to the United Nations Law of the Sea Convention. The chapter focuses on the bilateral maritime treaty, the 'Shiprider Agreement', that was designed to tackle the intractable problem of unlawful drug shipments in the Caribbean Sea.

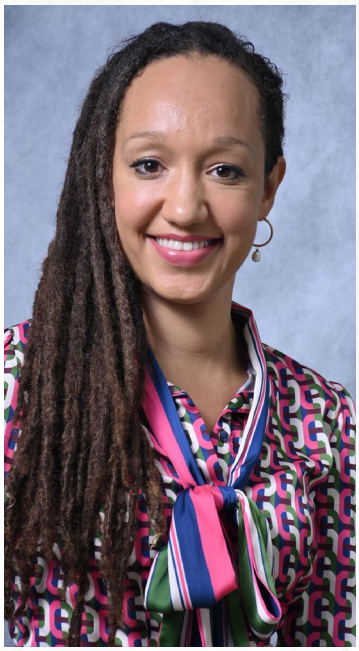
Professor Shazeeda Ali is dean at the Faculty of Law and teaches LAW3660, Caribbean Securities Regulation.

Professor Stephen Vasciannie is a professor of International Law at the Faculty of Law. He teaches LAW2310 Public International Law I, and LAW6300 Advanced International Public Law, undergraduate and graduate courses respectively.

Special Innovation Award

Dr. Natalie Corthésy, Dr. Yentyl Williams,
Faculty of Law

Corthésy, N., Bonadio, E. & Williams, Y. (Eds.). (2025). Intellectual property and cannabis. Edward Elgar Publishing.



This pioneering book explores the relationship between intellectual property and cannabis. Expert scholars from across the globe reflect on the legal, cultural, and socio-economic significance of cannabis, addressing the difficulties of adapting legal frameworks to this unique and multifaceted product. The editors, like masters of weaving, combine four distinct threads to create a fascinating tapestry on cannabis.

Evidence of the approach ethos of the editors and contributing authors is that the reader can start anywhere in the volume, following a particular interest or an interest heading, but will continue reading it as one whole book. The authors have read each other's chapters; there are cross-references; social and economic considerations are raised in the more practical chapters; and practical points are highlighted where the focus is historical, social, or economic. The approach is interdisciplinary and comparative, and the diversity of topics and authors comes together as a rich tapestry to be thoroughly enjoyed by practising lawyers, academics, intellectual property students, and a broader audience that will be attracted by the currency of the topic.

Chapters delve into key issues at the intersection of intellectual property and cannabis, from branding and packaging to social equity concerns surrounding the rapid growth of the cannabis market. It is divided into four parts. Part I considers branding of cannabis, with insights from trademark and geographical indications analyses. Part II expands, with chapters on copyright, image rights, packaging, patents, and plant variety rights. Part III is then dedicated to practical case studies covering the Jamaican, Canadian, Dutch, and Uruguayan scenarios. The concluding Part IV broadens the focus of the book to consider developmental, economic, historical, and sociological aspects.

Contributing authors demonstrate the intricate contradictions between positive intellectual property protection and cannabis regulation, drawing on case studies from jurisdictions where the product is legalised to varying degrees, including Canada, Jamaica, Uruguay, and the Netherlands. Covering different plant varieties, moral rights, and links between cannabis and traditional knowledge, this incisive book highlights the challenges of harmonising global cannabis laws while balancing isssues of innovation and tradition.

This book is an essential read for students and academics in intellectual property law, pharmaceutical law, innovation and economics. It is also an invaluable toolkit for policymakers in governments and tribunals, as well as commercial entrepreneurs.

Dr. Natalie Corthésy is a senior lecturer at the Faculty of Law. She teaches both undergraduate and graduate courses.

Dr. Yentyl Williams is a lecturer at the Faculty of Law. She teaches LAW1231 Legal Methods, Research & Writing and LAW6207 Geographical Indications in the Global Market.

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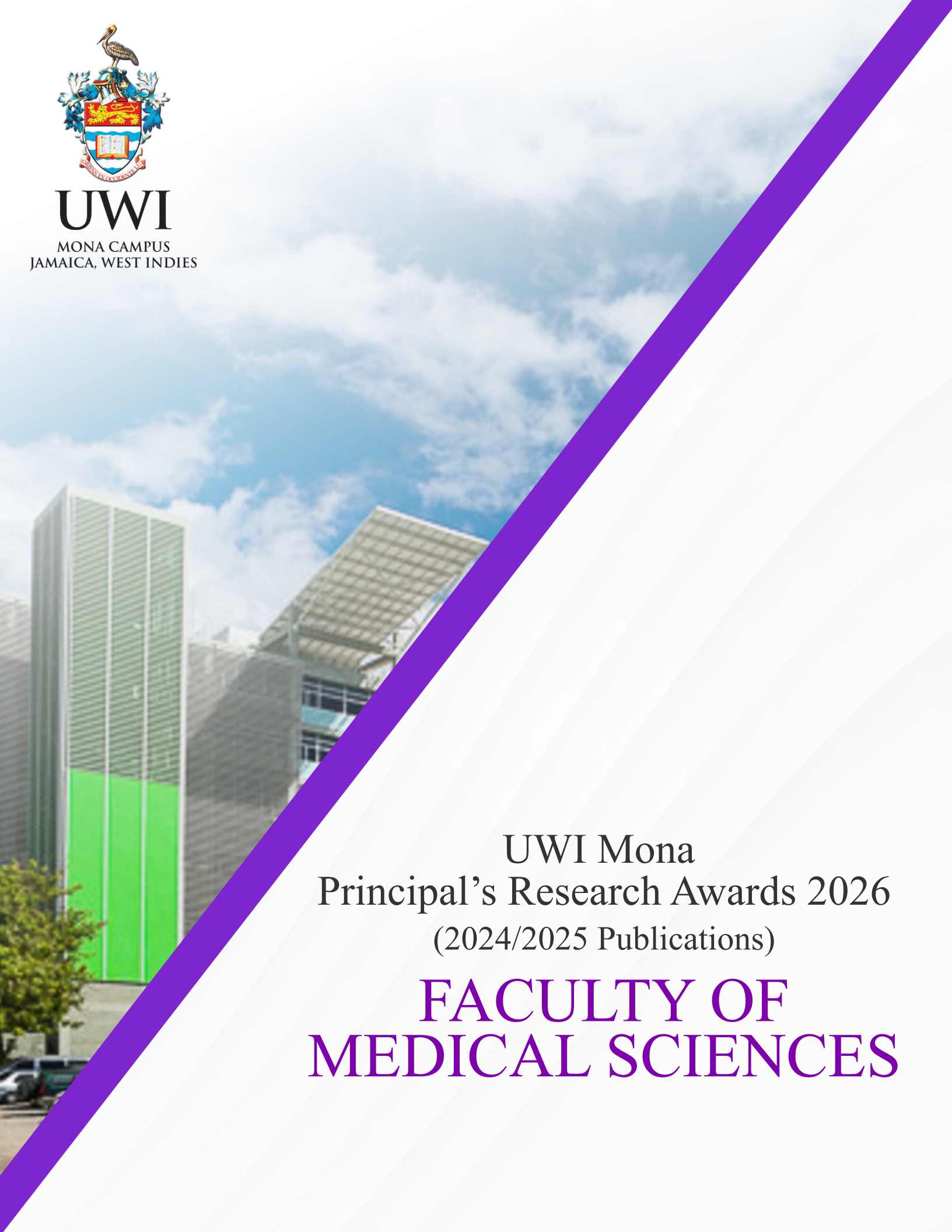

UWI Mona
Principal's Research Awards 2026
(2024/2025 Publications)

FACULTY OF MEDICAL SCIENCES

FACULTY OF MEDICAL SCIENCES

Best Faculty Researcher

Dr. Jonathan Ho, Medicine

In recognition of an exceptional and sustained record of scholarly productivity, research leadership, and international impact, particularly within the field of dermatology in under-served populations, Dr. Ho was selected as Best Researcher for the Faculty of Medical Sciences. During the academic year, he authored four peer-reviewed articles, delivered seven conference presentations at national, regional and international meetings, and advanced five competitive research grants currently in progress. His work demonstrates both depth and relevance, with a strong focus on dermatologic conditions affecting populations in the Caribbean and individuals with skin of colour.

A highlight of the year was the publication of his full-length original research article in the Journal of the American Academy of Dermatology, the highest-impact journal in the specialty. This landmark study on physiologic volar melanotic macules addressed a common yet under-recognised pigmentary variant in individuals with skin of colour and has already influenced clinical practice. The paper received international attention, being featured in multiple journal watch and update articles and incorporated as a new diagnostic entry into VisualDx, a widely used resource text. Additional publications during the year included work on high-risk pathologic features of acral melanoma in a Jamaican population, educational needs of Caribbean dermatologists, and a comprehensive review of fluoroquinolone use in dermatology.

His research excellence has been recognised through multiple prestigious awards. He received the 2025 International League of Dermatological Societies "Young Dermatologists International Achievement Award", an honour conferred biennially to one recipient per global region for outstanding contributions to international dermatology. He was also named an inaugural "TouchDERMATOLOGY Future Leader in Dermatology", acknowledging his potential to shape the future of the field. Regionally, he received the Caribbean Dermatology Association "Apple Award for Best Research Presentation" in 2024 and again in 2025.

Beyond publications, he has demonstrated strong research leadership through securing and advancing multiple grants, including a near-complete pilot clinical trial investigating a natural product for superficial fungal infections with promising preliminary results. He is also deeply committed to mentorship and capacity building, serving as Chief Supervisor for four and Co-supervisor for three graduate students. His frequent invitations to deliver lectures locally and internationally further underscore the significance and global relevance of his work.

Dr. Jonathan Ho is a lecturer at the Faculty, teaching at both undergraduate and postgraduate levels.

Best Research Publication

Ms. Shanice Redman[1], Ms. Keisha Francis[1], Dr. Jerome Walker[1], Dr. Tamara Thompson[2], Ms. Heather Phillips[2], Prof. Joshua Anzinger[1]

[1]Microbiology; [2]Medicine

Ms. Shanice Redman

Dr. Jerome Walker

Dr. Tamara Thompson

Ms. Heather Phillips

Prof. Joshua Anzinger

Redman, S. A., Perez, L. J., Forberg, K., Francis, K., Walker, J. P., Thompson, T. K., Phillips, H., Cloherty, G. A., Berg, M. G., & Anzinger, J. J. (2024). Dengue Virus Serotype 3 Origins and Genetic Dynamics, Jamaica. Emerging Infectious Diseases, 30(10), 2149–2154. https://doi.org/10.3201/eid3010.240170

Dengue is endemic to Jamaica, periodically causing major epidemics, yet genomic sequencing is not typically done. This study evaluated the circulating strains and origin of dengue virus serotype 3 in Jamaica during the 2019 dengue epidemic, one of the largest outbreaks in Jamaican history. Genomic analysis of the Jamaican strains showed that genotype III of dengue virus serotype 3 was responsible for the 2019 dengue epidemic and was introduced into Jamaica from Asia, most likely in 2014, several years prior to the first detection of the virus in 2016. Analysis of mutations within the genome suggested immune evasion of the virus, likely contributing to the 2019 dengue epidemic. This study demonstrates the usefulness of dengue virus genomic sequencing, a technology that should be considered for routine national dengue surveillance.

Ms. Shanice Redman is a postgraduate student at The UWI Mona and global infectious diseases scholar.

Ms. Keisha Francis is Chief Medical Technologist of the Virology Section of The UWI Mona Department of Microbiology. (Photo not displayed above)

Dr. Jerome Walker is a lecturer at The UWI Mona, UHWI Consultant Microbiologist and global infectious diseases scholar.

Dr. Tamara Thompson is a lecturer at The UWI Mona and UHWI Infectious Diseases Consultant.

Ms. Heather Phillips is a research nurse at The UWI Mona.

Prof. Joshua Anzinger is professor of Virology and Head of Department of Microbiology at The UWI Mona.

Faculty Research Project Attracting the Most Research Funds

Prof. Trevor Ferguson, Dr. Novie Younger-Coleman, Dr. Shelly McFarlane

Caribbean Institute for Health Research (CAIHR)

CAIHR Secures Major Funding to Lead Jamaica Health and Lifestyle Survey IV

The Caribbean Institute for Health Research (CAIHR), recognised as a regional Centre of Excellence at The UWI Mona, continues to advance high-quality research that informs health policy, programme development, and health care delivery. A team of investigators from CAIHR Mona, led by Prof. Trevor Ferguson, Dr. Novie Younger-Coleman and Dr. Shelly McFarlane, has received a research contract valued at JA$139 million. Funded through the Ministry of Health and Wellness (MOHW) by the InterAmerican Development Bank (IDB), the contract supports the implementation of the fourth Jamaica Health and Lifestyle Survey (JHLS IV). The initiative builds on the pioneering work of Professor Emeritus Rainford Wilks, founding director of CAIHR's Epidemiology Research Unit, who served as principal investigator for JHLS I, II and III.

JHLS IV aims to provide updated national data on noncommunicable diseases (NCDs), their risk factors, and related health conditions. Key objectives include estimating the prevalence of NCDs, injuries, mental health conditions, sexually related conditions, and COVID-19 seropositivity; assessing social and behavioural determinants of health; evaluating gender specific issues; measuring awareness and control of major cardiovascular risk factors; and reviewing public knowledge and use of national health policies. Following delays caused by Hurricane Melissa in October 2025, data collection began in January 2026. Recognising the hurricane's widespread impact, the team incorporated a special module assessing its effects on health, especially mental health. The survey will gather data from 4,704 Jamaicans aged 15 years and older through interviewer administered questionnaires on the REDCap platform, along with physical measurements and blood and urine samples. Analysis will produce national and subgroup estimates across gender and sociodemographic categories.

JHLS IV introduces several new elements, including COVID-19 related data, enhanced mental health screening, and the FAO diet quality and food frequency questionnaires. These additions will enable international comparisons and strengthen opportunities for global research collaboration.

The research team includes Trevor S Ferguson, Novie Younger-Coleman, Shelly McFarlane, Karen Webster-Kerr, Marshall Tulloch-Reid, Nadia Bennett, Natalie Guthrie-Dixon, Jennifer Knight-Madden, Monika Asnani, Georgiana Gordon-Strachan, Colette Cunningham Myrie, Tamara Thompson, Andriene Grant, Lori-Ann Fisher, Terry Baker, and Euette Mundy-Parkes (JHLS IV National Coordinator).

Prof. Trevor Ferguson is professor of Epidemiology and Internal Medicine and Director, the CAIHR-Epidemiology Research Unit. **Dr. Novie Younger-Coleman** is senior Lecturer at the CAIHR-Epidemiology Research Unit and has a PhD in Applied Statistics. **Dr. Shelly McFarlane** is senior Lecturer at the CAIHR-Tropical Metabolism Research Unit and has a PhD in Epidemiology.

Special Innovation Award

Dr. Taja Francis, Prof. Helen Baker-Henningham

Caribbean Institute for Health Research (CAIHR)

The Virtual Irie Homes Toolbox: Adaptation and Remote Delivery of an Early Childhood, Violence Prevention, Parenting Program in Jamaica.

During the COVID-19 pandemic, rates of violence against children increased globally as families were confined at home and parents faced heightened stress and uncertainty. This created an urgent need for continued parental support. This innovation involved adapting the proven, culturally-grounded, face-to-face parenting programme, the Irie Homes Toolbox to a virtual format. Government field officers from the Early Childhood Commission were trained and supported to deliver the intervention to parents online. The Virtual Irie Homes Toolbox combines facilitator-led, interactive, virtual group sessions with WhatsApp and SMS messaging, alongside access to a data-free mobile application.

With funding from the World Bank, the programme was evaluated through a randomised controlled trial with 1,113 caregivers across Jamaica. The virtual Irie Homes Toolbox was delivered by 28 Early Childhood Commission field officers to 557 caregivers assigned to the intervention group. Weekly record forms were collected, and in-depth interviews with Early Childhood Commission officers conducted to identify implementation enablers, barriers, and contextual factors influencing delivery quality and engagement. Phone interviews with participants gave data on participant engagement with messaging platforms.

Officer compliance exceeded 95%, and implementation quality was rated as 'acceptable' to 'good' across most domains. Engagement was further supported through high uptake WhatsApp/SMS messaging, demonstrating the feasibility of delivering complex parenting content using low-cost digital platforms. Importantly, the virtual intervention led to significant reductions in caregivers' violence against children with benefits sustained at 9th-month follow-up.

Challenges encountered during virtual delivery directly informed programme innovation. These challenges included technological problems for both facilitators and participants, relatively low attendance at virtual sessions by participants and limited engagement with the WhatsApp/SMS applications. To address these challenges, the programme now includes content using other modes of delivery (face-to-face session, virtual sessions and short video clips sent via WhatsApp). Finally, the researchers have used the lessons learnt to design a 'light touch' school-wide intervention involving WhatsApp messaging to promote positive parenting strategies on a wide scale. Process evaluation from Early Childhood Commission field officers showed that the interactive, participatory training methods, the fully-scripted session guides and the provision of all necessary materials were critical for maintaining the quality and fidelity of the intervention.

The Virtual Irie Homes Toolbox has strong potential for wide dissemination. It is designed for delivery through existing government systems. Programme materials are low-cost, modular and can be adapted for use in other settings.

Dr. Taja Francis is a lecturer at CAIHR specializing in interventions to prevent violence against children and promote early childhood development.

Prof. Helen Baker-Henningham is a Visiting professor at the Caribbean Institute for Health Research at The UWI Mona and leads the Irie Toolbox Team

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Principal's Research Awards 2026
(2024/2025 Publications)

FACULTY OF SCIENCE AND TECHNOLOGY

FACULTY OF SCIENCE AND TECHNOLOGY

Best Faculty Researcher

Prof. Ina Vandebroek, Caribbean Centre for Research in Bioscience (CCRIB)

Understanding Plants, Traditional Knowledge, and Ethics in a Changing World

Prof. Vandebroek's academic publications for 2024/2025 explored Caribbean traditional plant knowledge for community health, food and livelihoods, how this knowledge is recorded in herbaria and research publications, and how ethical collaboration with indigenous and local communities can be strengthened. As museums and herbaria digitalise millions of plant specimens, traditional knowledge associated with these plants (including uses, local names, and management practices) is becoming more accessible but also more vulnerable to misuse and misinterpretation.

One study assessed how much ethnobotanical information exists in digital herbarium collections worldwide and showed that, although it represents a small proportion of records, it still amounts to hundreds of thousands of specimens. The paper on "Plants, People, Planet" calls for coordinated guidelines to ensure this knowledge is shared ethically and in ways that respect and benefit the communities from which it originates.

A publication in *Economic Botany* focused on research ethics. It argues that working with indigenous and local communities requires more than formal institutional ethics approval. Ethical research must also respect cultural protocols, involve communities in decisions about research and publication, and document how consent and collaboration were achieved. The article encourages universities, researchers, and journals to adopt more transparent and reflective ethical practices, helping to build trust and long-term research relationships.

Two studies investigated medicinal plants used in Jamaica and the wider Caribbean region, including among Caribbean communities in New York City. This research was conducted by graduate student Ella Vardeman who earned her PhD from the City University of New York in 2025 and co-supervised by Prof. Vandebroek,. One study, published in Fitoterapia, examined "chewstick" (Gouania lupuloides), a plant traditionally used in Jamaica as a natural toothbrush and in root tonics. By combining community knowledge with laboratory analysis, the research identified compounds that inhibit harmful oral bacteria and showed that products sold commercially as chewstick are not always chemically identical, with implications for public health and consumer awareness. The second study, published in Journal of Ethnopharmacology, investigated "holy thistle" (Argemone mexicana), used in Caribbean women's health as a vaginal wash. Laboratory testing showed that traditional preparations can inhibit harmful vaginal bacteria without disrupting beneficial microbes, and linked these effects to differences in plant chemistry and preparation methods.

Finally, a co-edited volume in *Frontiers in Sustainable Food Systems* brought together ten international research papers on traditional knowledge and food, illustrating its importance for food sovereignty, sustainable livelihoods, and community-based governance in times of social and environmental change.

Prof. Ina Vandebroek is professor of Ethnobotany, studying Caribbean communities' traditional knowledge of plants for health, food, culture, and nature-based livelihoods.

Best Research Publication

Mr. Stephon De Souze, Dr. Victor Job, Dr. Mahesha Narayana

Mathematics

De Souze, S., Job, V. M. & Narayana, M. (2024). Mixed convective flow of water-based nanofluid and melting heat transfer in a partially porous annulus. Thermal Science and Engineering Progress, 54, 102881. https://doi.org/10.1016/j.tsep.2024.102881

In the submitted article, the authors considered the mixed convective flow of magnetite-water ferrofluid through a cylindrical annular partially porous region with an outer ice wall of finite thickness, bounded by a rigid wall of some known material. The inner cylindrical wall is heated owing to current (alternating current) carrying wires which in turn generate a non-uniform time-dependent magnetic field in accordance with Gauss' Law and Ampere's law for magnetism. Factors such as the cooling effect of the ferrofluid, the melting rate of the ice, heat loss to the surrounds and buoyancy were all considered in this study. Using the Brinkmann-Darcy-Forchheimer to model the flow through the porous medium and the Navier-Stokes equations to model the flow through the free flow region along with the relevant heat equations to describe the energy transfer, the generated system of equations was solved via a finite element/finite difference hybrid approach.

The major results from this study showed that decreasing the magnitude of current (decrease in the magnetic field), the initial ice wall thickness, nanoparticle volume fraction or increasing the heat generated by the inner cylinder causes an increase in the melting rate of the ice with the computed percentages (respectively) 12.7%, 72.1%, 4.7% and 22.1%. Other results showed that the cooling performance of the ferrofluid increases with increased magnetic field strength (5.2%), increased magnetite concentration (5.9%) and initial ice thickness (52.1%). The results alluded that the ferrofluid was more efficient at cooling the inner heated wall and less efficient at melting the outer cylindrical ice wall than the base liquid.

In order to ensure the accuracy of the developed numerical method and the results obtained, the algorithm was validated against published work in the literature, with a maximum relative error of 5%. This work has various applications, particularly in electrical engineering whereby large electrical currents are to be delivered to homes, businesses, or facilities in harshly cold environments. In these environments, the cold may damage the wiring. This work may aid in keeping the wiring safe as well as exploit the cooling efficiency of the ferrofluid to safely deliver these electrical currents.

Mr. Stephon De Souze is a full-time instructor and a PhD Candidate at the Department of Mathematics at The University of the West Indies, Mona Campus.

Dr. Victor Job is a lecturer in the Department of Mathematics at The University of the West Indies, Mona Campus.

Dr. Mahesha Narayana is a senior lecturer in the Department of Mathematics at The University of the West Indies, Mona Campus.

Faculty Research Project Attracting the Most Research Funds

Dr. Jayaka Campbell[1], Dr. Jhordanne Jones[1], Dr. Sharon Bramwell-Lalor[2], Dr. Therese Ferguson-Murray[2], Prof. Tannecia Stephenson[1], Prof. Michael Taylor[1], Dr. Tamika Royal-Thomas[3]

[1]Physics; [2]Mathematics; [3]School of Education

Back row (left to right)**: Dr. Jhordanne Jones, Dr. Jayaka Campbell, Prof. Michael Taylor**
Front row (left to right)**: Dr. Tamika Royal-Thomas, Dr. Sharon Bramwell-Lalor, Dr. Therese Ferguson- Murray, Prof. Tannecia Stephenson**

The Climate STRIDES Project

The Climate STRIDES Project (Supporting, Transforming, Resilience, Innovation, Data, Education, and Sustainability), funded by the Caribbean Development Bank with approximately USD 1.4 million over 28 months from November 1, 2024, aims to enhance climate resilience in the Caribbean by improving decision-making and promoting behavioural change. Component I expands data infrastructure, generates high-resolution climate data, and provides an online platform for regional access to reports and tools, while Component II develops educational resources for climate awareness, targeting vulnerable groups and secondary students. The project is led by the Climate Studies Group in collaboration with the Faculty of Humanities and Education, with Dr. Jayaka Campbell as Project Principal Investigator.

Dr. Jayaka Campbell, senior lecturer at The UWI Mona, is a computational physicist specialising in high-resolution climate projections for Caribbean nations.

Dr. Jhordanne Jones is a UWI-CCRIF Postdoctoral Research Fellow in Faculty of Science and Technology, focusing on the variability, predictability and change of atmospheric extremes.

Dr. Sharon Bramwell-Lalor is a senior lecturer in Science Education at the School of Education at the Mona Campus of The UWI.

Dr. Therese Ferguson-Murray is a senior lecturer in Education for Sustainable Development in the School of Education at the Mona Campus of The UWI.

Prof. Tannecia Stephenson is a professor of Climate Science and Deputy Dean of the Faculty of Science and Technology

Prof. Michael Taylor is a professor of Climate Science and Dean of the Faculty of Science and Technology

Dr. Tamika Royal-Thomas is a senior lecturer in Statistics and Mathematics in the Department of Mathematics at The UWI, Mona Campus.

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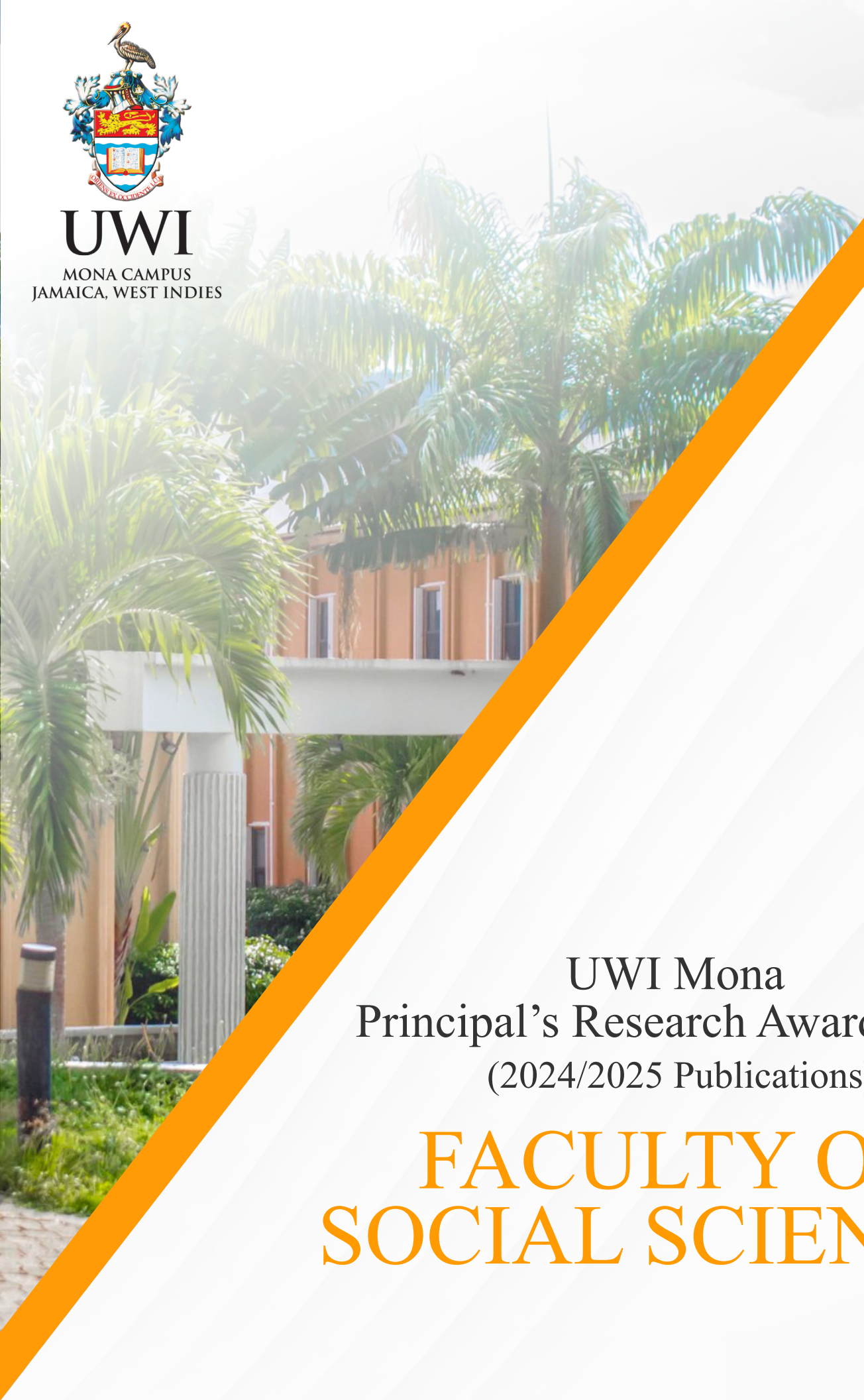

UWI Mona
Principal's Research Awards 2026
(2024/2025 Publications)

FACULTY OF SOCIAL SCIENCES

FACULTY OF SOCIAL SCIENCES

Best Faculty Researcher

Dr. Shinique Walters, Government

Walters, Shinique. Energy Poverty Among Women in Jamaica's Low Income Communities. Palgrave Macmillan, 2025. DOI: 10.1007/978-3-031-89079-6

Energy Poverty Among Women in Jamaica's Low-Income Communities, authored by Shinique Walters and published by Palgrave, examines the gendered dimensions of energy insecurity and its far-reaching social and economic consequences. The book addresses a critical area of need by exploring how limited access to affordable, reliable, and clean energy disproportionately affects women in marginalised Jamaican communities, shaping their daily living conditions, household responsibilities, safety, health, and opportunities for economic advancement.

The purpose of the book was to bring focused attention to the intersection of gender, poverty, and energy access—an understudied yet deeply influential aspect of development in the Caribbean. It fills a significant gap in both national and regional scholarship by providing empirically grounded, women-centered insights into how energy poverty is experienced and navigated. Through qualitative evidence and contextual analysis, the book generates new knowledge on the ways energy deprivation reinforces gender inequality and perpetuates cycles of low income and social vulnerability.

The contribution of the book extends beyond academic discourse. It offers actionable recommendations that support national and regional development priorities, including Jamaica's progress toward SDG 7 (affordable and clean energy), SDG 5 (gender equality), and broader social protection and economic empowerment agendas. By highlighting structural barriers and proposing policy-focused solutions, the book equips policymakers, development practitioners, and community organisations with the evidence needed to design more equitable and inclusive energy systems. Its insights contribute to enhanced gender-responsive planning, improved community resilience, and strengthened pathways for sustainable development across Jamaica and the wider Caribbean.
Book Link- https://link.springer.com/book/10.1007/978-3-031-89079-6

Dr. Shinique Walters is a Jamaican scholar specialising in gender and aid, exploring development, empowerment, and policy across vulnerable communities.

Best Research Publication

Dr. Dacia Leslie, Sir Arthur Lewis Institute of Social and Economic Studies (SALISES)

Leslie, D. L. (2025). The Effects of the COVID-19 Pandemic on Prison Overcrowding in Jamaica. Victims & Offenders, 20(2), 211–254. https://doi.org/10.1080/15564886.2024.2439938

This journal article is a direct output of the Faculty of Social Sciences Research Writers' Conference held at Golden Shore Beach Resort Hotel, Lyssons, Saint Thomas on 7th-10th January 2021. It also builds on the researcher's first published Jamaican Gleaner article, "Ease prison overcrowding". http:// jamaicagleaner.com/article/commentary/20170204/dacia-leslie-ease- prisonovercrowding.

The article examines how the COVID-19 pandemic affected prison overcrowding in Jamaica and explores what the government did to ease the pressure on correctional centres during the first critical phase of the crisis. It addresses a major area of need by showing how a public health emergency exposed long-standing problems in the "correctional" system, including limited space, delayed trials, and restricted access to healthcare and rehabilitation services. The study provides a clear explanation of how overcrowding is not just about the number of persons deprived of liberty but is very much also about the quality of life of inmates; how they live, interact, and survive within the facilities.

The research fills a critical gap. Most COVID-19 studies focused on health, tourism, and crime, but very few examined decarceration and prison management in the Caribbean. Using secondary data, including accounts from correctional officers via YouTube videos and other multimedia sources, the article introduces new concepts such as "demographic overcrowding". It shows five key ways in which the pandemic changed prison operations. These included a significant drop in new admissions, suspended visits, the use of digital screening tools, the training of inmates as medical orderlies, and increased use of virtual court hearings.

The article contributes to Jamaican and regional development by offering recommendations that can guide policy reform and crisis management planning. It also highlights the need for better mental health support, safer spaces for vulnerable inmates, and clearer legal procedures for people held indefinitely. Several issues are linked to broader social inequalities, including poverty, lack of legal representation, and colonial legacies. These connections make the article relevant to Jamaica and other independent Commonwealth Caribbean states that face comparable challenges.

The study shows that overcrowding is a human development problem maybe more so than it is a numbers challenge. If correctional centres are to become rehabilitative spaces and not places of harm, policies must be guided by public health, human rights, and social justice. The findings can help policymakers, advocates, scholars, and the public understand that crisis planning must include correctional centres, as the safety of persons deprived of liberty and correctional staff affects society as a whole.

Dr. Dacia Leslie is a senior Research Fellow and Chair of the Crime Prevention and Offender Management Research Cluster hosted by the Sir Arthur Lewis Institute of Social and Economic Studies (SALISES), The UWI Mona

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Principal's Research Awards 2026
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FACULTY OF SPORT

Best Research Publication

Dr. Sharmella Roopchand-Martin, Mr. Barrington Gayle
Faculty of Sport

Martin, S. R., Gayle, B., Wickham, V., Miller, L. A., & Codling, S. (2024). Knowledge, Attitude and Practice of Male Professional and Semi-Professional Footballers Towards Concussion: A look at two countries from the Caribbean Football Union. Caribbean Medical Journal. https://doi.org/10.48107/cmj.2024.12.003

Concussion in sport has emerged as a critical global health concern, particularly within football (soccer), where increasing reports of chronic brain injury have been documented in autopsy findings of former professional players. These developments have prompted major policy shifts internationally, including restrictions on heading in young children across North America and Europe. With an estimated 265 million participants worldwide—43 million of whom reside in North America, Central America, and the Caribbean (Kunz, 2007)—football represents a significant population at risk. Despite this, there is a notable absence of published research examining concussion knowledge and attitudes among footballers in the Caribbean. As scientific understanding of concussion recognition, management, and long-term effects continues to evolve, the establishment of targeted educational programmes for all stakeholders, especially athletes, is essential. Such initiatives must be informed by an accurate understanding of existing knowledge gaps within the region.

This study investigated the concussion-related knowledge and attitudes of semi-professional and professional male footballers in Jamaica and Guyana. These countries were intentionally selected to reflect contrasting contexts within the Caribbean Football Union: one with one without FIFA World Cup qualification experience, and one with and one without an active Sports Medicine Association. This design allowed for a broader representation of the region's football landscape and its varying levels of medical and organizational support.

Findings revealed a clear deficit in concussion knowledge among players in both countries, underscoring an urgent need for structured educational interventions. While overall attitudes toward concussion were generally positive, important areas for improvement were identified. Notably, unsafe behaviours—such as returning to play while still experiencing symptoms—remain prevalent and require targeted behaviour-change strategies. Additionally, most players strongly supported the international movement to restrict heading in young children, suggesting readiness within the region for policy discussions aligned with global best practices.

This study highlights a critical gap in athlete education on concussion within the Caribbean and provides evidence to guide national federations, clubs, and football academies in strengthening their health and safety frameworks. By integrating concussion education into athlete development programmes, regional football organisations can play a pivotal role in safeguarding player welfare and advancing a culture of informed, responsible participation in the sport.

FACULTY OF SPORT

Faculty Research Project Attracting the Most Research Funds

Dr. Sharmella Roopchand-Martin, Faculty of Sport

To strengthen sports systems for persons with disabilities (PWD), the Americas Paralympic Committee (AmPC) commissioned an evaluation of sport public policy in Jamaica, Barbados, and Trinidad & Tobago. The study examined policy structure, stakeholder roles and alignment with national and international frameworks to identify gaps and recommend improvements for inclusive sport development.

Policy documents were analysed to assess:

- Access to sport and physical activity for PWD.
- Alignment with laws and frameworks such as the UNCRPD, UNESCO's International Charter, Kazan Action Plan, and SDGs.
- Key partners for inclusive sport programmes.

All three countries ratified the United Nations Convention on the Rights of Persons with Disabilities and endorsed UNESCO's Kazan Action Plan and International Charter. National commitments include Jamaica's *Disability Act* and National Plan for PWD, T&T's *Equal Opportunity Act* and updated disability policy, and Barbados' Bill of Rights and disability policy. Sport policies exist for Jamaica and T&T, while Barbados has a Green Paper. Disability is mentioned in education and infrastructure legislation, but language is generic, lacking actionable targets, international standards, and funding priorities.

Barbados's policy specifies access to facilities, training, and transport for PWD. T&T's disability policy highlights spaces for sport, facility accessibility, elite competition, and awareness, though its *Equal Opportunity Act* omits sport. Jamaica's *Disability Act* does not prioritise sport, and its National Plan includes only minimal references to disability. Sport policies use broad terms like "sport for all" or "total participation" but lack objectives for persons with disability. Inconsistent terminology (e.g., "specially challenged," "differently abled") reflects limited conceptual clarity across the three countries. Policies fail to fully align with accessibility principles in the Kazan Action Plan and International Charter. Education and building acts address wheelchair access but do not consider sport-specific needs for training and competition.

Overall, inconsistent language, absence of actionable targets, lack of funding, and poor alignment across sectors indicate low prioritisation of sport for PWD. Greater inter-ministerial coordination and deeper understanding of sport requirements are essential. Engagement with athletes, coaches, and advocates is critical to ensure policies reflect participant needs rather than spectator perspectives, advancing the Caribbean toward inclusive sport development.

Individual country reports were produced and the AMPc has met with the governments to present the country findings and recommendations inclusive of the need for legislative reform and reorganisation of the sport sector as it relates to sport for persons with disability.

Grant Amount = US$23,100.00

Dr. Sharmella Roopchand Martin is a senior lecturer at The University of the West Indies with experience in qualitative and quantitative research in sports and exercise medicine.

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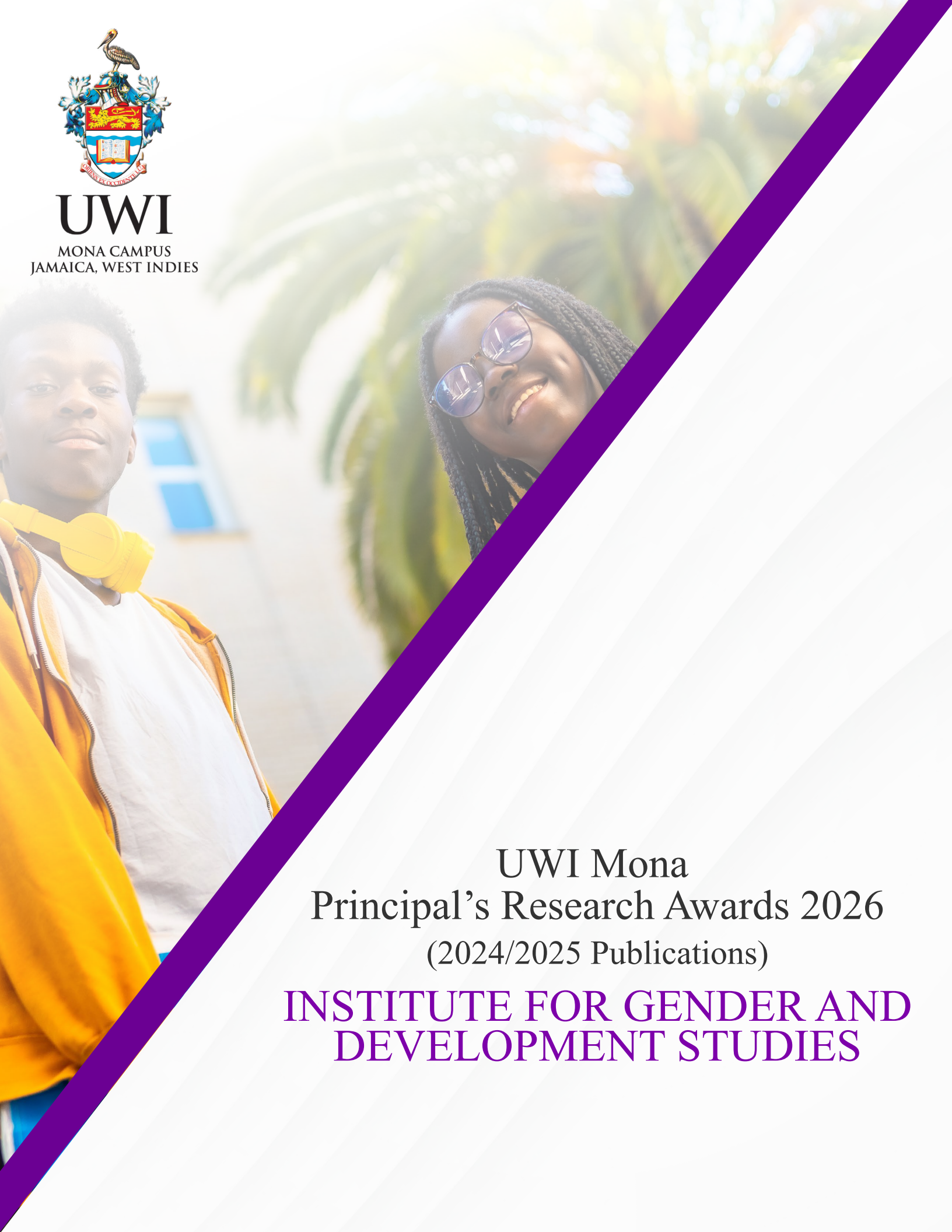

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Principal's Research Awards 2026
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INSTITUTE FOR GENDER AND DEVELOPMENT STUDIES

INSTITUTE FOR GENDER AND DEVELOPMENT STUDIES

Best Faculty Researcher

Dr. Isaac Dery, Institute for Gender and Development Studies

Dr. Dery was awarded Best Faculty Researcher for the academic year in recognition of a research profile that advances decolonial feminist scholarship, masculinity studies, and African-centred gender analysis. During the 2024/2025 academic year, he published a sole-authored article in the *Journal of Gender Studies*, a reputable, high-impact peer-reviewed journal (Impact Factor 1.5). Entitled "Re-imagining gender equality discourse through an Africa(n)-centred feminist perspective", the article offers a critical intervention into dominant global gender frameworks and has already begun to attract scholarly attention, with early citations recorded on Google Scholar. He also disseminated this work internationally through a peer-reviewed conference presentation at the African Studies Association of the UK Biannual Conference held at Oxford University.

His research excellence has been further affirmed through international recognition. In 2024, a co-authored article titled, "Gendering Counter-Terrorism: Kunya and the Silencing of Male Victims of Conflict-Related Sexual Violence in Northeastern Nigeria", received an Honourable Mention for the prestigious African Studies Review Best Article Prize. This distinction reflects the originality, scholarly merit, and policy relevance of his work in re-examining gendered violence within conflict and counter-terrorism studies.

His scholarship is distinguished by its theoretical depth and ethical commitment to centring historically marginalised perspectives. By bridging African feminisms and critical masculinity studies, his research challenges the binary classification of men as perpetrators and women as survivors in need of protection. Instead, he offers a more nuanced understanding of gender, violence, citizenship, and power.

Beyond his outputs in the award year, his broader research record demonstrates sustained scholarly influence, with over 31 peer-reviewed journal articles, a book chapter, and a Google Scholar citation count approaching 1,000. His research impact extends beyond academia through public engagement activities, including community dissemination workshops, media discussions, and policy-focused dialogues in Ghana and internationally. He has also demonstrated research leadership through extensive international collaborations across Africa, Europe, North America, and South Asia, fostering comparative insights on sociopolitical issues between African and global scholarship.

Dr. Isaac Dery, senior lecturer at Institute for Gender and Development Studies, researches men's lived experiences and their struggles to become "good" and "respectable" men.

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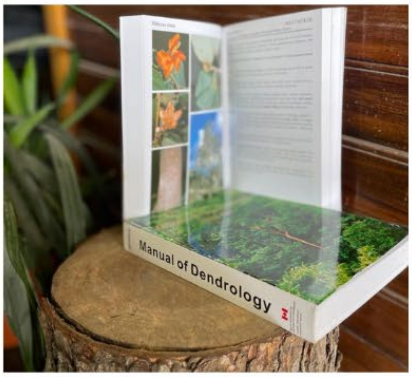

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