



UWI  
MONA

# UWI Mona Principal's Research Awards

2022/2023 and 2023/2024



Driving Jamaican, Caribbean and Global Development





UWI MONA

# PRINCIPAL'S RESEARCH AWARDS

2022 / 2023

AND

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# PRINCIPAL'S MESSAGE



## **Research Awards 2022/2023 and 2023/2024** *Celebrating High Value and High Impact Research*

**C**ongratulations to our outstanding research awardees for the 2022/2023 and 2023/2024 academic years. Your excellent performance over the last two academic years made our academy stronger and is beyond question, making our competitive position in the marketplace much stronger as we position ourselves to extract value from the hyper-competitive higher education marketplace. We celebrate you today and thank you for the inspiration you have provided to our community of scholars over the year. This inspiration will no doubt motivate another generation of scholars to create knowledge for the continued advancement of our society and the betterment of our people. The Research Day Awards Ceremony is one of the most impactful events on the campus's calendar. It showcases the best of our community in the scholarly world. This year, we celebrate over 100 members of our community who are being awarded in various categories, from outstanding publications in highly impactful and rigorous publication outlets to delivering on projects that have generated significant income for the campus over the years under consideration. The various award categories, as depicted in the booklet, were carefully chosen to capture the value of the work we continue to pursue at The UWI Mona.





Our research is not done merely to satisfy our intellectual curiosity but also aims to solve major developmental problems to assist with the advancement of our society and positively change the lives of citizens. Each faculty went through a painstaking process to select the best outputs from their research stock to be celebrated at our awards ceremony. It wasn't an effortless task because all of our outputs at The UWI Mona are of high quality. I have full confidence that the rigours associated with the selection process allowed us to have the best and most impactful outputs for display. While we applaud and celebrate the researchers and their various teams, I would also like to use the opportunity to thank the team who planned and coordinated the entire Research Day project. Professor Marica Roye as chair of the research committee along with Ms Stephanie Cain, Executive Assistant to the Campus Principal; Dr Arlene Bailey, Senior Research Fellow, SALISES; Mr Odain Murray, Acting Director, MARCOM; and Dr Michael Holgate,

Director of Events at the Mona Campus and all the other hardworking members of the team should be recognized and celebrated for their work in planning the Research Day activities. Eternal thanks to them. I am sure that the awards will provide added motivation to our scholars and emerging scholars to increase their productivity and continue to add value to the institution in the coming years. Mona is very proud to be associated with you and your work. Once again, on behalf of the entire Mona family, I offer my heartiest congratulations to our awardees and look forward to increased high value and high impact outputs in the next iteration of our research days.

Densil A. Williams  
Pro Vice-Chancellor and Principal





# FACULTY OF **ENGINEERING**

2022 - 2023







**Dr. Omar Thomas**  
Civil Engineering



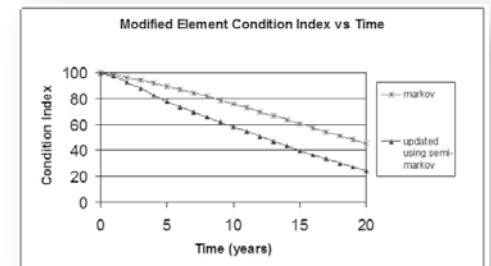
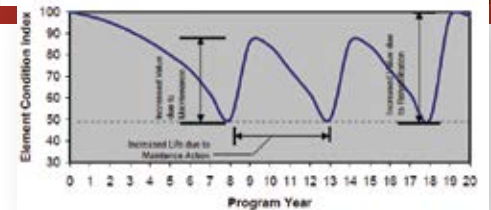
## The Application of Markov and Semi-Markov Models in Transportation Infrastructure Management.

Thomas, O., & Sobanjo, J. (2023). *The Application of Markov and Semi-Markov Models in Transportation Infrastructure Management*. In *Markov Model-Theory and Applications*. DOI: 10.5772/intechopen.1001134.

This article outlines how stochastic models, such as Markov and semi-Markov models, can be used in Transportation Infrastructure Management Systems (TIMS), in particular Pavement and Bridge Management Systems. The use of Markov models have been used in both Pavement and Bridge Management Systems for years. In more recent times the use of semi-Markov models have been introduced in Bridge Management Systems.

Research has shown that if there is enough data available to develop semi-Markov models for transportation infrastructure, then this stochastic technique can be used to predict the future network level conditions and can be used in the development of preservation models for transportation infrastructure. The models and techniques developed and provided in this work demonstrates how stochastic techniques, in particular semi-Markov models, can now be applied to TIMS. Previous work using semi-Markov models was limited to a one-state change, however this work provides an explanation of how multiple state changes can be modelled using the semi-Markov techniques.

The establishment of the stochastic techniques provides an opportunity for transportation agencies and their partners to develop tools for TIMS that can utilize these techniques to provide possibly better predictions on the state of



the network of infrastructure for which they are responsible. Furthermore, the application of these techniques are not limited to only transportation infrastructure, but can also be applied in other areas.







FACULTY OF  
**HUMANITIES AND EDUCATION**  
2022 - 2023

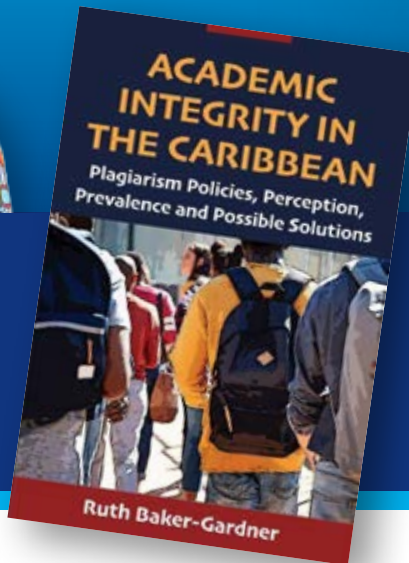








**Dr. Ruth Baker-Gardner**  
Library and Information Studies



**Baker-Gardner, R. (2022). Academic Integrity in the Caribbean: Plagiarism Policies, Perception, Prevalence and Possible Solutions. Kingston, Jamaica: University of the West Indies Press.**

Dr. Baker-Gardner's book is one of the most comprehensive sole-authored books on academic integrity in the world. This book is a unique contribution of original empirical research conducted in the region, combined with a qualitative analysis of publicly available documentation (e.g., news reports and accreditation guidelines), and a comprehensive synthesis of the global knowledge base of plagiarism and academic integrity.

This book is the first of its kind on academic integrity in the Caribbean. Dr. Baker-Gardner is regarded as the expert on academic integrity in this region. This is a unique and much-needed publication to elevate the work being done in the Caribbean with respect to academic integrity. This book has had a profound impact on global conversations about academic integrity. Prior to this, the Caribbean was largely neglected in the international discourse relating to plagiarism and academic integrity. This book provides an empirical evidence base for informed dialogue by demonstrating unique examples and data that are pertinent to the region. It includes a presentation of academic integrity issues at both the secondary and tertiary levels, appealing to a wide audience.

Presented in three (3) sections, this book includes 21 chapters, each of which relates to and builds upon previous chapters. The writing is not only cogent, but compelling and is supported by two appendices, 30 tables, and

29 figures. These, together with 39 pages of bibliographic references, provide exquisite detail about the epistemological provenance of the subject matter.

This book is methodical, clear, and precise. The subject matter can be difficult or taboo, but Dr. Baker-Gardner's straight forward approach demystifies difficult topics with her practical approach and excellent writing. She contextualises the discussion within the social and academic environments, enhancing its relevance.

Spanning 379 pages, this book serves as both an academic and intellectual foundation of scholarship, as well as a guide for evidence-informed policy and praxis. Dr. Baker-Gardner has single-handedly presented both depth and breadth of historical and contemporary aspects of plagiarism and other forms of academic misconduct by students, as well as professors, while elevating the discussion on the importance of academic integrity. Dr. Baker-Gardner demonstrates an unparalleled depth of subject matter expertise and her work stands as an exemplar of excellence in the global landscape of academic and research integrity research.





**Dr. Sharline Cole**  
School of Education

**Dr. Yewande Lewis-Fokum**  
School of Education



**Stewart, S., Cole, S., & Lewis-Fokum, Y. (Eds.). (2022). Each One Teach One: Parental Involvement and Family Engagement in Jamaica's Education System. University of the West Indies Press.**

The editors have compiled a range of contributions from scholars and practitioners, which not only underscore the challenges faced in the Jamaican education system but also present innovative strategies for enhancing parental engagement. The chapters delve into cultural, socioeconomic, and institutional factors that influence family involvement, making it a comprehensive resource for educators, policymakers, and researchers interested in education reform and community engagement.

One of the strengths of the book is its focus on practical solutions and case studies that illustrate successful programmes and initiatives in Jamaica. This makes it not only an academic resource but also a guide for implementing effective family engagement practices in schools.

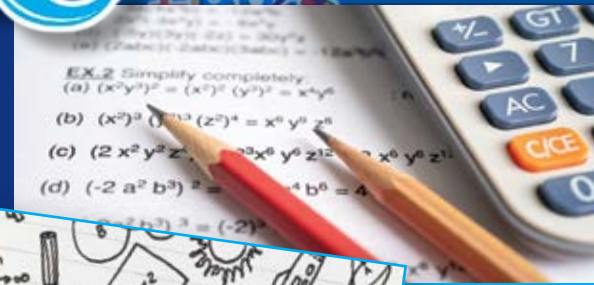
Overall, the book serves as an important contribution to the discourse on education in Jamaica, emphasizing that strong partnerships between parents and schools are essential for nurturing the next generation of learners. Its insights are valuable for anyone looking to understand or improve the dynamics of family involvement in education, particularly in the Caribbean context.

The edited book, Each one teach one: Parental involvement and family engagement in Jamaica's education system, examines the relationship between education and families from both a Jamaican perspective as well

as from the lens of educators and parents/guardians. The edited book fills a gap in the research by exploring family engagement in education within multiple contexts, as well as through multiple methodological designs – from systematic reviews to qualitative and quantitative methods. The book makes two main contributions to the field. First, it provides a Caribbeanized conceptual framework to understand the relationship between parental involvement/family engagement and education from the basic school level to workforce readiness. Second, it provides multiple perspectives of parental involvement/family engagement, for example, how parents can better support their children's mathematical interest to the experiences of families of children with disabilities, as well as family engagement in non-traditional and rural schools. Therefore, this is a book that other researchers, principals, teacher leaders, and policy makers should read and refer to in crafting their own research in this area, or in envisioning education policies and practices related to engaging families to better support their children.



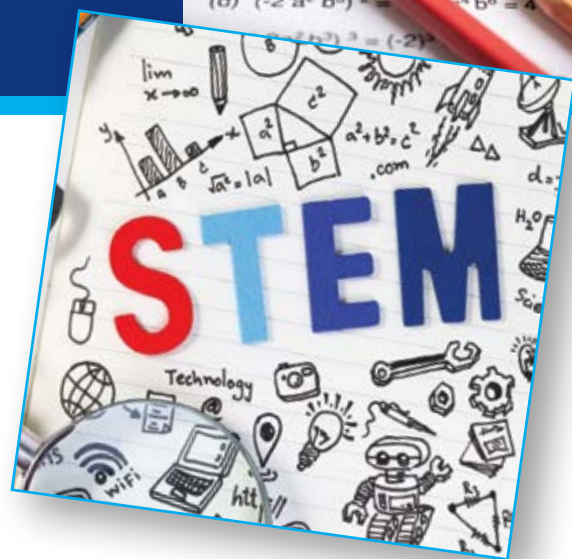
**Dr. Lois George**  
School of Education



**George, L. (2023). Investigating Large-Scale, High School Mathematics Achievement Through the Lens of the Cognitive Domains. *The Electronic Journal for Research in Science & Mathematics Education*, 27(3), 35-63. <https://ejrsme.icrsme.com/article/view/23076>**

The article examined mathematics achievement in Jamaican secondary schools using extensive data from the Caribbean Secondary Education Certificate (CSEC) examinations conducted in 2015, 2016, 2018, and 2019. It focused on students' performance across three cognitive domains—knowledge, comprehension, and reasoning—each reflecting distinct thinking processes required for engaging with mathematical content. The study also explored gender-based performance differences.

Jamaica and the broader Caribbean have long grappled with suboptimal student performance in mathematics, a critical issue given the subject's importance for educational and vocational success, especially in STEM-related fields. Consequently, there is an urgent need for data-driven insights to understand students' performance patterns better, laying a foundation for targeted educational interventions. This study filled a significant gap, as few investigations have explored student performance across cognitive domains using large-scale data. Dr. George's research is groundbreaking in the Caribbean, expanding on previous studies by analyzing a more comprehensive dataset and yielding generalizable findings.



This marks the first study in the Caribbean to explore gendered performance differences across cognitive domains, making a substantial addition to the empirical literature in this field.



## Most Outstanding Researcher



**Dr. Therese  
Ferguson**  
School of Education



**For research in Education for Sustainable Development, resulting in the publication of 1 co-edited special journal issue and Editorial; 2 book chapters (co-authored); 2 journal articles; 5 conference presentations; 1 invited keynote address; and 2 workshops over 2022-2023.**

Much of my work during the period surrounded my focal area of Education for Sustainable Development (ESD). The Environmental Education Research Special Issue on Environmental and Sustainability Education (ESE) in the English-Speaking Caribbean, along with the accompanying Editorial, offer a significant collection of theoretical and empirical insights on areas such as arts-based environmental education, the integration of faith and values into ESD/ESE, the importance of teacher education, issues surrounding assessment, and perspectives on progress in the field from stalwarts in the region.

These contributions can inform policy-making, decision-making and education imperatives in the field of ESE, particularly given regional sustainability issues such as climate change, disaster risk, and crime and violence. The insights are critical for the Caribbean but are not relegated to the region. My own article in this SI is framed within the current ESD for 2030 framework, offering reflections on regional progress in the field of ESD to-date, current challenges and future prospects, drawing on interviews with stalwarts in the field from various Caribbean countries. My invited Keynote Address examined impediments and imperatives in ESD for the region. It similarly offers current and future scholars an important foundation on which to move ESD forward. Importantly, two of my conference presentations with colleagues focused on the role of teachers in ESD, given that teachers are key change agents.

The book chapter on parental involvement and school violence, co-authored with a Masters student and based on her research, ties in with another aspect of my ESD work - peace education. Whilst the quantitative findings found that parenting and communication did not deter students' engagement in fights, we still advocated for parental involvement as part of a wider systems approach to the problem of school violence, inclusive of various stakeholders and attendance to wider structural issues. Similarly, one of the conference presentations focused on the role of parental involvement in addressing school violence. The two workshops facilitated on behalf of UNESCO focused on classroom management and conflict resolution strategies to build capacity amongst teachers to address these issues in their classroom spaces.

The remaining work pertains to my interests in qualitative research and researcher development. The TQR article analyses written coursework reflections to explore master's level students' experiences in a qualitative research course. Recommendations are made for the integration of opportunities for more practical, experiential learning activities and peer work for those delivering qualitative research courses. Similarly, the conference presentation examines teaching and learning qualitative research online during the pandemic, sharing insights for those engaging in online qualitative research course delivery during times of emergency and beyond. The co-authored book chapter and conference presentation with my colleague from The UWI uses a qualitative autoethnographic approach to explore our experiences as female academics during the COVID-19 pandemic. We found that our faith, our social networks, and our internal quests for professional and self-actualisation enabled our resiliency. The transparent sharing of our experiences can empower females in the academy.

The body of work produced during the 2022-23 academic year highlights various contributions to ESD, and to researcher resiliency and development amongst both postgraduate students and academics.



## Most Outstanding Research Activity



**Prof. Canute Thompson**

School of Education

**Dr. Ann-Marie Wilmot**

School of Education



### For joint research on leadership in education, resulting in the publication of 1 co-edited book, 2 book chapters and 2 journal articles over 2022-2023

Thompson, C. S., & Wilmot, A-M. (2022). Jamaican teachers' perspectives on their power and empowerment at their schools. *Power and Education*, 14(2), 113-127.

Teachers' potential to contribute to the effective functioning of schools beyond the narrow boundaries of their classroom or head of department activities is often overlooked. We explored the degree to which the leadership and management practices in nine schools across Jamaica, in the assessment of teachers, include power sharing.

School leaders should design systems to allow all staff members to lead some aspect of the school's operations and the Ministry of Education should establish policy guidelines to stimulate and encourage mechanisms for power-sharing practices in schools.

Wilmot, A-M., & Thompson, C. S. (Eds.). (2022). *Handbook of Research on Activating Middle Executives' Agency to Lead and Manage During Times of Crisis*. IGI Global.

This edited volume focuses on empowering middle leaders in educational institutions and the business sector during crises. Many mid-tier executives felt uncertain and powerless, especially during the COVID-19 pandemic, yet were expected to lead effectively in complex situations. The emotional experiences of confusion and helplessness were common across various crises. This book uses empirical research to respond to these concerns, by emphasizing practical solutions for enhancing leadership and management skills among mid-tier executives.

Thompson, C. S., & Wilmot, A-M. (2022). Power Sharing in Times of Crisis: Jamaican Teachers' Reflections on Principals' Leadership Approaches in the COVID-19 Pandemic. In *Handbook of Research on Activating Middle*

*Executives' Agency to Lead and Manage During Times of Crisis* (82-110). IGI Global.

Considering the established power of distributed leadership on organisational effectiveness in ordinary times and crises, this qualitative, interview-based research explored the leadership approaches principals utilised to assist their leadership efforts. We drew on the findings, literature, and researchers' knowledge to develop a two-tiered empowerment frame as the main recommendation. "MPOWERED Frame: A Principal's Tool for Developing Mid-Tier Leaders' Agency for Leadership Through Crisis."

Thompson, C.S., Hutton, D.M., & Wilmot, A-M. (2022). "Governance in Jamaican Schools: A qualitative exploration of the perspectives and experiences of selected stakeholders". *International Studies in Educational Administration*, Vol 50; No.2, 20 - 45

The article examines the perspectives and experiences of select stakeholders of the Jamaican education system on the quality of governance of schools and highlights weaknesses in the governance framework which must be strengthened to improve school and student performance

Thompson, C.S., & Wilmot, A-M. (2022) Student-teachers' perspectives on sustainable development. In Walter Leal Filho and Claudio Ruy Portela de Vasconcelos (Eds) *Handbook of Best Practices in Sustainable Development at the University Level*. (353 - 375). Cham, Switzerland: Springer. This qualitative study was conducted among Teachers' College students in service-learning to ascertain student-teachers' perspectives on sustainable development. The study found that while student-teachers are aware of the scope and purpose of sustainable development and their roles in creating a more conscious citizenry, there is lack of awareness on the part of many of their students. The study has implications for how colleges and universities structure the service-learning components of courses.

## Most Outstanding Research Activity



**Dr. Schuyler Esprit**  
Literatures in English



### Visualizing Caribbean Literature

For the project 'Visualizing Caribbean Literature (VCL)', designed and led by Dr Esprit as part of Create Caribbean Research Institute's Mellon Foundation grant. Research for the project started September 2022 and publicly launched in February 2023.

This digital humanities project has produced a public, interactive database of Caribbean literature from 1800 to the present, with continuous content updates and design upgrades at least once per semester. It is available at <https://createcaribbean.org/vcl/home/>. It not only catalogues the creative works of people of Caribbean birth and heritage, but also provides bibliographic context of publications through the inclusion of new and translated editions of authors' publications over time. The database represents approximately 3700 publications by 495 unique authors, represented in 56 languages. Users may search by author, language, genre, country or publisher location. It functions beyond a traditional library and allows users to explore and search for a broad range of Caribbean works, and enabling users to identify patterns in literary history and cultural production. In this way, it provides opportunities for future researchers to do close analysis on specific historical or contemporary texts, or to analyse trends, gaps or anomalies in the creative writing and publishing industries. Students and scholars of a wide range of scholarly interests can directly benefit from the research and organization of the database for teaching, learning and research. Student projects available on the site illustrate the pedagogical impact of the database and demonstrate the unique insights and connections that students have made while collecting and curating the data for this project. Student project topics range from Caribbean folklore to locations of book translations around the world, to a global analysis of gender distribution among writers in the 1960s-1990s.



VCL is not only valuable for its contribution to literary studies and its potential for public engagement as a resource to find and share creative works, but is also a significant and robust example of Caribbean digital scholarship. It uses the approach known as minimal computing and is built using a Ruby-based system called Jekyll. This is a more sustainable methodology for digital scholarship, whereby we use fewer resources – data, bandwidth, licensed software – and rely more on the resources that are available and offered in order to have longer lasting projects that withstand technological advances, climate crises and geopolitical instability. Moreover, the benefit is that non-coding students and scholars get experience in learning code and computer science experts get experience in research and writing, reflecting a symbiotic project development experience.



## Research Project Attracting the Most Research Funds



**Dr. Deon Edwards-Kerr**  
School of Education

**Dr. Joan Spencer-Ernandez**  
School of Education

**Dr. Lois George**  
School of Education



### Curriculum Review and Revision to Incorporate a Focus on Special Education in St. Lucia

This project was undertaken to achieve better long term outcomes for learners on the Special Education spectrum. To this end, it began with a full review of the national curriculum of St Lucia.

This review revealed that the educational requirements of learners with special education needs were not being met. The project then undertook a revision of the national curriculum of St. Lucia and the design of programmes of study and curriculum guides that would allow teachers to cater to the needs of all learners. The outcome is a curriculum that ensures that learners with special education needs can follow a path for learning which is well-ordered, supported, and streamlined for achieving at their fullest potential in an inclusive educational environment.

This work changed the emphasis in the national curriculum from didactic forms of teaching to a differentiated approach. Such an approach ensures that students of varying abilities are able to access the curriculum content. To achieve this, the curriculum was re-designed to be multi-tiered. This was especially important in grades K to 9, where many students struggled with foundational skills. These students often needed remediation, or dropped out of school.

The shift to inclusive education was also reinforced through the training of over 300 teachers and school leaders as the basis for implementing the new approach. The multi-tiered curriculum was accepted by the Ministry of Education and is the approach now used by the Curriculum and Materials Development Unit of the Ministry of Education, St. Lucia.



The Permanent Secretary in the Ministry of Education, St Lucia, commented as follows on the outcome of the project: "UWI Mona (School of Education) has revised the existing curriculum guides such that the subject curricula are tiered. This should enhance the capabilities of teachers to deliver quality instruction within a mixed-ability classroom; quality instruction being evidenced by improved learning outcomes and an overall sense of belonging for all learners – particularly students with Special Education Needs. The Ministry of Education extends appreciation to UWI Mona School of Education, for fulfilment of this deliverable, and looks forward to a sustained partnership"

This project was awarded US\$129,750 by the Ministry of Education, St Lucia, funded by the Caribbean Development Bank.

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



**Dr. Deborah  
Hickling-Gordon**

Institute of  
Caribbean Studies



## Connect the Dots: Mapping Kingston Networks of Culture

The project “Connect the Dots: Mapping Kingston Networks of Culture” (CTD), sought to, and successfully evaluated the socio-political, cultural, and economic framework of the Jamaican cultural and creative ecosystem and economy. It provides broad based policy recommendations for Jamaican cultural economy policy with analysis drawn from the application of the pilot mapping methodology to Kingston as a Creative City of Music. It used data collection and other methodological steps to elaborate cultural and creative stakeholders’ presence and status in Kingston.

It further developed an events methodology and an operational plan for three thematic events and EU stakeholders interested in collaboration with Jamaican cultural actors.

This mapping study shows the added value of creative industries existing in Kingston, Jamaica fostering dialogue between them and facilitating their linkages with Europe. It developed a mapping methodology for Kingston’s Cultural and Creative Ecosystem (CCE), to include data, methodology and policy recommendations for Kingston, including its stakeholders and players and reflecting four predetermined priority thematic areas - Creative integration with the Digital Economy; Financial Inclusion/Access to finance; Inclusion and Community Outreach; EU-Jamaica linkages.

CTD’s contribution to society, national, regional and in particular the developing world involved the application of a conceptual framework for cultural policy development designed by Dr. Deborah Hickling Gordon of UWI, Mona. The South Star Model and P.I.E.G.O methodology that evaluates the



national philosophy or ethos of countries of the Global South, its ideology and prevailing political economy; economy and economic structures in relation to the establishment of a national cultural economy; governance structures, legislative and policy processes; and its operational, institutional, enterprise, activity and practitioner ecosystem

The research provided strong, specific qualitative data for each of the thematic considerations. These were further analysed and articulated in relation to new knowledge created and research gaps filled through four policy status reports on the Status of the Artist, Infrastructure, the Music subsector, and a general report on the status of policy in the Kingston UNESCO Creative City of Music. Moreover, ten priority areas of focus were proposed, five having a cross-cutting, intersectional and shared Central/Municipal government focus in relation to the Kingston UNESCO Creative City of Music; and five being general central government policy recommendations. This granular cultural economy research had not been done for Jamaica prior to its publication. CTD was funded by the EU as part of the global Cultural Relations Platform. This activity was selected by the EU among many others worldwide, as showing potential to influence public policies.





# FACULTY OF **LAW**

2022 - 2023









**Prof. Shazeeda  
Ali**  
Faculty of Law



### **“Micro-credit legislation for a macro-economic concern” (The Company Lawyer, 2022)**

This article explores the provisions of the recently enacted Microcredit Act 2021 of Jamaica. It highlights a number of the key measures that have been implemented by this legislation. The discussion exposes the lacuna in the regulatory regime that previously existed as well as the potential impact it would have on microfinance, in particular, and the financial services industry in general.

Microcredit institutions constitute the core of the (MFI) as they provide capital and other financial resources to persons who are usually unable to access conventional financial institutions in order to obtain traditional financial products and services. The legislation has been welcomed by the MFI since it seeks to strengthen the sector and improve its long-term sustainability. It is likely to attract even more players, thus providing greater access to credit for underserved segments whilst supporting Jamaica’s national financial inclusion strategy.

It is hoped that the approach taken in the Act to regulate the MFI will strike an appropriate balance to ensure the safety and soundness of the industry whilst remaining accessible to its intended clientele.



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



**Dr. Natalie  
Corthesy**  
Faculty of Law

**Dr. Yentyl  
Williams**  
Faculty of Law



**“Maximising The Benefits Of Origin Products  
In An Emerging Economy - The Impact Of  
Geographical Indication Protection In Jamaica”  
(Thomson Reuters, 2023) (and collaborators)**

Jamaica enacted Geographical Indication (GI) legislation in 2004, which was promulgated in 2009, and amended in 2018. This brought Jamaica’s law pertaining to GIs into full compliance with its obligations under the World Trade Organisation’s (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). However, to date, only two products have been registered nationally under the Act ‘Jamaica Jerk’ (2015) and ‘Jamaica rum’ GIs (2016), although many more Jamaican products are eligible to benefit from GI protection.

This apparent under-utilisation of the GI system raises two critical questions: (i) Whether the small number of GI registrations is due to a knowledge gap on the part of GI producers? and (ii) To what extent can the knowledge gap be attributed to an institutional gap due to inadequate technical and financial support from the government of Jamaica to GI producers? A joint legal research project was undertaken by a Jamaican-UK team to explore this polemic. A representative sample of public and private sector GI stakeholders were interviewed - 6 Stakeholder industries including cannabis, castor oil, coffee, honey, jerk, and rum, and 3 regulatory bodies including the Jamaica Bureau of Standards, the Jamaican Agricultural Commodities Regulatory Authority (JACRA) and the Jamaican Intellectual Property Office (JIPO).

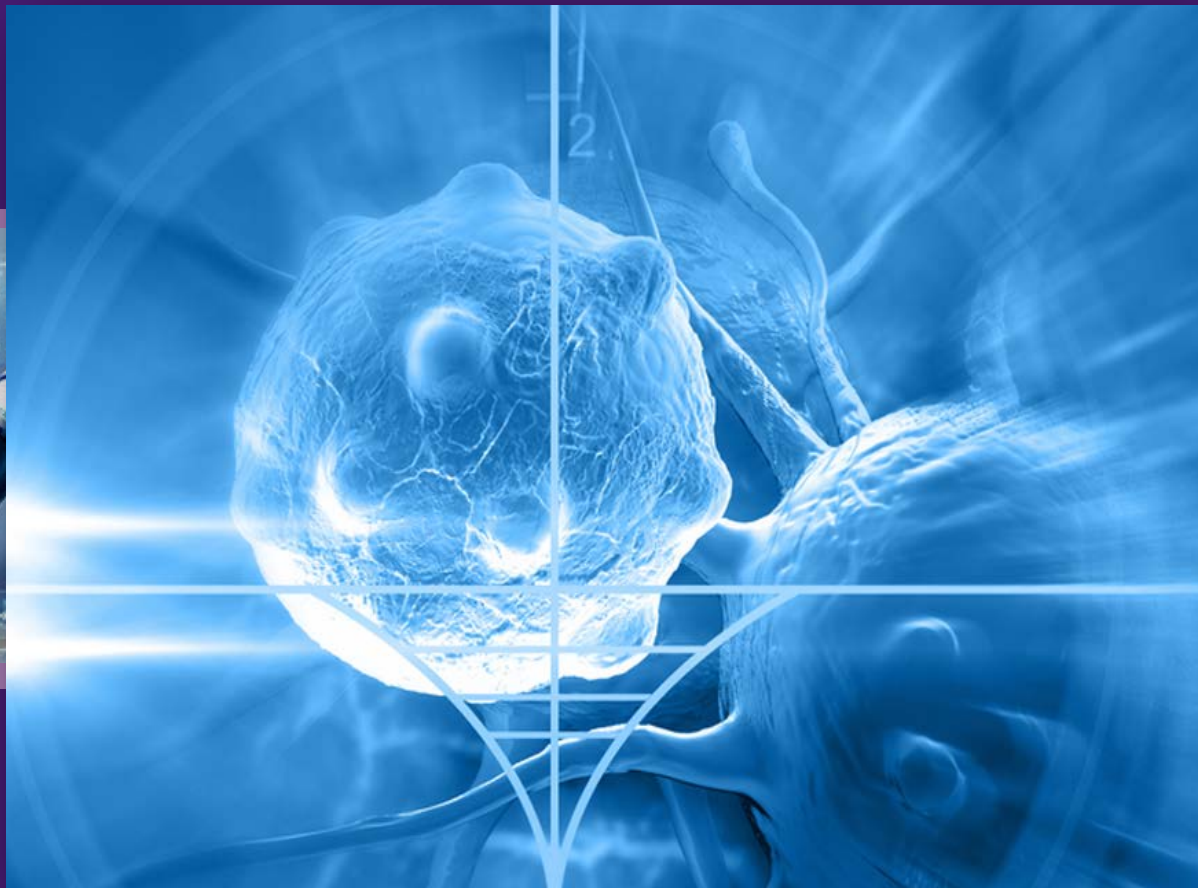


This paper draws on the outcome of the interviews we had with these local stakeholders, and sheds light on the knowledge and institutional gaps impacting GI stakeholders in Jamaica.





FACULTY OF  
**MEDICAL SCIENCES**  
2022 - 2023







*Best Research Publication and Research Project with the  
Greatest Business / Economic / Development Impact*



**Prof. William Aiken**

Surgery, Radiology,  
Anaesthesia and  
Intensive Care &  
Emergency Medicine

**Dr. Belinda Morrison**

Surgery, Radiology,  
Anaesthesia and  
Intensive Care &  
Emergency Medicine

**Dr. Warren Chin**

Basic Medical  
Sciences

**Prof. Wayne McLaughlin**

Basic Medical  
Sciences

**Dr. Rory Thompson**

Pathology

**Dr. Simone Badal**

Basic Medical  
Sciences

**Expanding the prostate cancer cell line repertoire with ACRJ-PC28, an AR-negative neuroendocrine cell line derived from an African-Caribbean patient.**

This groundbreaking research addresses a critical gap in prostate cancer research by creating ACRJ-PC28, the first prostate cancer cell line from an Afro-Caribbean patient. This development is crucial because while Black men, especially those from the Caribbean, face higher rates of prostate cancer deaths, only 2% of available laboratory cell lines come from Black patients, making it difficult to develop effective treatments for this population.

The researchers not only created this new cell line but also developed a more successful method for growing cancer cells in the laboratory. The cell line shows unique characteristics, including the ability to switch between different forms of cancer cells and different responses to drugs compared to existing cell lines. Importantly, we discovered that this cell line represents a rare and aggressive type of prostate cancer (neuroendocrine type) and found that a Jamaican cannabis extract was effective at killing these cancer cells. This work contributes significantly to addressing healthcare disparities by providing researchers worldwide with tools that better represent Caribbean populations, enabling more accurate testing of treatments for Black patients, and creating opportunities for



developing targeted therapies using local resources. These advances could ultimately lead to more effective treatments for Black men with prostate cancer, who currently face worse outcomes than other groups.



## Best Research Publication

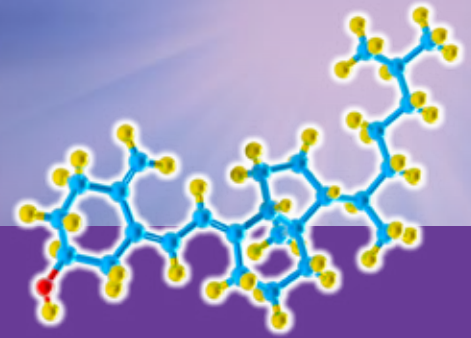


**Dr. Donovan McGrowder**  
Pathology

**Prof. Marshall Tulloch-Reid**  
Caribbean Institute for Health Research

**Prof. Kathleen Coard**  
Pathology

**Prof. Affette McCaw-Binns**  
Community Health and Psychiatry



**Prof. Trevor Ferguson**  
Caribbean Institute for Health Research

**Prof. William Aiken**  
Surgery, Radiology, Anaesthesia and Intensive Care & Emergency Medicine

**Prof. Maria Jackson**  
Community Health and Psychiatry



### Vitamin D deficiency at diagnosis increases all-cause and prostate cancer-specific mortality in Jamaican men.

Globally, prostate cancer is the second most prevalent malignancy among Jamaican men who are predominantly of African descent. Studies have reported high incidence of prostate cancer in men of African ancestry with vitamin D deficiency. However, there is limited data on serum vitamin D and prostate cancer survival in people of African ancestry, particularly those residing in the Caribbean. We therefore studied the association of circulating serum vitamin D on prostate cancer-specific and all-cause mortality in Jamaican men with prostate cancer.

The study re-enrolled men with incident prostate cancer from the Prostate Cancer Risk Evaluation (PROSCARE) case control study approximately 11 years after initial participation. Survivors were invited to form part of a cohort study. Serum vitamin D from 152 Jamaican men with incident prostate cancer within the PROSCARE study were re-evaluated. Prostate cancer-specific and all-cause mortality were examined in Kaplan-Meier survival curves and Cox regression models adjusted for age, body mass index, smoking and Gleason score. Of cases with available vitamin D levels, 64 men with prostate cancer survived, 38 deaths were prostate cancer-specific and 36 died of other causes. At baseline, 9.9% of cases were vitamin D deficient and 61.2% were vitamin D

sufficient. The main finding of the study was that compared to vitamin D sufficient men, those who were vitamin D deficient were associated with higher prostate cancer-specific deaths and all-cause deaths. We concluded that vitamin D deficiency at prostate cancer diagnosis predicted decreased survival for overall and prostate cancer-specific cancer in Caribbean men of African ancestry. This study is the first report of such findings among Caribbean men of African descent and in particular Jamaica. This suggests that vitamin D may exert a protective effect in the progression and prognosis of prostate cancer. The study also addresses a critical gap in our understanding of the association between vitamin D levels and prostate cancer survival.

The findings of this study and further investigations could provide valuable insight for targeted treatment and better prevention strategies given the high incident rate of prostate cancer in Jamaica and other Caribbean countries. Also, there could be increase awareness of the possible role of vitamin D deficiency in prostate cancer development and highlight the need to improve vitamin D levels among men through increase exposure to sunlight, supplementation and public education. Therefore, the findings could lead to valuable strategies for improving men's health.

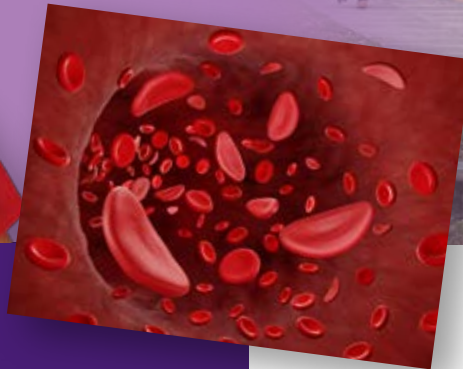
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## Most Outstanding Researcher



**Prof. Monika Asnani**

Caribbean Institute for Health Research



### Understanding barriers to the use of Hydroxyurea in Jamaica – the ‘Game Changer’ in reducing the burden of Sickle Cell Disease

Sickle cell disease (SCD) is the commonest genetic disorder worldwide that results from a single gene abnormality. It is associated with a lifetime of medical and socio-behavioural complications that require coordinated care from multidisciplinary teams. The birth incidence of SCD in Jamaica at 573 affected births/100,000 live births is the highest in the Caribbean.

Hydroxyurea is available on Jamaica’s Vital Essential National list and can be accessed free of cost in the public health system, and subsidized through the National Health Fund programme in private pharmacies. The Sickle Cell Unit (SCU), Caribbean Institute for Health Research at UWI has conducted several training workshops with healthcare professionals and other stakeholders to improve awareness and knowledge for using the drug. Despite these efforts, HU therapy remains underutilized in Jamaica - as is the case in most LMICs. For example, the SCU’s database shows that only 24% of persons attending the Unit over the past 2 years were using HU. We recently conducted a mixed methods study entitled “Access to Care for SCD Management in Jamaica: Enablers and Barriers to Hydroxyurea Utilization” to identify barriers to HU use in Jamaica. The study, funded by the Ministry of Health & Wellness, Jamaica, investigated: i. the acceptability, accessibility, and adherence to HU therapy among patients and caregivers of patients with SCD; ii. the knowledge, attitudes and barriers perceived by healthcare providers in provision of HU treatment; and iii. the health system and its efficiency, access, and availability in supplying HU to the SCD population. The study highlighted that about 50% of both adult and paediatric participants had been counselled to take

the drug, though only two-thirds of those counselled actually initiated therapy. The major barriers identified by both caregivers of children and adult patients were inadequate knowledge about HU, costs of treatment, concerns about side-effects, and frequent visits.

We are using these findings to guide development and implementation of strategies to improve HU uptake which will result in significant benefits to patients, families and the healthcare system including possible reduction in healthcare utilization. The current findings will be relevant in Jamaica, regionally and globally.

1. Fisher LA, Asnani M. Acute kidney injury in Jamaicans with sickle cell disease hospitalized with COVID-19 infection.
2. King L, Alexander-Gabbadon K, Chin N, Hammond-Gabbadon C, Simmonds-Brooks P, Harris J, Martin H, Witter K, Bartlett R, Knight-Madden J, Asnani M. Telehealth: Navigating the COVID-19 Pandemic and Beyond: The Sickle Cell Unit Experience.
3. Knight-Madden J, Abar A, Smith M, Asnani M. Factors Affecting Age of Initial Specialty Clinic Evaluation Among Infants with Sickle Cell Disease in Kingston, Jamaica
4. Petermann-Rocha F, Rao N, Bala M, Parshad-Asnani M, Sifuna A, Yousafzai A, Ho FK, Ip P. Hygiene Practices and Early Childhood Development in the East Asia-Pacific Region: A Cross-Sectional Analysis.
5. Singh I, Asnani M, Harrison A. Health-Related Quality of Life in Adolescents with Chronic illness in Jamaica: Adolescent and Parent Report
6. Rankine-Mullings AE, Logan TM, Asnani M, Serjeant GR. Early splenomegaly and septicaemia in homozygous sickle cell disease: A birth cohort study.

Part of the team awarded J\$ 1.4 million (April 2023) from the Ministry of Health & Wellness, Jamaica for the project title: Access to Care for Sickle Cell Disease Management in Jamaica: Enablers and Barriers to Hydroxyurea Utilization. Monika Asnani, Jennifer Knight-Madden, Vanessa Cumming, June Harris, Julia Rowe-Porter, Shelly McFarlane.



## Most Outstanding Research Activity



### Dr. Abigail Harrison

Caribbean Institute for Health Research  
For her work in the field of Adolescent  
Mental Health



### Johns Hopkins University (JHU)/ UNICEF collaboration Project Title: Adolescent Mental Health in Jamaica: Hearing the Voices of the Youth

The summary of the project describes a need to better understand mental health issues and concerns through focus discussions involving adolescents from 13 countries: Belgium, Chile, China, the Democratic Republic of the Congo, Egypt, Indonesia, Jamaica, Jordan, Kenya, Malawi, Sweden, Switzerland and the United States of America.

These countries were selected to ensure geographic, economic and cultural diversity. For this work Dr Harrison research grant funding of \$5000.00 US to complete the require focus group discussion among adolescents in Jamaica. The report summarizes the results of these as analysed by Johns Hopkins University and the country partners leading to with publication Johns Hopkins Bloomberg School of Public Health and United Nations Children's Fund, On My Mind: How adolescents experience and perceive mental health around the world, JHU and UNICEF, Baltimore and New York, Available at <https://www.unicef.org/jamaica/reports/my-mind>. This project was completed in September 2022.

From her research activity in the field of adolescent mental health along with her collaborators, two commentaries and three research articles in the year under review. She also has one publication related to COVID-19 and adolescence.

#### COMMENTARIES

1. Gordon-Strachan G, Shiu RN, Smith J, Harrison A, Walker S. Gordon-Strachan, G., Shiu, R. N., Smith, J., Harrison, A., & Walker, S. (2023). Climate change in small island developing states: caring for youth's mental health.
2. Kanbur N, Harrison A, Galagali P, Di Meglio G. International Perspective

on Abortion Access for  
Improving Reproductive  
Rights and Freedom of Adolescents  
and Young Adults.

#### RESEARCH ARTICLE

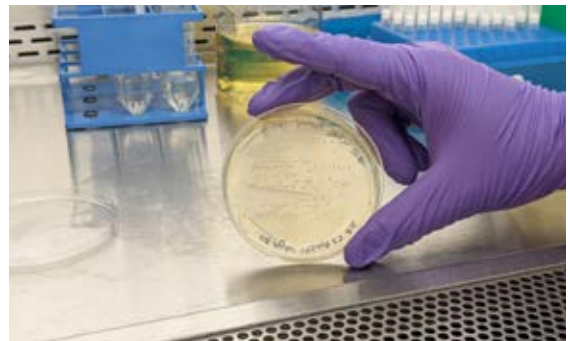
1. Abigail Harrison, Claudine Tyrill, Shanita Cousins, Kern Rocke, Maxine Gossell-Williams, Disparity between adolescents' health information needs and the information received in a middle-income country.
2. Thomas R, Smith J, Rocke K, James Bateman C, Harrison A. Adolescent connectedness and its impact on substance use in Jamaican adolescents. Current Psychology Accepted 16 November 2022.
3. Singh I, Asnani M, Harrison A. Health-Related Quality of Life in Adolescents with Chronic illness in Jamaica: Adolescent and Parent Reports.
4. Berry C, Melbourne-Chambers R, Harrison A, Anzinger J, Gordon-Johnson K, Varough D, Christie C. COVID-19 Clinical Characteristics and Outcomes in Children Aged <16 years Hospitalized at the University Hospital of the West Indies, Jamaica in 2020-2021.



## Research Project Attracting the Most Research Funds



**Dr. Joshua Anzinger**  
Microbiology



### Viral Surveillance and Discovery in Jamaica and the Caribbean Region

In the past decade, viral outbreaks have become common, both regionally and worldwide. A viral outbreak can quickly become a pandemic, as was recently seen for the COVID-19 pandemic that resulted in massive global disruption of society and millions of deaths, drawing attention to the importance of viral surveillance, especially in areas with limited resources.

On this backdrop, the University of the West Indies (UWI) has become an Abbott Pandemic Defense Coalition (APDC) site that provides surveillance for both known and unknown viruses. Through the collaborative research agreement with Abbott Laboratories, our UWI team can access the expansive commercial and research use only tests of Abbott Laboratories to identify persons previously infected as well as those actively infected with viruses.

Support of our APDC site from Abbott Laboratories also allows for genetic characterization by next generation sequencing of known viruses and identification of previously unknown viruses. Using these resources in Jamaica, we have performed the only COVID-19 serological prevalence study, the most comprehensive serological prevalence study for viral hepatitis, identified recent HIV and HBV genotypes and associated genetic antiviral resistance, determined dengue virus geographical spread to and from Jamaica, and identified viruses not commonly tested for and viruses without commercially available diagnostic tests in University Hospital of the West Indies patients with viral symptoms.

Data from the UWI APDC site provides policy makers with additional data to guide decision making and provides clinicians with laboratory testing previously unavailable. This ongoing project allows for more robust continuous viral surveillance and active preparation for identification of future viral infections that could lead to epidemics.





FACULTY OF  
**SCIENCE & TECHNOLOGY**  
2022 - 2023







## Best Research Publication



**Dr. Ainka  
Brown**  
Chemistry

**Dr. Nadale  
Downer-Riley**  
Chemistry

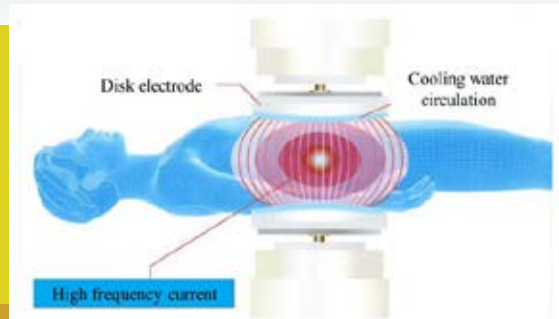
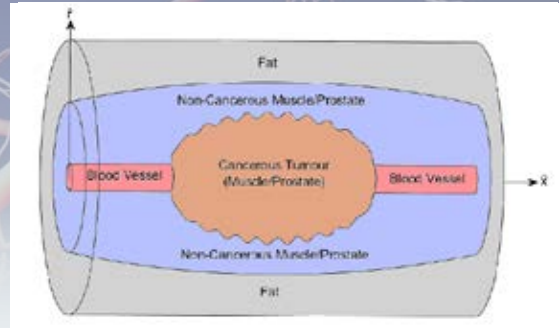
**Green Approach to 2-Substituted Benzo- and Naphthothiazoles via N-bromosuccinimide/Bromide-Mediated C(aryl)-S Bond Formation. *Molecules* 27, no. 22: 7876. <https://doi.org/10.3390/molecules27227876> IF 4**

2-Substituted benzo- and naphthothiazoles have been conveniently prepared from the intramolecular cyclization of phenylthioureas and activated thiobenzanilides or the coupling of isothiocyanates with amines under mild conditions using N-bromosuccinimide/tetrabutylammonium bromide in 1,2-dimethoxyethane (DME) under ambient conditions. The reactions produce moderate to excellent yields with good functional group tolerance and avoid the use of harsh thermal conditions, corrosive reagents, halogenated solvents, toxic metal salts, and expensive metal catalysts, and are amenable to preparations on a gram-scale.





**Dr. Victor Job**  
Mathematics

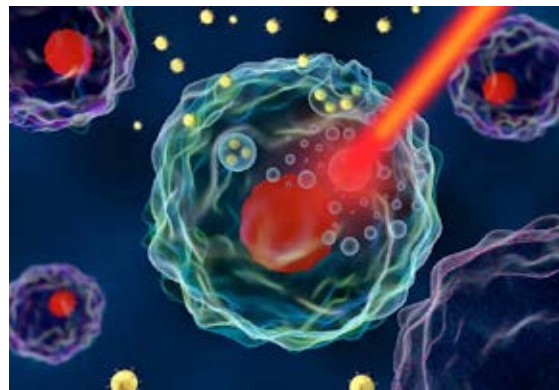


## Influence of alternating magnetic field on non-Newtonian blood perfusion and transport of nanoparticles in tissues with embedded blood vessel during hyperthermia

Ain Shams  
Engineering Journal  
(Elsevier), 2023,14 (1)

In this paper, we consider the impact of an alternating magnetic field on axisymmetric non-Newtonian nanofluid flow and nanoparticle (magnetite or iron-platinum) transport through a blood vessel and surrounding tissue during hyperthermia therapy.

The geometrical domain of the problem is divided into four regions; the blood vessel region, cancerous and non-cancerous muscle or prostate regions, and a fat region. Each of the tissue regions is considered to be a saturated porous material that admits fluid flow, which is given by the Darcy-Brinkman-Forchheimer model. The Quemada model is used to describe the non-Newtonian nature of blood in each region. The resulting unsteady coupled governing equations and corresponding boundary and initial conditions are numerically solved by using the finite element method with Taylor-Hood elements. A physically realistic range of parameter values are used when numerically solving the governing equations. Using the obtained numerical solution, the effects of magnetic field amplitude and oscillation frequency, inlet nanoparticle solid volume fraction and nanoparticle diameter on nanofluid velocity, temperature, pressure and nanoparticle distribution are examined. The results



determined that more heat generation is achieved with a larger volume fraction of injected nanoparticles and higher magnetic field amplitude. Also, heat generation is maximized by using nanoparticles with a diameter near 15 nm and a magnetic field oscillation frequency near  $4 \times 10^4$ . Thus, the present study provides an improved understanding of the factors influencing the effectiveness of intravenous magnetic hyperthermia cancer therapy in muscle and prostate tissues. The heat generated by the considered nanoparticles under an alternating magnetic field can be more accurately predicted and controlled using the two-phase non-Newtonian model of fluid flow and convective heat and mass transfer that is investigated herein.





**Dr. Victor  
Job**

Mathematics

**In this work, we investigate the oscillatory magnetohydrodynamic Couette flow of a fluid that is incompressible and viscous with variable physical properties along a partially-porous channel.**

The impacts of heat transfer and first-order exothermic chemical reaction within the fluid are incorporated. We describe the flow through the porous region using the Darcy-Brinkman-Forchheimer model, whereas uniform wall suction/injection is considered.

A numerical solution to the partial differential equations that model the transfer of heat and fluid flow is obtained using Galerkin's finite element technique. The impact of time  $t$ , Frank-Kamenetskii parameter  $\lambda$ , viscosity variation parameter  $b$ , suction/injection parameter  $S$ , and thermal conductivity variation parameter  $m$  on the flow velocity, wall shear stress, fluid temperature, and Nusselt number are investigated.

Five (5) Journal Articles

1. Sreedhara Rao Gunakala, Victor M. Job, P. Nagarani, P. Sreenivasulu and Judith N. Balkissoon: Numerical Study of Unsteady MHD Poiseuille Flow with Temperature Dependent Viscosity through a Porous Channel under an Oscillating Pressure Gradient, Palestine Journal of Mathematics 11 ( Special Issue III), 41-52, 2022. IF:0.476
2. S.R. Gunakala, Victor M. Job, P.V.S.N. Murthy, P. Nagarani, H. Seetharaman, B.V. Chowdary: In-silico investigation of intratumoural magnetic hyperthermia for breast cancer therapy using FePt or FeCrNbB magnetic nanoparticles. International Journal of Thermal Sciences, 2023, 192 Part A: 108405. IF:4.9

3. Gunakala, Sreedhara Rao and Job, Victor M. and Murthy, P. V. S. N. and Sakhamuri, Sateesh, Influence of alternating magnetic field on non-Newtonian blood perfusion and transport of nanoparticles in tissues with embedded blood vessel during hyperthermia, Ain Shams Engineering Journal (Elsevier), 2023,14 (1), 101831, <https://doi.org/10.1016/j.asej.2022.101831>.

4. Victor M. Job, Sreedhara Rao Gunakala, Rama Subba Reddy Gorla, O.D. Makinde, H. Thameem Basha: Unsteady convective ferrohydrodynamic flow MnZnFe<sub>2</sub>O<sub>4</sub>/FeCrNbBEG hybrid nanofluid in a horizontal channel with porous fins and semi-circular heaters, Journal of Magnetism and Magnetic Materials 571(1): 170584 (2023). IF:6.0

5. Gunakala, Sreedhara, Job, Victor, Alexander, Maraiika. (2022). MHD Slip Flow and Heat Transfer with Ohmic Heating between a Rotating Solid Disk and Stationary Permeable Disk. Engineering Innovations. 3. 1-12. 10.4028/p-d6t7o5. IF:

One (1) Conference Proceedings

1. Gunakala, S.R., Job, V.M., Veronique, J. (2022). Influence of Heat Transfer, Chemical Reaction and Variable Fluid Properties on Oscillatory MHD Couette Flow Through a Partially-Porous Channel. In: Rushi Kumar, B., Ponnusamy, S., Giri, D., Thuraisingham, B., Clifton, C.W., Carminati, B. (eds) Mathematics and Computing. ICMC 2022. Springer Proceedings in Mathematics & Statistics, vol 415. Springer, Singapore.

## Most Outstanding Research Activity



### Prof. Rupika Delgoda

Caribbean Centre for Research in Bioscience (CCRIB)

### Dr. William Irvine

Caribbean Centre for Research in Bioscience (CCRIB)

### Prof. Daniel Coore

Computing



## Exploration of psychedelic psilocybin-containing mushrooms

Psychedelic fungi are experiencing a surge in interest in recent years, particularly among patients under treatment for a variety of mental health issues. These include depression, anxiety disorder, alcoholism, and post-traumatic stress disorder.

Jamaica is one of few places in the world where research, cultivation and use of psilocybin is unrestricted. As such, there is a growing demand for clinical use of mushrooms in group retreats and psychiatric treatments, as well as a burgeoning industry related to cultivation and product development. Early in 2022, Field Trip Health Canada invested in a refurbished laboratory in Jamaica, on the Mona campus of the University of the West Indies, with a mandate to stably cultivate species of psilocybin mushrooms towards gaining insights into their biology and chemistry.

We have capitalized on this unique opportunity to cultivate within a legal framework and since then, we have cultivated 15 species of psilocybin mushrooms within the *Psilocybe*, *Panaeolus*, and *Gymnopilus* genera, and we hold one preliminary, international patent for a novel cultivation method for one species. Another species is being mass-produced, following full characterization for potency and safety (within the facility which is now GMP-certified), and it is being launched for clinical use by a leading UWI based psychiatrist. Additionally, we have, for the first time, developed three-dimensional in silico models for the four key enzymes responsible for the biosynthesis of psilocybin, which provides us with a powerful tool for generating substrates, inhibitors, and inducers for harnessing novel metabolites. Utilization of these two methods in parallel will provide a large repertoire of possible metabolites for screening.

This research activity in collaboration with a local business owner (Future Wellness) has led to the employment of 4 UWI graduates, supervision of several research projects (including one undergraduate), generated 2 peer-reviewed publications, 4 conference presentations (3 int'l), 1 patent (pending), collaborations through other campus laboratories (ICENS, PRL) and contributions to standards development in Jamaica, through the Ministry of Industry, Investment and Commerce.

Generated 2 publications, 4 conference presentations (3 int'l), 1 patent (pending) and miscellaneous contributions to standards development in Jamaica.

Support of 3 students and recruitment of 4 UWI graduates, and contribution to UWI collaboration through CCRIB (PRL, ICENS, etc.)

Establishment of a GMP-certified laboratory (only one in the country as far as we are aware) with respect to psilocybin mushrooms





## Research Project Attracting the Most Research Funds



**Dr. Andre Coy**  
Physics



### The Futures Forum on Learning: Tools Competition, Bridging Reading Instruction Gaps through The use of a Speech Technology-enabled Autonomous Reading Tutor (BRIGHT START) and JUMPSTART literacy tutor project Total grant value: USD211,969.76

BRIGHT START was one of only 30 worldwide teams selected from more than 800 teams from 60 countries competing for this rigorous competition. The competition was sponsored by Schmidt Futures, Ken Griffin, Walton Family Foundation, Overdeck Family Foundation, Siegel Family Endowment, and the Bill & Melinda Gates Foundation.

Addressing literacy challenges is an urgent problem which requires immediate, creative interventions to reverse the slide in attainment of the Caribbean's most vulnerable children. BRIGHT START is a fully functional automated reading tutor – driven by artificial intelligence that will enable vulnerable young children to access personalised reading instruction across the Caribbean. The solution aims to increase the number of young children that are reading before the age of 10. The tutor will supplement current reading instruction and provide targeted attention and feedback to underserved children who are not reached, because of large class sizes and difficult socioeconomic circumstances.

The solution's novelty arises from the application of speech technologies to Caribbean-accented language recognition and synthesis, and its adaptive selection of culturally relevant learning materials. Together with tailored interventions and intelligent feedback, these features are meant to increase the young student's interest in reading, with familiar-sounding voices and

scaffolded content. The automated reading tutor's capacity for deployment on different devices and platforms will further allow for wider, real-time access and greater uptake of its technology enhanced literacy tools and services in schools, communities and homes across the region.

The tool combines data-driven and theory-driven approaches and collects rich multimodal interaction data from users. Evidence-based, targeted interventions are therefore continually evaluated and prescribed by the tool for students as their learning paths are tracked and specific literacy challenges or reading miscues are diagnosed. Over time, with increased usage, the tool is designed to extract learning trends, preferences, behavioural nuances and generalisable interaction patterns for three user groups: learners, teachers, parents/guardians. Anonymised data sets, structured according to common learning analytics standards, will be shared with the learning engineering research community to aid broader study of how students in underserved and understudied communities learn, and how BRIGHT START impacts learner progress in these social settings. This will allow for insights to be drawn across settings about the value of culturally responsive interactive tutors, an area that is currently in its infancy.



## Research Project with the Greatest Impact on Policy



**Dr. Sherene James-Williamson**  
Geography and Geology

**Dr. Arpita Mandal**  
Geography and Geology

**Dr. Robert Kinlocke**  
Geography and Geology

**Dr. Thera Edwards**  
Geography and Geology

**Dr. Rose-Ann Smith**  
Geography and Geology

**Dr. David Smith**  
Institute for Sustainable Development

**Mrs. Shanice Bedward-Grant**  
Institute for Sustainable Development

### Connecting Communities for Climate and Disaster Risk Preparedness (CCC-DRiP) Initiative – Vulnerability Assessment Framework for Dominica

The project is part of a larger assessment for the island of Dominica. This component was carried out between August 2022 and July 2024 and identifies landslide and hazard hotspots.

Using these hot spots design a questionnaire and focus group to devise a social vulnerability survey. The findings indicate that the population of Dominica has significant exposure to hydro-meteorological hazards. The adaptive capacity of the communities and the people within them is enhanced by the social capital and the early warning system.

Dominica has been hit by several hurricanes and tropical storms in recent decades, notably hurricane David in 1979 (category 4), Dean in 2007, (category 1), tropical storm Erika in 2015, and Hurricane Maria in 2017. Landslides and flash flooding have caused severe devastation, resulting in deaths and the destruction of homes, public infrastructure, and crop production (particularly banana plantations). The most recent 2015-2017 events displaced nearly the entire island population, with 90% of the island's buildings damaged.

As a result, it is imperative to develop a climate change vulnerability assessment aimed at identifying flash floods and landslide hotspots in Dominica. This comprehensive study using physical mapping of landslides and flooding to determine vulnerable locations to ascertain community exposure and social vulnerability through questionnaire survey and focus group discussions. This data are integral components for the determination of the vulnerability indices for each community or community composite. All of which form part of the broader multi-hazard assessment in the country,



supporting the social vulnerability analysis and guiding policymakers in several essential aspects:

- i. Facilitating proactive decision-making regarding targeted disaster funding allocation to specific areas.
- ii. Identifying and understanding the root causes of vulnerability, encompassing socioeconomic and environmental factors, to allocate research funds effectively to vulnerable hotspot regions.
- iii. Determining the regions and economic sectors currently most affected by flash floods and landslides, as well as predicting potential changes in vulnerability over time.
- iv. Raising awareness among communities and stakeholders about the risks posed by climate change in their respective parishes, with a particular focus on the current and future vulnerability of economic activities and overall well-being.
- iv. Promoting the development of cost-effective adaptation policies, incorporating nature-based solutions, ecosystem-based adaptation, and strategies that account for future climate scenarios and current environmental and socioeconomic conditions of the population.



FACULTY OF  
**SOCIAL SCIENCES**  
2022 - 2023











**Prof. Lila Rao**

Mona School of Business and Management

**Dr. Maurice McNaughton**

Mona School of Business and Management



**Rao, L., McNaughton, M., & Verma, S. (2023). Towards a Scalable Digital Skills Training Architecture for Resource-Constrained Environments: The Case of Ayitic Goes Global in Haiti. Communications of the Association for Information Systems, 52, 966-987. <https://doi.org/10.17705/1CAIS.05245>.**

In developing countries which are marked by high unemployment and gender inequality, online education has the potential to change lives. However, the problem faced by many developing countries, is that traditional models, frameworks, architectures, and platforms for online learning do not lend themselves well to their context and, therefore, it is important to develop context-specific platforms.

This need for suitable platforms has motivated the research question that this paper seeks to address, that is: What is the appropriate architecture that supports learning strategies for delivering scalable digital skills training in a resource-constrained environment? We propose an architecture that was developed specifically for blended learning in resource-constrained environments and describe how a prototype for this was designed, built, and deployed in Haiti.

From a research perspective the proposed architecture and its implementation are a response to the call for more work in identifying ICT solutions and, more specifically, learning solutions for the developing context given its ongoing problem of resource constraints (e.g., intermittent



or no network connectivity). From a practical perspective our research addresses a very critical and real problem in the developing context i.e., preparing the youth, and even more specifically women, for job opportunities, by implementing an architecture that provides scalable digital skills training.

The implementation of the architecture to conduct successful digital skills training in the resource-constrained country of Haiti validates the practical opportunities of this research. The initial responses to the application of the architecture in Haiti, including the testimonials of the participants and the interest expressed by other countries of the region in adopting the proposed architecture have been extremely positive.



**Dr. Kavita  
Johnson**  
Government



**Johnson, K. (December 2022). Reorienting Foreign Policy: Caribbean-Japan Relations. Oasis. 37 (dic. 2022), 171–190. <https://doi.org/10.18601/16577558.n37.10>.**

This paper examines Caribbean-Japan relations since the 2000s showing how Caribbean states, due to their limited resource base, have been pursuing “unorthodox” foreign policies strategies, creatively using their value-based resources, such as votes and quality advocacy in international fora, in exchange for economic assistance from Japan.

In the context of small states in the international system, the article argues that having acknowledged their vulnerabilities due to their smallness, Caribbean states have shown resilience and resourcefulness in crafting these strategies as they seek to reposition themselves in the international system. The academic literature on the Caribbean’s relationship with Japan is limited. Most studies speak of Latin America and the Caribbean as one group with very few references to CARICOM or English-speaking Caribbean states. The paper helps to fill the gap in the literature on the Caribbean’s engagement with Japan as well as to add to the existing literature on the foreign policies of Caribbean states.







**Dr. Andre Haughton**  
Economics



**Haughton, A.Y. & Ivey, W. (March 2023)**  
**Overcoming Productivity Challenges in Small Countries, Lessons from Jamaica. Palgrave Macmillan.** <https://link.springer.com/book/10.1007/978-3-031-23301-2>

“Overcoming Productivity Challenges in Small Countries: Lessons from Jamaica” offers an in-depth analysis of the productivity issues that Jamaica and similar small economies face, aiming to bridge a gap in global research on labour and total factor productivity (TFP) within this unique context.

Published by Palgrave Macmillan in 2023, the book explores the drivers and solutions for productivity improvement across macroeconomic, microeconomic, and industry levels. Written to address critical national and regional development needs, it seeks to provide clear insights and actionable recommendations for policymakers, businesses, and academia, especially in small countries facing similar challenges.

The book’s ten chapters begin with a comprehensive comparison of productivity in the Caribbean, Africa, and Asia. The findings reveal that Jamaica ranks low, with only Haiti having lower productivity levels in the Caribbean, which highlights the urgency of addressing these productivity challenges. Chapter Two examines the macroeconomic drivers of productivity in Jamaica, identifying corruption and deficiencies in human capital as major obstacles. Further chapters provide industry-specific analysis, showing that many firms in Jamaica are under-employing labour by hiring more workers than necessary to achieve optimal output, thus demonstrating widespread labour underemployment.

In addition to identifying systemic issues, the book contributes valuable insights by separating labour productivity from TFP and analysing them



in-depth, a first for research of this nature globally. This distinction allows for a nuanced understanding of where Jamaica’s productivity issues lie, facilitating more targeted policy solutions. The chapters also examine critical topics such as wage alignment, the impact of corruption, and the effects of migration and brain drain on productivity. A comparative analysis of Mauritius and Jamaica further contextualizes Jamaica’s economic struggles and highlights a successful model of productivity growth in a similarly small economy.

The book’s conclusions offer a strategic pathway to enhance productivity through improved human capital, streamlined macroeconomic management, and targeted industry practices, ultimately supporting national and regional economic growth. By fostering a clearer understanding of the links between productivity, governance, and workforce utilization, this book provides essential knowledge and frameworks to guide policies aimed at overcoming productivity hurdles in small economies, ultimately contributing to socioeconomic development across Jamaica and the Caribbean.



## Most Outstanding Researcher



### Prof. Caryl James

Sociology, Psychology and Social Work



**Globally, the published research work on the psychology of people of African descent, is sparse and even far less in the Caribbean. It goes without saying that Caribbean people have faced unique experiences that differ to the White samples.**

*Yet much of the understanding and improvement of mental health is based on people outside of the Caribbean and an ethnic group that is not representative of the majority.*

As one of the leading scientists in Eating Pathology and mental health in the Caribbean, I have collaborated locally, regionally, and internationally to produce outstanding work that informs communities globally on the unique presentation and treatment modalities of mental illness in the region. My work deepens the research around cultural diversity in mental health, informing interventions to serve Caribbean people.

My research examines Caribbean peoples' worldviews on their diagnosis and management of illnesses. I advocate against imposing the Eurocentric ideals of a "one size fits all model" on Caribbean people, given their unique history, culture, and language; these will impact their illness presentation and treatment. My work helps dispel the myths that eating pathologies are non-existent in the Caribbean and serve to bridge the gap of the limited research on body dissatisfaction and eating pathologies in this context. The outcomes confirm that the prevalence rates of disordered eating behaviours in the Caribbean are comparable to developed states. Screening measures used to assess eating pathologies, well-being, and depression, designed in developed countries, must be evaluated for their applicability to our context; although adaptable, there were some limitations. These findings have implications for treating underserved and misunderstood sufferers seen locally and regionally and even when presented in Eurocentric societies. Further, while most of the research tends to focus primarily on pathology,

my collaborators and I have ventured on shifting the risk factors to examining protective and positive psychology. Subsequently the outcomes of our research have promoted body positivity among athletes as well as using supportive parent relationship in protecting the adolescent from poly substance use.

Tennant, I.A., Hull, D. M., Fagan, M., Casaletto, K.B., Heaton, R.K., James Bateman, C., Erickson, K., Forrester, T and Boyne, M (September 2022). Assessment of Cross-Cultural Measurement Invariance of the NIH Toolbox Fluid Cognition Measures between Jamaicans and the African Americans. *Journal of Applied Neuropsychology*. <https://doi.org/10.1080/023279095.2022.2126939>.

Thomas, R., Smith, J., Rocke, K., James Bateman, C., and Harrison, A (December 2022). Adolescent connectedness and its impact on substance use in Jamaican adolescents. *International Journal of Mental Addiction*. <https://doi.org/10.1007/s12144-022-04050-6>

Bateman, C. J., Bowie, J.-A., Coley, T.-A., Abel, W., & Mitchell, G. (2022). Factors of Self-Regulation and Substance Use Among Jamaican Adolescents: Does the Quality of Parent-Child Relationship Play a Role? *Caribbean Journal of Psychology*, 14(1), 113–138. <https://doi.org/10.37234/CJP.2022.1401.A005>

James Bateman, C, Powell, M., & Harrison, A (2022). Body dissatisfaction, disordered eating behaviours and skin bleaching among Jamaican adolescent males. *Caribbean Journal of Psychology*. Vol 14(1)

## Most Outstanding Research Activity



### **Dr. Michelle McLeod,**

Mona School of Business  
and Management



### **McLeod, M., Vaughan, R. Edwards, J. and Moital, M. (December 2022). “Knowledge sharing and innovation in open networks of tourism businesses”. *International Journal of Contemporary Hospitality Management***

The purpose of this research project is to examine the information flows, in terms of content and process, underpinning the sharing of knowledge by managers and owners. Such an examination reveals similarities and differences that will influence the generation and dissemination of knowledge used in tourism business operations and contribute to innovation.

This paper examines information flows within the theoretical and methodological framework of social network analysis. The findings were derived from a quantitative study of tourism managers and owners of a tourism hub in South-West England.

The main finding was that network structure characteristics determine the flow of information within owners’ and managers’ social networks. The owners of smaller businesses received information from several sources and, therefore, had fewer structural constraints and reported larger structural holes. In comparison, the managers had more brokerage opportunities to disseminate the information within their social networks.

This paper highlights knowledge sharing between tourism business managers and owners in an open network structure. First, an open network structure builds innovation through the provision of nonredundant information. This is determined through the effective size of structural holes and the dissemination of information through brokerage roles. Second, the

knowledge capability of a destination is built up through the social networking of managers and owners. The generation and dissemination of knowledge in a tourism destination are facilitated by the social networking activities of managers and owners.

Managers and owners of tourism businesses require knowledge through information to assist with innovative business practices. The practical implication of this is that the social networks of managers and owners have different network characteristics, and that these differences result in consequences for the innovation of business practices. Another practical implication relates to the importance of managers in knowledge dissemination based on having several brokerage roles in the tourism destination.

These findings are important because an understanding of social networks and the flow of information is one of the keys to determining the influences on knowledge sharing within tourism destination knowledge networks of owners or managers and their potential contributions to innovation.







INSTITUTE FOR  
**GENDER AND DEVELOPMENT  
STUDIES**  
2022 - 2023



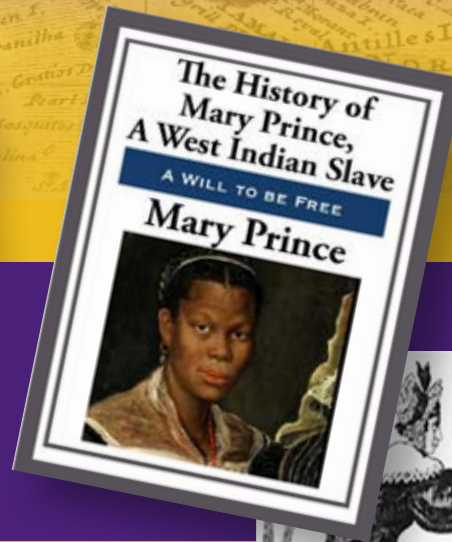






**Dr. Dalea Bean**

Institute for Gender and Development Studies, Mona Campus Unit



**Looking Back to Move Forward: An Historical Overview of Gender Based Violence and Intimate Partner Violence in Jamaica. Gender Dimensions of Violence Prevention. Edited By Dr. Ramona Biholar & Dr. Dacia Leslie, Routledge Press, 2022.**

It has been well established that the Caribbean region has been forged in violence. Intense violence was used to conquer and force compliance with oppressive systems. Violence was also finetuned as a tool of resistance to violations to body, soul and spirit.

Historians have traced the ways in which violence has been meted out to and from different races, classes and genders towards understanding the ways in which violence was interwoven into the systems that made the region what it is today. This article reframes much of the violence experienced as gender-based. Focusing on Jamaica, prevalent forms of gender-based violence during slavery and situate gender as being a critical tool in analyzing the interactions between the state and individuals as well as private and interpersonal relationships.

The work is part of a larger research project that contends that the past gives many clues to the foundations of contemporary cultures of violence and insights to current attitudes towards gender-based violence and intimate partner violence as well as points to the ways in which knowledge of past trends is a key tool to reverse existing trends and forms of violence on the country and region.







# MONA LIBRARY

2022 - 2023









Mr. Adrian  
Duncan  
Mona Library



### Augmented reality: Caribbean academic libraries of the future. Areas of need it seeks to satisfy

This paper seeks to deliver comprehensive insights for academic libraries in the Caribbean regarding the potential benefits of implementing Augmented Reality (AR). By exploring how AR can enhance service accessibility and user engagement, this study aims to provide a robust framework for libraries considering this innovative technology.

Through a detailed examination of AR's applications, such as interactive resource navigation and immersive learning experiences, the paper highlights how these advancements can significantly improve user interaction and overall service utilization within the academic community.

#### New knowledge created / knowledge gaps filled

This study serves as a crucial precursor to the broader discussion and eventual implementation of Augmented Reality (AR) in the Caribbean. It establishes a foundational framework for researchers and practitioners, highlighting the current shortcomings in AR application services, despite the region's growing technological advancements. By addressing these gaps, the paper aims to foster a more informed dialogue on the potential of AR to transform service delivery in various sectors.

#### Specific benefits to be derived / potential impact on society

The research highlights numerous benefits of developing augmented reality collections for Caribbean academic libraries. AR serves as a transformative medium for distance learning, providing interactive educational experiences and enhancing access to resources. By embracing AR, libraries can improve

inclusivity, adapt to community needs, and enrich the region's academic landscape.

#### Possible direct application of outcomes to industry / particular sectors

Integrating augmented reality collections at Mona Library will significantly benefit both the library and the wider community, with direct applications in various sectors. AR will enhance user engagement and service utilization, democratizing access to information and promoting lifelong learning for diverse populations. Additionally, this technology will drive modernization, fostering collaboration and innovation in service delivery. Ultimately, this initiative will position Mona Library and the University as key technological hubs, contributing to the Caribbean's intellectual and cultural development.

#### New partnerships being developed

Currently, there are possible collaborations with Libraries in the United States and Canada who are already using aspects of this technology in the daily operations of their library. Additionally, academic podcasts have sought interviews and discussion sessions to speak on issues impacting the progressive inclusion or lack thereof of these technologies in Caribbean Libraries.



**Miss Audrey Saddler**  
Mona Library



## The Impact of Technology on Information Provision in the Caribbean

- Purpose/Areas of Need

The article evaluates the current state of ICT in Caribbean libraries, specifically academic, public, and national libraries. It assesses how effectively ICT-based services and resources meet the needs of stakeholders.

- New Knowledge Created/Gaps Filled

It provides insights into the perceptions of both professional and non-professional staff regarding ICT, highlighting their skills and attitudes. Additionally, it addresses the impact of ICT on information provision in the English-speaking Caribbean, filling gaps in understanding the technological landscape. The article also enriches the literature available to Library and Information Science (LIS) students, offering data that informs discussions on library practices and technology adoption.

- Contributions to Society/National/Regional Development

The findings and recommendations aim to enhance the role of libraries in the Caribbean, encouraging adaptation to technological trends and ultimately contributing to regional development and improved access to information for communities.







**Dr. Debra Ferdinand-James**  
School of Education



**Mrs. Karlene Nelson**  
Mona Library



**Mrs. Beverly Eccleston-Burte**  
Mona Library



**Ms. Yolanda Tugwell**  
Mona Library



## Virtual Reading Room Research Support at a Caribbean University: Piloting Innovation in Supervising TVET Graduate Students

### PURPOSE

The research addresses a pressing need for more effective support for graduate students, especially in areas requiring advanced research skills, such as Leadership in Technical and Vocational Education and Training (TVET) and Workforce Development (WFD). Its core purpose was to enhance students' research experiences by establishing a Virtual Reading Room (VRR) in collaboration with librarians at a Caribbean university. This VRR was specifically designed to support TVET graduate students' directed reading and writing hours through a comprehensive collection of digital resources to include a TVET library research guide and library instructional sessions. This collective approach to VRR research support allowed for making the research process smoother and more accessible.

### GAPS FILLED

One of the main gaps this research seeks to fill is the limited access students often have to structured, accessible digital resources that align directly with their field of study. By introducing the VRR, the university library offers a curated digital space where students can readily access library research guides on essential topics like thesis preparation, research methodologies, and databases for journal articles at a time outside of regular library hours. This innovation represents a significant step forward in supporting the educational journey of graduate students, helping them to independently navigate the complex research landscape and boosting their research confidence through interaction and one on one with a trained Librarian.

The collaborative approach of this research is another important contribution, bridging the gap between academic supervision and library support. The study shows that librarians are valuable partners in graduate supervision, not only providing resources but also co-creating learning experiences with



research supervisors. This collaborative model represents a valuable innovation in educational practice, positioning the library as an essential partner in the academic journey when Librarians are embedded and enhancing students' access to targeted resources and expertise.

### CONTRIBUTIONS TO SOCIETY

For the Caribbean region and beyond, the findings contribute valuable insights on the benefits of digital learning resources and can influence policy on how graduate supervision is structured, especially in TVET fields. By formalizing the library's role in graduate education through innovations like the VRR, institutions can improve the overall quality of academic support and potentially increase research outcomes. This project supports not only the university but also the broader goals of national and regional development, emphasizing the importance of well-equipped graduates in TVET fields, which are crucial for workforce development and economic progress in the Caribbean.







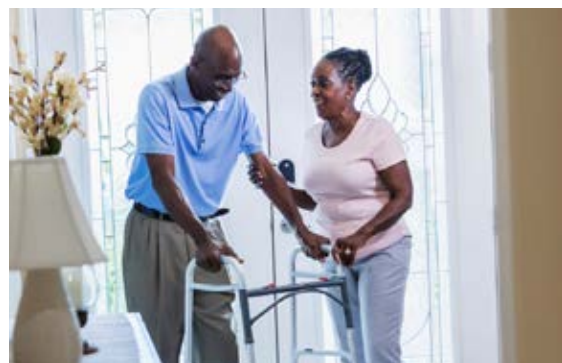
# OFFICE OF THE PRINCIPAL

2022 - 2023









**Dr. Douladel Willie-Tyndale**

Mona Ageing and Wellness Centre

**Odle-James, T., & Willie-Tyndale, D. (2023). Companions' Chronicles: Experiences of Home Care Workers in the Community Elder Care (Companion) Program in Barbados. Journal of applied gerontology: the official journal of the Southern Gerontological Society, 42(4), 589-596. <https://doi.org/10.1177/07334648221143611>**

As populations age, policy makers and service providers must meet the emergent care needs with viable and relatable solutions. Home care workers significantly support healthy ageing and are vital to efforts aimed at preventing or delaying institutionalization in the older adult population. In this paper, the authors present findings of a qualitative study in which one-on-one interviews were conducted with 14 home care workers assigned to the Community Elder Care (Companion) Program (CECP) in Barbados.

Workers in this program visit older adults in their homes for a few hours each day providing companionship and assisting with small household chores, short errands, and minimal personal grooming. The purpose of the study was to understand the experiences of members within this category of the home care workforce (Companions) to inform a review of the CECP one year following its inception. It also sought to provide information for policy makers and program planners from other countries in the Caribbean, including Jamaica, which have similar socio-cultural and demographic realities.

The paper adds to the home care literature, specifically on initiatives to support ageing in place in developing countries. It adds to the discourse on home care workforce recruitment and retention as globally this workforce battles low remuneration and high turnover rates with workers struggling to balance their love for working in the field with the realities of economic hardship. The paper is timely as it highlights some training, work scope, and compensation considerations for countries that opt to include the provision of companion services as a way to address the burgeoning health and social problem of loneliness in the older adult population.

As Jamaica, Barbados, and the rest of the Caribbean continue to address the many implications of population ageing, this paper provides empirical data which can be used to support policy development.



**Dr. Shinique Walters**  
Government

**Mr. Roger Bent**  
Student Services and Development

## Virtual Community Outreach and Its Impact on Students During the COVID-19 Pandemic at the University of the West Indies, Mona

The purpose of this research is to investigate how The University of the West Indies, Mona, adapted to student engagement and community-based activities during the COVID-19 pandemic. Specifically, it examines the impact of virtual outreach programs on students' development and learning, highlighting the ways co-curricular activities can support student growth and retention even in a virtual environment. The study utilized Kolb's Experiential Learning Theory to analyze how students progressed through stages of experience, reflection, conceptualization, and experimentation in their online engagement.

From a societal perspective, this research contributes valuable insights into the adaptation of student services in response to crises, particularly in maintaining social and educational connections in virtual settings. The proposed model aims to help student services practitioners enhance engagement and social learning within online communities.

By exploring the challenges and successes of virtual student engagement, this study offers a framework that could inform universities globally on integrating technology into student services, strengthening community bonds, and fostering student retention even when physical interaction is limited. This adaptation is essential for resilient educational systems capable of maintaining student involvement and support amid future disruptions.











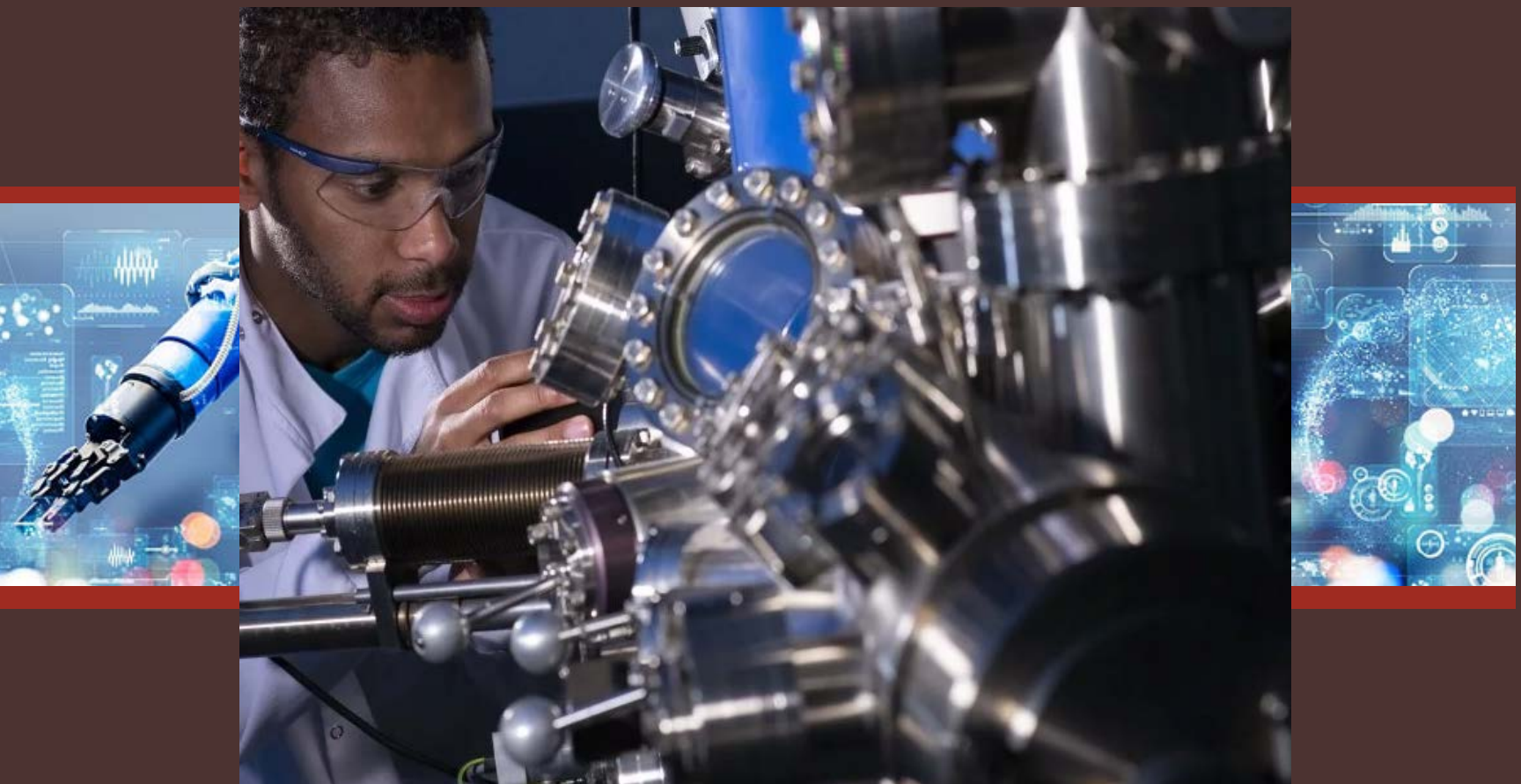
U W I M O N A

**PRINCIPAL'S RESEARCH AWARDS**

2 0 2 3 - 2 0 2 4



FACULTY OF  
**ENGINEERING**  
2023 - 2024









## Dr. Kolapo Alli

Electrical and  
Power Engineering



**Alli, K. (2024). An Extended Multi-objective Multi-area Emission Economic Dispatch Problem Integrating Random Wind Power Units Using a Semi-definite Programming Method. West Indian Journal of Engineering, Vol. 47, No. 1, July 2024.**

<https://journals.sta.uwi.edu/ojs/index.php/wije/article/view/9044>

This research proposes a Semi-definite Programming (SDP) based approach for optimal placement and capacity determination of distributed generators in a distribution system. The proposed programming is tested on some IEEE test systems for optimal locating and sizing distributed generators.

The size of the distributed generator is known by transforming the active power loss and constraints into linear matrix forms and using SDP software. During the economic dispatch of power systems incorporating wind power units, the unpredictable nature of wind energy is a vital issue that affects the optimal operation of the system. Hence, this study proposes to solve the formulation of the MAEED problem incorporating stochastic wind power units using SDP technique.

The contributions of this study are to analyse the few techniques which have been employed for solving stochastic multi-objective economic dispatch problems. However, most of these methods are stochastic in nature which are inadequate in solving multi-area stochastic power systems problems and problems integrating wind power units. To overcome these problems



of randomness in the economic dispatch, the SDP approach is proposed to handle difficulties in multi-objective MAEED formulation. Hence, this study will provide information on the economic dispatch of electric power generation when renewable energy sources are incorporated into the power system.

This will assist power system administrators to come up with an improved decision making that would lead to a more efficient optimum power dispatch. The proposed method is tested on IEEE two-area 6 units, four-area 40 units, standard two-area 40 units and modified two-area 40 units with three (3) wind parks networks respectively to validate its effectiveness.







FACULTY OF  
**HUMANITIES AND EDUCATION**  
2023 - 2024









**Dr. Rachel Moseley-Wood**  
School of Education

Moseley-Wood, R. (2023) **“This is Jamaica”: Circumscribed Citizenship in Esther Figueroa’s I Live for Art (2013) and Fly Me to the Moon (2019), Journal of West Indian Literature 32.1, 185-204.**

Well versed in theory and historical background, the author explores how neoliberal policies and the failure of successive political administrations within Jamaica to protect local interests have led to environmental crises that threaten citizens’ well-being and support the erosion of their rights. The author uses the concept of “compromised citizenship” to reflect on the work of Esther Figueroa, Jamaican filmmaker and environmental activist, who defines the environment as the critical arena where relationships of power, equality, and justice are played out. In particular, the analysis focuses on Figueroa’s short film *I Live for Art* (2013) and the feature documentary, *Fly Me to the Moon* (2019).

The article opens new insight about the artistic critique of environmental and social crises in Jamaica and the author elegantly adapts her critical tools for analysis of two distinct nonfiction films. *I Live for Art* is specific in its focus and looks at the Palisadoes Shoreline Protection and Rehabilitation works project as an example of the Chinese immersion in and dominance in the Jamaican political economy. The analysis of the film reveals how local elites profit from the neoliberal collaboration with China whose economic and political strategies represent just another form of neo-colonial exploitation. In contrast, *Fly Me to the Moon* addresses a form of external investment that began in the colonial period. According to the author’s analysis, the film tackles the more complex task of providing a comprehensive and historical account of the global aluminium industry and its colonial and neocolonial



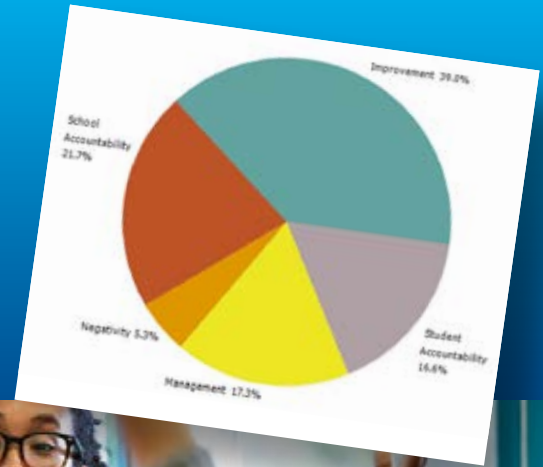
development in Jamaica. The film reveals the erosion of citizens’ rights as one of the consequences of exploitative economic practices and, not surprisingly, Figueroa concludes that external investment represents continuities of the colonial project.

The argumentation of the article is transparent, clear and persuasive. The complex and critical issues presented by Figueroa’s films are discussed, analysed and evaluated in a very convincing way. The author shows good knowledge about the environmental activist film scene, provides historical knowledge about the aluminium industry in Jamaica and exposes the needs and demands of industrialized nations and transnational companies that stand behind economic structures of exclusion in Jamaica. The article addresses very important aspects of the link between environmental and social crises, and manages well to combine social critique and historical framing with concise film analysis. In total, the article represents very solid and critically engaging scholarship.





**Dr. Clavia Williams-McBean**  
School of Education



## Conception vs Practice: An Exploration of Select Teachers of English Conception and Use of Assessment in Jamaican Secondary Schools. *Education Inquiry*.

<https://doi.org/10.1080/20004508.2024.2324517>

Assessment is increasingly being recognised as integral to effective teaching and learning. However, the effectiveness of assessment depends on teachers' beliefs about assessment and how they use assessment data (for formative or summative purposes). Beliefs and uses aligned with the formative purposes of assessment have been reported as improving student achievement and motivation, especially for low-achieving students (William, 2013).

The reverse has also been reported. Previous studies have also highlighted the critical importance of understanding teachers' beliefs as researchers and policymakers attempt to improve or transform classroom assessment practices (Brown et al., 2011; Ma & Bui, 2021; Opre, 2015).

Moreover, although teachers' conceptions and use of assessment have been researched in other countries, additional studies are needed on the relationship between conception and use (Opre, 2015), and it has not been researched in Jamaica. Furthermore "context, culture, and local factors shape teacher conceptions of assessment" (Brown et al., 2019, p. 1). Therefore, research findings from other contexts should not be automatically transferred. Therefore, when I decided to investigate how formative assessment could be more effectively infused into the teaching of English in Jamaican secondary schools, I decided first to understand and describe the existing nature of assessment in these schools. This qualitative study interviewed and observed 32 teachers of English in four types of secondary schools in



Jamaica to ascertain their conception of assessment and determine the level of congruence between their reported conception and observed uses of assessment. The findings revealed that teachers predominantly conceived assessment as being for both formative (improvement of teaching and learning) and summative (accountability) purpose while predominantly using it to manage student behaviour and improve their achievement. There was also an overwhelming grading culture that forced teachers and students to focus on the grading more than the learning function of assessment because of mandated tests and quotas of grades from school and national administrators.

The findings indicate that policy changes are needed at the national and school levels to support the formative use of assessment even while focus is placed on the formative use of summative and traditional assessment. The findings are important especially given the need to improve students' achievement in English and repeated reports from the National Education Inspector that a common problem identified in schools that are classified as unsatisfactory is absence of the formative use of assessment.



**Dr. Maite Villoria**

Modern Languages and Literatures

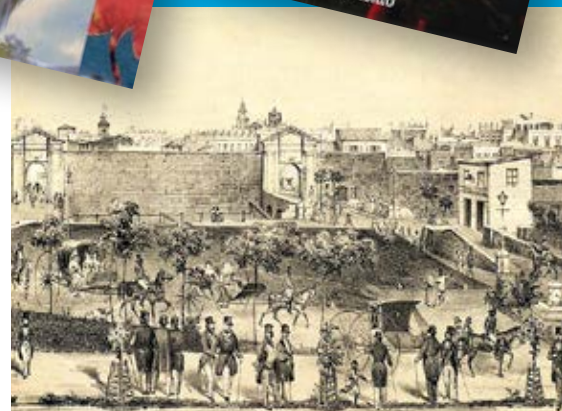


**Transculturación e identidad cultural cubana: el eslabón perdido en *Monkey Hunting* de Cristina García y *La isla de los amores infinitos* de Daína Chaviano [Transculturation and Cultural Cuban Identity: The Missing Link in *Monkey Hunting* by Cristina García and *La isla de los amores infinitos* by Daína Chaviano]. *Cuadernos de Literatura* 27.**

DOI: <https://doi.org/10.11144/Javeriana.cl27.tice>

The article was published in *Cuadernos de Literatura*, a major Latin American Studies journal. It analyses the transcultural dimensions of two contemporary novels: Cristina García's *Monkey Hunting* and Daína Chaviano's *La isla de los amores infinitos*, works which strive to make visible forms of migrant experiences that fall 'in between' the sometimes Manichean dichotomies imposed by post-colonial (and post-Revolutionary) narratives of Cuban national identity.

The article explores the notion of 'in-betweenness' in García's *Monkey Hunting*, and the 'acculturative stress' that the novel's protagonist experiences as he finds himself living between the impossibility of assimilation and the impossibility of a return to origins. This aspect of the article speaks to contemporary literary-cultural studies on the hidden 'injuries' of race and class that inform everyday experiences of so-called 'multiculturalism', and it adds new depths to our understanding of now ossified discourses of post-Revolutionary 'hybridity'. On the other hand, through a close reading of *La isla de los amores infinitos*, the article also presents a detailed analysis of the multi-directional exchanges, inside and outside Cuba, between Afro-descendant, Sino-descendant, and Hispanophone diasporic subject.



The analysis draws on theoretical paradigms (Said, Babha, Bordieu, Lacan, Hall) as well as Angel Rama and Fernando Ortiz's notion of 'transculturation'. The article is also informed by historical research on Chinese migration to Cuba and the eclipse of Sino-Cuban experiences over the last century, engaging with the history of Chinese migration to Cuba after the Opium Wars of 1842 and 1860. In addition, the article discusses the anti-Black logic behind the use of Chinese labour and the Sinophobia that informs seminal Cuban writings. Finally, the article is also an exercise in comparative literary criticism, paying attention to formal and linguistic elements of the two novels.

In conclusion, "Transculturación e identidad cultural cubana" makes an important contribution to a growing body of international research on Asian-Latin American cultural relations, and offers a rigorous balancing of theory and close reading.



## Most Outstanding Researcher



### Prof. Carmel Roofe

School of Education



**For research on teacher education and curriculum with output including two single-authored articles and 4 co-authored peer-refereed articles over 2023-2024.**

Curriculum is envisioned as ever evolving from a world of events that teachers and students experience based on their individual situatedness. These experiences converge in classrooms and influence teaching and learning theory, policy and practice.

Understanding these experiences is important for quality teacher preparation, curriculum theory, policy, and practice, strategies used to influence teaching and learning, and quality school leadership. Drawing on the author's individual situatedness and cognition and collaborating with colleagues from across the globe this body of work utilises novel approaches to understand issues relating to teachers, learners, teacher educators, and school leaders. The body of work produced challenges traditional notions of how such issues are examined and offers new lens through which to examine these issues. The significance of such body of work lies in the following areas.

#### Teacher leadership

Teacher leadership is an under-researched area within the Jamaica context, and represents an opportunity to re-imagine school cultures, and to consider a range of factors that impact the teaching profession and contribute to overall school improvement.

#### The inextricable connection between self and curriculum

Teachers' understanding of their personal histories is beneficial to how they conceive their roles as teacher professionals. This is an often-overlooked area of teacher preparation, yet it holds much significance for building anti-colonial futures through curriculum conversations.

Understanding adult learners in higher education through photovoice

Contextualised epistemologies and ways of empowering adult learners are crucial for aiding adult learners navigate their journey in post-colonial higher education contexts. Research in this area adds to literature on the transformative power that resides in involving adult learners in research on their everyday habits and practices.

#### School leadership

School leadership is an important factor in student achievement and learning outcomes and has garnered the attention of policymakers globally. Such research therefore is critical for understanding how school principals make sense of their leadership practices and how they use this knowledge to respond to their school contexts and shifting socio-cultural dynamics.

#### Implementation of the Alternative Pathway to Secondary Education (APSE)

Since the implementation of APSE curriculum in Jamaican secondary schools there has not been any evaluation of the curriculum. Research on this area of the curriculum offers a starting point for understanding the experiences of teachers, factors which influence the success of this curriculum, and offers recommendations on strategies for implementing reforms of such nature.

## Most Outstanding Research Activity



**Dr. Stanley Griffin**

Library and Information Studies



For research on memory and archives, resulting in peer-refereed research output over 2023-2024 consisting of 3 book chapters and 1 article, along with several non-peer-refereed publications, 5 specially invited and keynote lectures, and several more presentations and workshops.

Focusing on the Eastern Caribbean and Jamaica as discussion points, the several book chapters, articles, keynote presentations and workshops illustrate the ways in which Caribbean cultural practices are rooted in memory creation, documentation and preservation ideals.

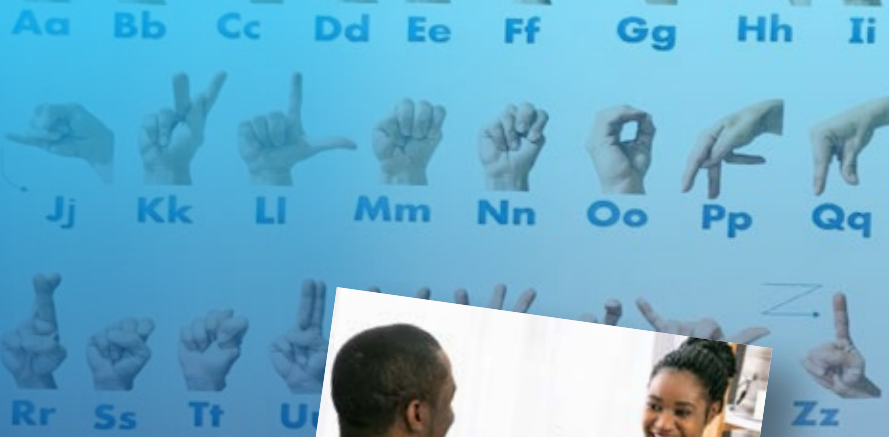
The research activities highlight the organic documentary responses to historical, socio-economic and political upheavals in ways that are culturally relative, yet relevant, and vital for safeguarding and preserving Caribbean community memory. Finally, the works encourage users to respectfully acknowledge and view cultural practices as information sources, confirming community cultural practices are valid sources for teaching, learning and research.





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

Alphabet Sign Language



### Dr. Keren Cumberbatch

Language, Linguistics &  
Philosophy



### A Communication Toolkit for Ministry of Justice Service Provision to Deaf Communities

Under the umbrella of the Social Justice project funded by the United Nations Development Programme and Global Affairs Canada, this communication toolkit for Ministry of Justice (MOJ) staff in their service provision to Deaf citizens was designed using a mixed methods study as a measure to counter the linguistic injustice suffered by Deaf Jamaicans.

The Government of Jamaica operates using a majority language, English, which limits information accessibility to users of other languages, such as Jamaican Sign Language (JSL). Addressing the inequality this hindered accessibility creates is the purpose of the communication toolkit. More importantly, the toolkit aids Jamaica in attaining Sustainable Development Goals (SDG) targets, viz.: Target 10.2, Target 16.3 and Target 16.10, which focus on inclusion, the rule of law and equal access to justice, and public information access and protection of fundamental freedoms, respectively. These targets align with mandates in Articles 9, 13 and 21 of the United Nations Convention on the Rights of Persons with Disabilities (UNCPRD), which are satisfied by this communication toolkit.

This MOJ communications toolkit is bilingual to serve two language user groups: MOJ employees using English and Deaf Jamaicans using JSL. The e-book format will facilitate easy dissemination across the MOJ and access for Deaf customers. Key dialogue elements used by MOJ customer service representatives are provided in JSL. Along with best practice guides for serving deaf customers, information normally provided as pamphlets to hearing citizens is presented as video brochures in JSL explaining MOJ services and processes. The JSL law dictionary in the toolkit, with over 250 JSL equivalents of common legal terms and phrases, aids attorneys in their communication with Deaf clients and Deaf clients in understanding legal terminology.



The MOJ has adopted the communications toolkit and is in the process of preparing it for further dissemination through its website and all offices. MOJ staff in various parishes expressed gratitude and a sense of empowerment to serve deaf citizens. The UNDP and Global Affairs Canada commended the toolkit and the UNDP sees its potential as a model across CARICOM and Latin America. Deaf Jamaicans described the toolkit as an awesome and essential resource to increase information access and societal awareness of inclusion and accessibility. Deaf citizens also found the toolkit to be informative as they learnt about the law through the video brochures and the JSL Law e-dictionary.

Deaf citizens now have less inequality in access to legal services in Jamaica.



FACULTY OF  
**LAW**  
2023 - 2024









**Dr. Celia  
Blake**  
Faculty of Law



**Law and Language**  
**“Giving expert evidence in connections with  
Caribbean English vernacular languages:  
Lessons from US v Kwame Richardson”**  
**(Language Science Press, 2023)**

This chapter discusses the legal rules governing expert evidence and how they may interact with the provision of linguistic evidence, particularly relating to speakers of Caribbean English vernacular languages, sometimes called Caribbean English creole languages.

The case of United States v Kwame Richardson, in which the defence had initially planned to rely on expert linguistic evidence concerning a speaker of Guyanese, is deployed as a launch pad to the discussion. Although the expert’s report was not ultimately relied upon by the defence in the court proceedings, the discussion indicates the legal roadblocks that may defeat the use of potential testimony by a language expert. The article stresses that it is important for linguists offering their expertise in forensic contexts to be acutely aware of the legal rules in order to meet, as far as possible, likely challenges to their methods and expert report or testimony. As the article shows, these challenges may include, in some instances, (mis)conceptions on the part of legal professionals about language in general, and the nature of Caribbean English vernaculars in particular. Thus, the article addresses the intersections between law and language.

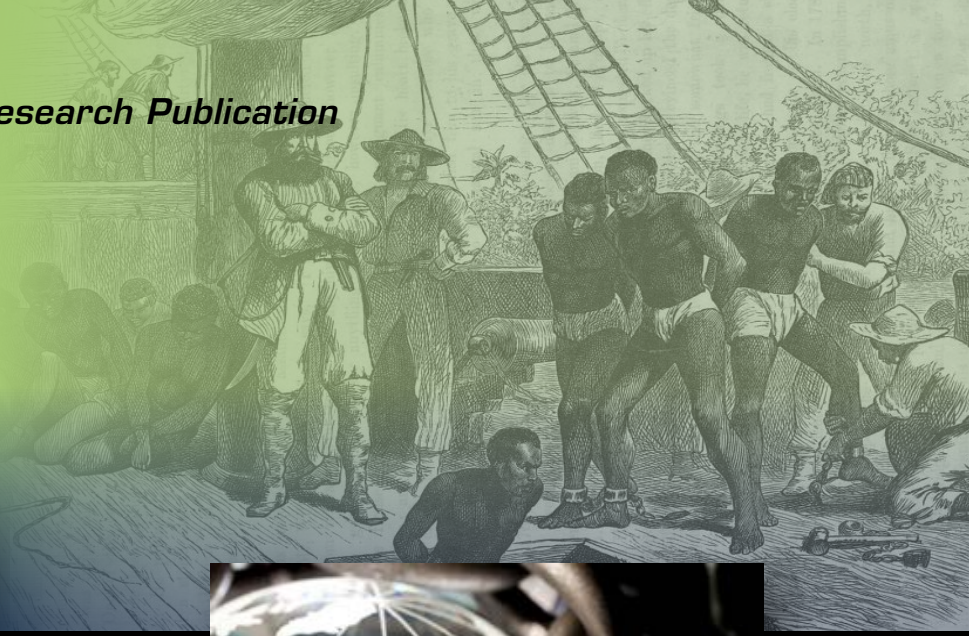


<b>Dat</b>	<b>That</b>
<b>Dis</b>	<b>This</b>
<b>Den</b>	<b>Then</b>
<b>Ting</b>	<b>Thing</b>
<b>Tree</b>	<b>Three</b>





**Dr. Ramona  
Biholar**  
Faculty of Law



**Human Rights and Reparatory Justice  
'Demanding Accountability: A Human Rights  
Approach to Reparatory Justice' in Verene A.  
Shepherd, Henderson D. Carter and Ahmed N.  
Reid (eds.), *Interrogating Injustices* (Ian Randle,  
2023)**

This article is concerned with locating calls for reparations for slavery in a human rights framework in order to demand accountability for colonial wrongs that still affect the present of Caribbean societies.

To that end, it highlights the enduring debilitating effects of colonialism and slavery on contemporary realities, and discusses the contestations of reparations for slavery in international law and scholarship, reflecting on the challenges posed and the possibilities afforded by both international law and its human rights branch. It also focuses on the potentiality of an unassuming human right in the context of reparations for slavery – the right to development.

The article particularly draws novel connections between reparations and the right to development to propose a conceptualisation of reparations for slavery in relation to this right, which ascertains that present violations of individual and collective human rights are consequences of historical systems and processes of apartheid, racism, and racial discrimination, colonialism, foreign domination, and occupation.



Although less discussed especially in the human rights system in the Americas, the article argues that the right to development is particularly important for Caribbean reparatory justice as it offers a rights articulation that tackles the root causes of present inequalities and forms of discrimination, demands accountability for the harms caused by colonial politics of control and racial.

**Bios:**

## Most Outstanding Researcher



**Prof. Tracy Robinson**  
Faculty of Law



### Family Law

**'Remaking Family Property Law in the Anglo Caribbean'** in M. Briggs, A. Hayward, *Research Handbook on Family Property and the Law* (Edward Elgar Research Handbook Series, 2024)

### Constitutional Law

'Foreign Judging and Securing Judicial Independence in the Anglophone Caribbean' in Anna Dziejic and Simon Young (eds), *Handbook on Foreign Judges* (Cambridge University Press, 2023)

### Human Rights Law

'Study on the Impact of the UN Human Rights Treaties on Jamaica', chapter in C. Heyns, F. Viljoen, R Murray, *The Impact of the United Nations Human Rights Treaties on the Domestic Level* (Brill, 2023) (and collaborators)

Jamaica is a small-island developing state with a population of nearly 3 million.<sup>1</sup> Jamaica has a Human Development Index value of 0,726 (2019), which means that it is in the high human development category.<sup>2</sup> Significant inequality exists in Jamaica and the number of Jamaicans living in poverty increased to approximately 19 per cent in 2017.<sup>3</sup> Jamaica's colonial history is mired with grave human rights abuses, including the decimation of the indigenous population and African slavery. In 1962 Jamaica became an independent nation and a member of the British Commonwealth. Human rights were guaranteed in Chapter 3 of the independence Constitution of 1962, which covered largely civil and political rights and established a parliamentary democratic system, which is also a constitutional monarchy.

There are a number of civil society organisations (cso s) in Jamaica, some of which promote human rights. However, their efficacy is undermined by a



lack of resources. Jamaica reached a major milestone in 2011 when it replaced Chapter 3 of the independence Constitution with a Charter of Fundamental Rights and Freedoms, broadening the scope of human rights, including some social and economic rights.<sup>4</sup> However, the 2011 Charter contains provisions that significantly limit judicial review of laws in place before 2011 dealing with sexual offences, obscene publications, offences related to the life of the unborn, and marriage.<sup>5</sup> Charter provisions also seek to reverse progressive human rights rulings of the Judicial Committee of the Privy Council (jcpc) in relation to Jamaica dealing with undue delays in carrying out the death sentence and inhumane conditions of detention.<sup>6</sup> The jcpc, based in London, serves as Jamaica's final court of appeal.



## Most Outstanding Researcher



**Dr. Ramona Biholar**  
Faculty of Law



**For research on teacher education and curriculum with output including two single-authored articles and 4 co-authored peer-refereed articles over 2023-2024.**

Biholar, R. and Leslie, D. (2024) *Gender-Based Violence in the Global South: Ideologies, Resistances, Responses, and Transformations* (2024)

This book addresses the existing gaps in relation to the ways in which gender-based violence (GBV) in the Global South is discussed and portrayed in mainstream academic literature. It amplifies the different voices and experiences of those facing GBV in the Global South.

It explores the localised ways in which marginalised individuals design modes of coping with and address GBV, including cultural interpretations, and artistic and faith-based expressions.

'Explorations of Gender-Based Violence in the Global South: Introduction' in *Gender-Based Violence in the Global South: Ideologies, Resistances, Responses, and Transformations* (2024)

This chapter critically addresses the concept of Global South. It explains how the specific country-based studies comprised in the volume 'Gender-Based Violence in the Global South' evoke an intimate critique of the vulnerability produced and reproduced through gender-based violence in an already profoundly vulnerable context – the Global South. Inevitably, the discussion also raises questions about the place of gender-based violence and the specific histories intertwined with the current manifestations of gender-based violence in the Global South.

"Unveiling 'Everyday Harm': Mindie Lazarus-Black's Domestic Violence, Court

Rites, and Cultures of Reconciliation' in Margaria, A. and Vetter, L. (eds.), *Leading Works in Law and Anthropology* (2024)

This chapter sheds light on the interconnection between Law and Anthropology, locating the discussion in the Caribbean and showing the relevance of this interconnection for the Caribbean region. Specifically, the chapter centres on law's power, as well as its limitation to secure protection for victims/survivors of domestic violence (DV) in the Caribbean postcolony by referring to the anthropological work of Mindie Lazarus-Black in Trinidadian courts, and especially to the dominant conceptual and analytical frames of court rites, time, cultures of reconciliation, and structural deflection.

'Demanding Accountability: A Human Rights Approach to Reparatory Justice' in Verene A. Shepherd, Henderson D. Carter and Ahmed N. Reid (eds.), *Interrogating Injustices* (2023)

This article is concerned with locating calls for reparations for slavery in a human rights framework in order to demand accountability for colonial wrongs that still affect the present of Caribbean societies. To that end, it highlights the enduring debilitating effects of colonialism and slavery on contemporary realities, and discusses the contestations of reparations for slavery in international law and scholarship, reflecting on the challenges posed and the possibilities afforded by both international law and its human rights branch. It also focuses on the potentiality of an unassuming human right in the context of reparations for slavery – the right to development.

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



**Dr. Marcus  
Goffe**  
Faculty of Law



**Reparatory Justice  
“Rastafari Ganja Reparations: A Caribbean  
Decolonial Imperative” (Caribbean Quarterly,  
2023)**

THE RASTAFARI COMMUNITY IN JAMAICA WAS FEARED, actively suppressed, and distinctly targeted by the government of Jamaica during its formative years.

Community leaders were repeatedly harassed, charged, convicted, and often spent many years at a time either in prison or mental hospitals, primarily on the basis of either the anti-ganja provisions of the Dangerous Drugs Act 1948 (for possessing or smoking ganja, or possession of a chillum pipe) or the treason and sedition laws (for declaring His Imperial Majesty Emperor Haile Selassie I to be the King of kings and publicly denouncing King George VI of Great Britain, the coloniser), the latter often landing community leaders in asylum upon conviction.<sup>2</sup> Notorious for the use of ganja, many Rastafari communities and thousands of community members were subject to targeting and criminal prosecution.<sup>3</sup> Throughout the state’s assault on Rastafari existence and ideology, ganja was one of the main legal bases used against the community.



**Research Project with the Greatest  
Impact on Policy**



**Prof. Stephen  
Vasciannie**  
Faculty of Law

**Dr. Lisa  
Vasciannie**  
Government



**Foreign Policy  
'Jamaica's Foreign Policy, 1962-2022'  
(Palgrave Macmillan 2024) (with Dr. Lisa  
Vasciannie, Dept. Of Government)**

In the years since Independence in 1962, Jamaica's foreign policy has reflected the flux and reflux of international affairs. There has been continuity in the midst of change; and while the country has sought to deepen its traditional friendships and widen its network of allies, it has also experienced occasions of externally determined crisis and major disagreement both within the Caribbean and in the wider world.

Bearing in mind the profound changes which have taken place in the international sphere since independence, this book examines some of the main initiatives and responses which have characterized Jamaican foreign policy over the last sixty years.





FACULTY OF  
**MEDICAL SCIENCES**  
2023 - 2024









**Dr. Debbie Thompson**

Caribbean Institute for Health Research



**Ms Kimberley McKenzie**

Caribbean Institute for Health Research



**Prof. Michael Boyne**

Medicine



**Prof. Asha Badaloo**

Caribbean Institute for Health Research

## Faster rehabilitation weight gain during childhood is associated with risk of non-communicable disease in adult survivors of severe acute malnutrition.

Citation: Thompson DS, McKenzie K, Opondo C, Boyne MS, Lelijveld N, Wells JC, et al. (2023) Faster rehabilitation weight gain during childhood is associated with risk of non-communicable disease in adult survivors of severe acute malnutrition. PLOS Glob Public Health 3(12): e0002698. <https://doi.org/10.1371/journal.pgph.0002698>

Severe acute malnutrition (SAM) is a critical global health issue, especially in low-income settings, and its treatment has traditionally emphasized rapid recovery to prevent immediate mortality.

However, there is growing concern about the effects of weight gain during treatment (nutritional rehabilitation), which could potentially predispose individuals to conditions like cardiovascular diseases, type 2 diabetes, and obesity in later life. This paper investigates how rapid weight gain during nutritional rehabilitation may contribute to adult non-communicable disease (NCD) risk.

The primary purpose of this study is to address a gap in understanding the long-term consequences of childhood SAM and its rehabilitation on adult health. Prior research has largely focused on the immediate recovery of children from SAM, but this study provides new insights into the later-life effects of the rehabilitation process, an area that has not been sufficiently explored.

The study contributes new knowledge by highlighting that faster weight gain during nutritional rehabilitation in children is associated with greater



body fat in adults, which might increase the likelihood of developing NCDs. This finding challenges the traditional rehabilitation approach that prioritizes fast weight recovery, suggesting that a more gradual and controlled approach could potentially reduce future health risks. The paper calls for a rethinking of rehabilitation strategies to ensure that they do not unintentionally create new health challenges for survivors.

From a societal and national development perspective, the paper's findings are crucial in informing public health strategies for countries facing high rates of malnutrition and SAM. By emphasizing the need for tailored rehabilitation programs that account for the long-term health of survivors, the findings can help to guide healthcare policies aimed at reducing the burden of NCDs in populations previously affected by malnutrition. Moreover, it advocates for integrated health systems that address both the immediate and future health needs of children recovering from SAM.

In conclusion, the paper contributes to a better understanding of the long-term consequences of SAM recovery and advocates for improvements in rehabilitation protocols, with the aim of reducing the risk of future NCDs among survivors.





**Prof. Ruby Lindo**  
Basic Medical Sciences



<https://onlinelibrary.wiley.com/doi/epdf/10.1155/2024/5556722>

## Nutritional Supplement in Improving Hepatic Glycaemic Control in Type 2 Diabetic Sprague-Dawley Rats. Advances in Pharmacological and Pharmaceutical Sciences.

This study explores the potential of oleic acid (OA) and succinic acid (SA) as a natural supplement for managing type 2 diabetes (T2D), a condition that has reached epidemic proportions worldwide. While conventional diabetes treatments help regulate blood glucose, they are often accompanied by adverse side effects.

This research examines whether a combination of OA and SA can provide a safer, natural alternative by enhancing blood sugar control and reducing oxidative stress, a well-known factor in the progression of type 2 diabetes.

### New Knowledge Created / Gaps Filled

The study demonstrated that supplementation with OA and SA (1:1 ratio) led to a 35.69% reduction in blood sugar levels in diabetic rats. The key findings include:

- Enhanced insulin sensitivity- improving the body's ability to absorb glucose efficiently.
- Reduced glucose production in the liver, addressing a major factor in high blood glucose levels.
- Improved activity of key liver enzymes, supporting better carbohydrate metabolism.
- Lower oxidative stress, helping to protect cells from diabetes-related damage.
- Protected pancreatic cells from oxidative damage, thus ensuring continued insulin production.

Importantly, the supplement was found to be non-toxic to the liver and kidneys, suggesting it could be a safer alternative to some existing diabetes medications.

### Contributions to Society, National, and Regional Development

This research supports the development of natural, plant-based therapies for diabetes, providing an alternative to synthetic drugs. If further developed, the supplement could have significant economic potential, contributing to both the pharmaceutical and nutraceutical industries, especially in regions abundant in natural products. With diabetes rates on the rise, particularly in the Caribbean and developing nations, this innovative approach offers a cost-effective solution for managing the disease and preventing its complications, thereby improving public health outcomes. Additionally, the widespread adoption of such a supplement could reduce the financial burden on healthcare systems, making diabetes management more accessible to underserved populations. The economic benefits could also stimulate local economies by promoting the cultivation and processing of nutraceuticals, creating jobs and supporting sustainable industries.

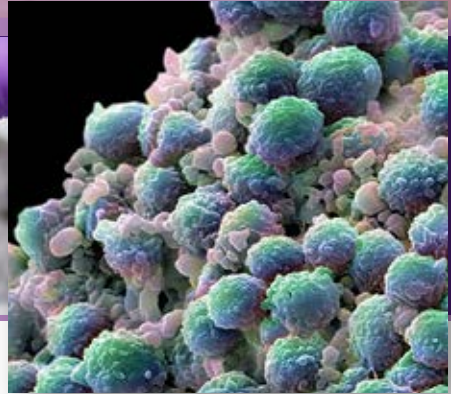
### Conclusion

This study highlights the potential of oleic acid and succinic acid as an innovative approach to diabetes management, offering improved liver function, reduced oxidative stress, and preserved pancreatic health. With further research, this could lead to a new generation of safer, natural diabetes treatments, improving the lives of millions worldwide.

## Research Project Attracting the Most Research Funds



**Dr. Simone Badal**  
Basic Medical Sciences



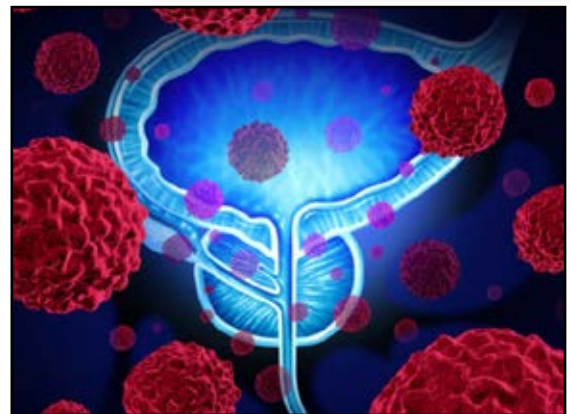
### Novel Prostate Cancer Cell Lines to Address Prostate Cancer Disparity in Black Men

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, Graña 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 Res Commun*; 2(11):1355-1371. DOI: 10.1158/2767-9764.crc-22-0245.

This groundbreaking research addresses a critical gap in prostate cancer research by creating ACRJ-PC28, the first prostate cancer cell line from an Afro-Caribbean patient. This development is crucial because while Black men, especially those from the Caribbean, face higher rates of prostate cancer deaths, only 2% of available laboratory cell lines come from Black patients, making it difficult to develop effective treatments for this population.

The researchers not only created this new cell line but also developed a more successful method for growing cancer cells in the laboratory. The cell

line shows unique characteristics, including the ability to switch between different forms of cancer cells and different responses to drugs compared to existing cell lines. Importantly, we discovered that this cell line represents a rare and aggressive type of prostate cancer (neuroendocrine type) and found that a Jamaican cannabis extract was effective at killing these cancer cells. This work contributes significantly to addressing healthcare disparities by providing researchers worldwide with tools that better represent Caribbean populations, enabling more accurate testing of treatments for Black patients,



and creating opportunities for developing targeted therapies using local resources. These advances could ultimately lead to more effective treatments for Black men with prostate cancer, who currently face worse outcomes than other groups.







FACULTY OF  
**SCIENCE & TECHNOLOGY**  
2023 - 2024









**Dr. Ina Vandebroek**  
Caribbean Centre for  
Research in Bioscience



## Fostering greater recognition of Caribbean traditional plant knowledge

<https://doi.org/10.1016/j.tree.2023.10.007>  
Published Nov 2023

The paper highlights the rich biocultural diversity of the Caribbean, particularly embodied in the traditional plant knowledge of Afrodescendant and other ethnic communities. Despite its value for biodiversity conservation, climate adaptation, and cultural heritage, this Traditional Knowledge (TK) remains under-recognized in research, policy, and education.

Caribbean TK has deep roots in the cultural traditions of Afrodescendant communities and is still actively practiced and evolving among local and diaspora populations. However, mainstream academia and policy often marginalize this knowledge, confining it to niche disciplines and overlooking its relevance for broader environmental and societal issues.

The authors propose an eight-step action plan to elevate Caribbean traditional plant knowledge, advocating for mutual allyship with local communities, especially subsistence farmers (family or hillside farmers), respectful integration into research, and educational reforms that bridge natural and social sciences. This plan emphasizes collaboration with local plant stewards and community-based approaches, challenging extractive research practices that risk perpetuating colonial power imbalances.

Key steps include: (1) building inclusive alliances with family farmers as knowledge holders, (2) refining academic language to more respectfully represent TK, (3) decolonizing research agendas to prioritize community



needs, (4) adopting a holistic systems approach to understand TK in the context of cultural and ecological interconnections, (5) transforming education to incorporate TK in interdisciplinary curricula, (6) advocating for policy shifts that protect intangible cultural heritage, (7) fostering citizen science to enhance local engagement, and (8) promoting social justice by empowering Caribbean communities in research and conservation efforts.

This action plan urges to reshape academic and policy frameworks, advocating for more equitable recognition and preservation of Caribbean TK as vital to socio-environmental resilience in the face of climate change and biodiversity loss.



## Best Research Publication



**Dr. Victor Job**  
Mathematics

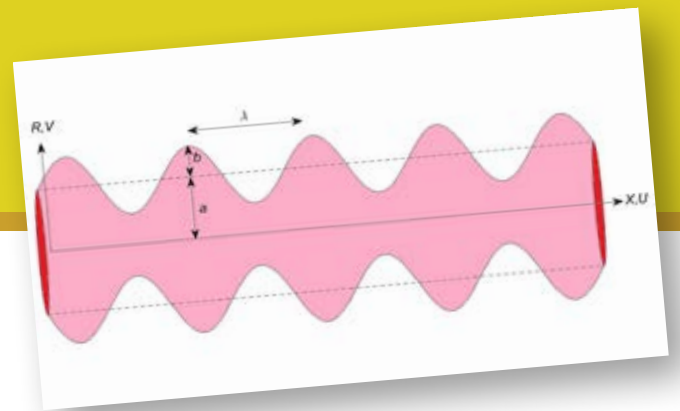
**Dr. Ponakala Nagarani**  
Mathematics

### The effect of peristalsis on dispersion in Casson fluid flow.

Ain Shams Engineering Journal 15(7) (2024) Art. No. 102758. <https://doi.org/10.1016/j.asej.2024.102758>.

The present study examines the peristaltic flow of a non-Newtonian (Casson) fluid and solute transport through a flexible tube. Using the long-wavelength approximation, an analytical solution for the Casson fluid velocity is obtained in the axial and radial directions.

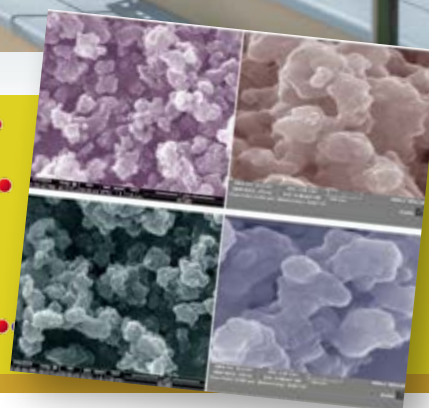
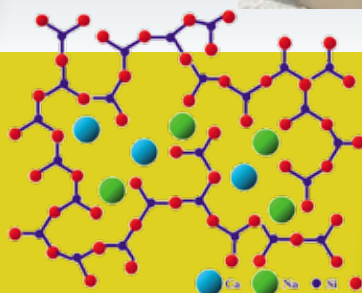
Then, a numerical solution to the solute concentration is computed using the standard Galerkin finite element method (FEM) for the case of solutal convection-diffusion and the Discontinuous Galerkin FEM for the pure convection case. Graphical results are presented for the axial and local solute concentrations, and the influence of peristaltic wave amplitude, volumetric flow rate, modified Péclet number, time, yield stress, and pertinent initial condition parameters were investigated.



## Most Outstanding Researcher



**Dr. Venkateswara  
Rao Penugonda**  
Physics



### “Producing Nine (9) Articles + Two design Patents in Academic Year 2023/2024”

The two patent product designs, Stepmate Carryframe for Trolley Bags and Stair-Climbing Trolley Bag, were invented by Dr. Venkateswara Rao Penugonda, and co-inventors from NIT Warangal, India. These designs facilitate the easy transportation of a trolley bag, especially when navigating stairs. To overcome the stair challenge, a set of three wheels on both sides of the bag is utilized. The concept produces less rotational friction than static friction.

This invention features a frame to which the bag can be securely attached. Here presented, three wheels are designed using the CATIA P3 V5 R11 version. The design considerations involve factors such as the steepness of the stairs, the stability of the trolley, and its climbing speed. The two designs were published in the Indian Patent Office Journal. Based on the simulation results, the team will construct the products and apply for utility patents.

- M. Mohan Babu, J. Bhemarajam, A. Maha Lakshmi, Sathaiah Murimadugula, T. Indira Devi, M. Sroda, Mutlu Ozcan, P. Venkateswara Rao, P. Syam Prasad “Exploring the potential of silica mixed zinc phosphate bioactive glasses for bone regeneration: In vitro bioactivity and antibacterial activity analysis” *Journal of Non-Crystalline Solids*
- N. Boudchicha, M. Iezid, F. Goumeidane, M. Legouera, P. Syam Prasad and Penugonda, V. R. “Judd– Ofelt Analysis and Spectroscopy Study of Tellurite Glasses Doped with Rare-Earth (Nd<sup>3+</sup>, Sm<sup>3+</sup>, Dy<sup>3+</sup>, and Er<sup>3+</sup>)” *Materials* 2023, 16(21), 6832;
- A. McGlashan, P. N. Nelson, P. Syam Prasad, M. Iezid, F. Goumeidane, R. Rajaramakrishna, P. Venkateswara “Physical, thermal, optical, shielding and elastic properties of Bi<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub>-TeO<sub>2</sub> glass system doped with Fe<sub>2</sub>O<sub>3</sub>” *Journal of Radiation Physics and Chemistry*

- M. Iezid, A. Abidi, F. Goumeidane, M. Poulain, M. Legouera, P. Syam Prasad and P. Venkateswara Rao “Spectroscopic and JuddOfelt Analysis of Nd<sup>3+</sup> Ion Doped Lithium Antimony-Borate Glasses for Visible and Near Infrared Laser Application Compared to Standard Emission at 1.06 μm” *ECS Journal of Solid-State Science and Technology*
- A. Pranav Kumar, S. Hima Bindu, K. Naveenkumar, Prakash Bongurala, P. Venkateswara Rao, R. Klement, D. Galusek and P. Syam Prasad “Exploring the potential of Eu<sup>3+</sup> ions doped heavy metal oxide containing germanium borate glasses for high efficiency red emitting solid-state lasers” *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*
- P. Syam Prasad, Mahammad Babar Pasha, R. Narasimha Rao, P. Venkateswara Rao, Narayanan Madaboosi, Mutlu Özcan “A Review on Enhancing the Life of Teeth by Toothpaste Containing Bioactive Glass Particles” *Current Oral Health Reports*
- A. Maha Lakshmi, A. Prasad, Sathaiah Murimadugula, P. Venkateswara Rao, Narayanan Madaboosi, Mutlu Ozcan, Kusum Kumari, P. Syam Prasad “Efficacy of Ga<sup>3+</sup> ions on structural, biological and antimicrobial activity of mesoporous lithium silicate bioactive glasses for tissue engineering” *Microporous and Mesoporous Materials* 373 (2024) 113132
- Patent#1 The Patent Office Journal No. 12/2024, Dated: 22/03/2024 Page # 31255 Title of the design: Stepmate Carryframe for Trolley Bags Design # 403652-001
- Patent# 2 The Patent Office Journal No. 12/2024, Dated: 22/03/2024 Page # 31256 Title of the design: Stair- Climbing Trolley Bag Design # 403653-001 Date of Submission: 24/12/2023, Date of Registration: 02/01/2024, Date of Issue: 22/03/2024 [https://search.ipindia.gov.in/DynamicUtility / Journal/ViewJournal](https://search.ipindia.gov.in/DynamicUtility/Journal/ViewJournal)



## Most Outstanding Research Activity



### Dr. David Picking

Caribbean Centre for  
Research in Bioscience



### Establishment of an MOU between UWI and GWG Organic Research Station

GWG is an agricultural business incubator that fosters research on regenerative organic agriculture and botanical/nutraceutical development related to plants, insects, birds, etc.

An MOU has enabled progress across the country with respect to the advancement of agricultural practices and methods to foster the improved growth of several species. During this time, GWG has also become a member of the International Botanical Sanctuary Network through United Plant Savers and has hosted a BioBlitz event that involved of iNaturalist citizen scientists (adults & children) in sustainability initiatives.

**Research Project Attracting The Most Research Funds**



**Prof. Tannecia Stephenson**  
Physics

**Prof. Michael Taylor**  
Physics

**Dr. Louis-Ray Harris**  
Physics

**Prof. Donovan Campbell**  
Geography and Geology



**Mrs. Elecia Myers**  
FST Dean's Office

**Dr. Julie-Ann Grant**  
Mona Office for Research and Innovation

**Dr. Charmaine McKenzie**  
Campus Office for Online Learning



**“Implementation of Transport & Energy Contributions in the Caribbean” project, funded by the German institution GIZ with a budget of EUR 1,039,996.10, running from 2023 to 2026.**

Climate Change continues to present a major threat to Small Island Developing States like the Caribbean.

While adaptation measures are being pursued to lessen some of the impacts, there is a need globally to intensify mitigation efforts, that is, measures to reduce greenhouse gas emissions, even within the Caribbean where contributions are minimal. This activity aims to reduce the emissions of the transport sector within the Caribbean. To this end, The UWI Mona's Faculty of Science and Technology received funding of EUR 1,039,996.10 for the project Implementation of Transport & Energy Contributions in the Caribbean from 2023 to 2026.

The project is one of six components of a larger programme Supporting the implementation of NDCs in the Caribbean – transforming the transport and energy sectors towards a low carbon and climate resilient future that is being funded by the German Federal Ministry for Economic Affairs and Climate Action (BMWK) through their International Climate Initiative (IKI) and in cooperation with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

This project targets Capacity Development for Transformative Action. Our objective is to develop courses, programmes and workshop content to build capacity in sustainable transportation. Under this component, The UWI has already:

- Conducted a needs assessment in relation to university, professional development and vocational courses and resources on electric mobility (e-mobility) for the Caribbean.
  - Developed, approved and offered two university courses - **Electric Mobility – Fundamentals of EV Technologies (PHYS2800)** and **Dynamics, Safety and Economics of EV Technologies (PHYS2801)**.
  - Developed and delivered through workshops and an online self-paced course, an e-mobility curriculum for teacher training (through consultancies) that will enable the incorporation of electric vehicle (EV) content in existing curriculum, and may contribute to regional curriculum review.
  - Procured an electric vehicle and charger and laptops to support teaching and research in e-mobility;
  - Developed (through consultancy) Caribbean Vocational Qualifications (CVQs) Level 3 and Level 4 Hybrid Electric and Battery Electric Vehicle Maintenance and Repair Regional Occupational Standards that have been approved by the Caribbean Association of National Training Authorities (CANTA).
  - Facilitated in-country workshops on EV Technologies in Jamaica, Saint Lucia and Belize.
- This programme has established partnerships with the University of Trinidad and Tobago, Anton de Kom University of Suriname and University of Belize and training partners such as the Jamaican-German Automotive School (JAGAS), as well as industry partners such as Jamaica Public Service (JPS) through the JPS Foundation, Tropical Mobility, Ellesco Jamaica; Evergo Jamaica and ATL Automotive. Research efforts are underway to characterize the perception of EVs in the Caribbean, assess the performance of EVs in Jamaica's context and evaluate the lessons learnt from e-mobility capacity development interventions, as well as implications for policy development.



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



**Dr. Sylvia Mitchell**

Caribbean Centre for  
Research in Bioscience

### In vitro tissue culture approaches to enhance farming practices in Jamaica

Includes multiple workshops, field work, training, plantlet provision, etc. involving students, farmers, organisations, ministry representatives, etc.

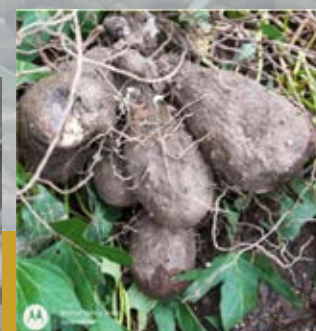
Tissue culture has been explored at the Biotechnology Centre since its inception in 1989, and is part of the Medicinal Plant Biotechnology Research Group since its inception in 1999. However in January 2023, with our farmer partners, we started the Youth Yam Farmers Training Program (YYFTP), designed to transfer the knowledge we have gained over the years (both researchers and elder farmers) to the youth.

The YYFTP has seen the provision of elite tubers by farmers to the Centre and has resulted in an in vitro gene bank that now has 20 yam varieties in addition to 4 cocoyam, 2 dasheen, and 4 banana varieties (all provided by farmers). These germplasm, and associated tissue culture knowledge, have in the past year been shared across the country in multiple workshops, field trials, training sessions, plantlet provision to primary to tertiary students, farmers, organisations, ministry representatives especially for yams, ginger and sweet potato. In particular, tissue culture training has been provided to FMS laboratory technicians, over 20 undergraduate volunteers, two businesses, and approximately 20 technicians and other staff at SRC, MOAF, NCU, and CASE.

Over 100 farmers across Jamaica have hardened and are growing in vitro yams and sweet potato plantlets this year while plants established from yam true seed of *Dioscorea trifida* are in their second year. These initiatives have led to the planting, monitoring and data collection on the growth of over 200 tissue culture plantlets across Jamaica.



**20 Yam Varieties In Vitro Gene Bank**



**yam tubers from yam seed**



**Yam tuber from Renta plantlet**



**Germinated yampie seed**



**4H outreach**



**Hardening yam plantlets**

The impact of providing clean planting material to the economic development to our farmers is tremendous. Yampie (*D trifida*) is endemic to the Americas and its seeds have never been germinated by researchers in Jamaica before this program; sweet yam, negro yam and many others are becoming harder to find, while climate change is proving to be an added burden. This project was requested by farmers, is being supported by farmers and farmer groups, which augers well for the future.

## Research Project With The Greatest Impact On Policy



**Prof. Donovan Campbell**

Geography and Geology

**Dr. Shaneica Lester**

Geography and Geology



### Climate Risk Adaptation Insurance (CRAIC) Project

The Climate Risk Adaptation and Insurance in the Caribbean (CRAIC) project is focused on supporting Caribbean countries in their efforts to increase social resilience and adapt to climate change by incorporating climate risk insurance within a broader framework of disaster risk reduction strategies. The project aims to refine and expand the weather index-based parametric Livelihood Protection Policy (LPP) to make it more affordable and accessible to all people in the Caribbean, especially individuals and communities vulnerable to climate risk. The CRAIC project collaborates with policymakers, regulators, and ministries to create an enabling environment that fosters the growth of climate risk insurance.

The CRAIC Project began implementation in 2011. Phase I of the project, implemented from 2011 to 2015, was led by the Munich Climate Insurance Initiative (MCII) and delivered through the Caribbean Catastrophe Risk Insurance Facility (CCRIF), MicroEnsure, and Munich Re. The project developed two innovative parametric microinsurance products:

- Livelihood Protection Policy (LPP): Available to low-income individuals for coverage against extreme weather events, specifically high winds and heavy rainfall.
- Loan Portfolio Cover (LPC): Designed for lending institutions, such as credit unions and insurance companies.

Phases II and III (2018 to present) focused on the introduction and commercial rollout of the LPP to farmers, fishers, market vendors, and small entrepreneurs (via development/microfinance institutions and other entities such as trade associations) in Jamaica, Saint Lucia, Grenada, Trinidad & Tobago, and Belize. In collaboration with the United Nations University and the CCRIF,



the UWI team has been contracted to lead the research component under both phases of the project to support the implementation of the LPP.

One policy impact: The project has supported the introduction of a new Insurance Act in Belize, which now includes microinsurance provisions to support those facing ongoing barriers to obtaining crucial coverage.

The CRAIC project is also focused on increasing knowledge of the socioeconomic conditions of low-income and climate-exposed households in the target countries, including their levels of financial and insurance literacy, willingness to pay for insurance against extreme weather events, experiences with extreme weather, coping strategies, and preferred disaster risk finance modalities.







# FACULTY OF **SOCIAL SCIENCES**

2023 - 2024



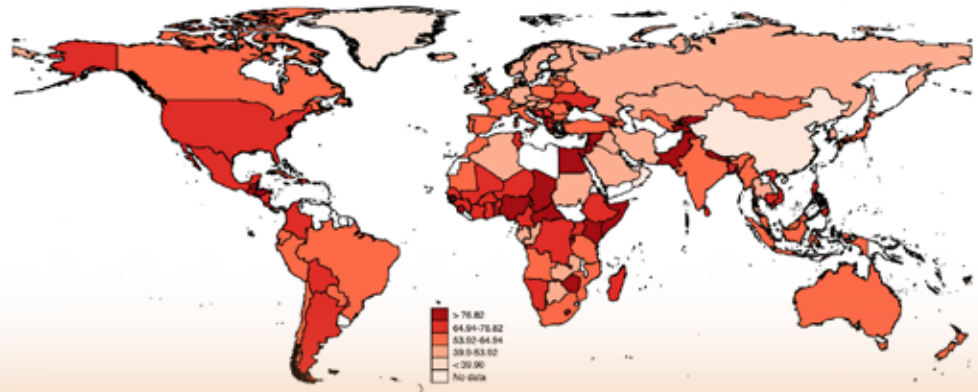






**Dr. Nadine McCloud**  
Economics

Households and NPISHs final consumption expenditure(% of GDP)



McCloud, Nadine. (July 2024). What has Inflation Targeting done for Household Consumption?  
International Review of Financial Analysis, 95,103499. [ABDC Ranking, A]

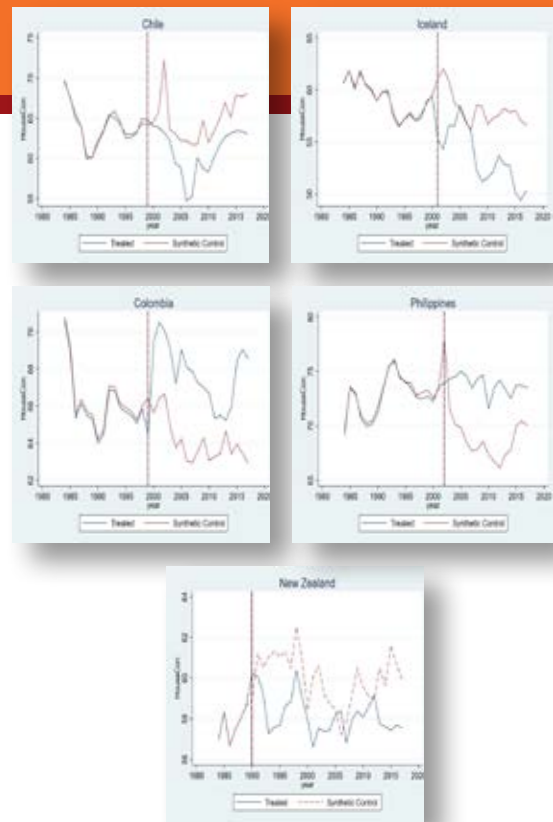
**Several central banks have adopted Inflation Targeting (IT) as their monetary policy to manage price increases by guiding the inflation rate and the public's inflation expectations.**

Furthermore, it is well known that a country's inflation rate and what its citizens expect inflation to be can affect how much they spend, which, in the aggregate, is typically the lion's share of a country's GDP. Nevertheless, the causal IT effect on aggregate household consumption across countries remains unexplored in the empirical literature.

This research investigates whether people spend differently when a country uses IT as its monetary policy tool versus when it doesn't.

The research examines developed and developing countries and finds that IT affects household spending differently everywhere. Some countries saw a significant change, while others didn't. Several factors matter in how IT affects household spending. If the government is committed to IT, it's more likely to have a big impact. The strength or weakness of a country's finances can also affect its impact on IT.

If the central bank tries to keep the value of the country's currency stable, that can also influence how IT affects spending. Factors like people's uncertainty (about inflation, prices, and the economy) and financial development can



also affect how IT affects their spending. This research unveils several novel ways a country's central bank can use IT to control economic demand.





**Prof. David Tennant**  
Economics

**Dr. Sandria Tennant**  
Mona School of Business and Management



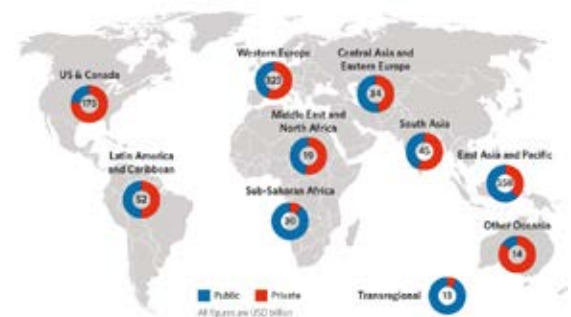
David Tennant, Stuart Davies, Sandria Tennant. (May 2024).

**Determinants of access to climate finance: Nuanced insights for SIDS and other vulnerable economies, World Development,**

Volume 180, 2024, 106623, ISSN 0305-750X, <https://doi.org/10.1016/j.worlddev.2024.106623>

This paper was published in the highly ranked World Development journal. The paper provides comprehensive and nuanced insights into the allocation of the varied sources of climate finance by providing answers to questions not previously addressed in the literature.

By so doing it provides a better understanding of the challenges faced by SIDS in accessing climate financing, highlights an underemphasized bifurcation within this group of countries, and underscores the need for further exploration of suitable types of support and modalities of delivery.



Destination region of public and private climate finance



**Prof. Christopher Charles**  
Government



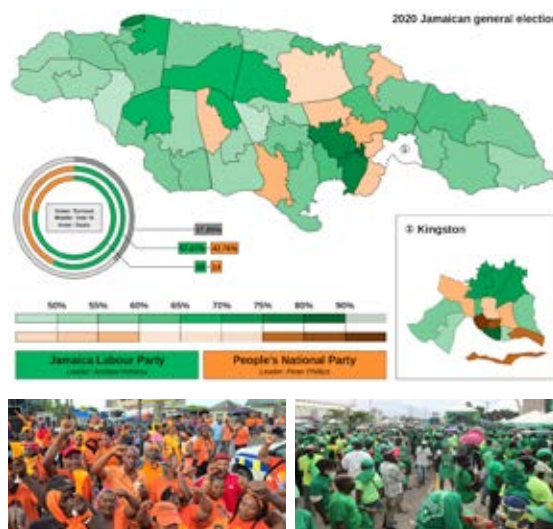
Charles, C., & Reid, G.S.O. (January 2024). The Sexual Abuse of Children. In S.V.C. Morris-Francis, C.A. Gibson & L.E. Grant (Eds.), *Youth, Crime and Violence in the Caribbean* (pp. 159-170). Lexington Books

Christopher A.D. Charles (February 2024) Creating Cannabis Identity through Cannabis Use, *Caribbean Quarterly*, 69:3-4, 386-401. <https://doi.org/10.1080/00086495.2023.2295566>

Walcott G, Hickling FW, Charles CAD. (October 2023). To Di World: Jamaican soccer, poiesis and post-colonial transformation. *Transcult Psychiatry*. 2023 Oct; 60(5):835-843. doi: 10.1177/13634615231198005. Epub 2023 Oct 30. PMID: 37904537.

Christopher A. D. Charles (October 2023). Election forecasting in the Caribbean: Evidence from Jamaica 2015–2020, *Commonwealth & Comparative Politics*. <https://doi.org/10.1080/14662043.2023.2262559>

[Article to be inserted]





## Research Project attracting the Most Research Funds



### Dr. Abigail Harrison

Child and Adolescent Health

### Prof. Caryl James

Sociology, Psychology and Social Work

### Prof. Karen Carpenter

Institute for Gender Studies



## Grant: International Development Research Center Grant Award for “Impact of a psychoeducational intervention on gender norms and mental health outcomes in Jamaican Adolescents”

597000 CAD Harrison, A., James, C and Carpenter, K (2023).

Gender-based violence, sexual harassment and adolescent pregnancy are challenges that plague Latin American and Caribbean countries, and have been linked to negative economic, health, political and social outcomes. A recent global study which included Jamaica as a participating country examined children and adolescents’ overall health and in particular their mental health found evidence of violence towards Jamaican girls, adolescents and women.

Additionally, the study found concerns about stigma surrounding emotional and mental health. These findings along with the implications of their long-term effects on mental health warrant urgency intervention such as gender equality and violence reduction. The goal of achieving gender equality and the reduction of gender-based violence can most effectively be realized through interventions that engage populations of young people to shift discriminatory norms.

The funding for this study has afforded the researchers the opportunity to take a comprehensive look at adolescents in and out-of-school and examine how a psychoeducational intervention (CrAFT JA) can help to address mental health concerns and gender inequities facing adolescents in Jamaica. The overall aim is to help young people feel empowered and less vulnerable, to experience less gender-based violence and better mental health (less depressive and anxious symptoms).



Using a clustered quasi-experimental study design, participants are being recruited from the parishes of Kingston and St. Andrew (KSA), in urban and rural secondary schools and within community- based organizations working with at-risk youth. A 3-month traumainformed psychoeducational training program will be delivered using the Creating A Future Together (CrAFT) curriculum, adapted for Jamaica. CrAFT was developed for use among minority youth in the New Orleans, USA. Pre and post intervention assessments will be carried out through an online questionnaire, on the SurveyCTO app. Questions will be available in audio format allowing participants to listen and select their responses in privacy and accommodate for any variations in literacy levels. The project duration is for three years. This research application takes a multidisciplinary approach which includes a paediatrician/ adolescent medicine physician, clinical psychologist, and gender specialist.

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



**Dr. Gavin Daley**  
Government

**Prof. Lloyd Waller**  
Sir Arthur Lewis  
Institute of Social and  
Economic Studies

**Dr. Stephen Johnson**  
Sir Arthur Lewis  
Institute of Social and  
Economic Studies

**Mr. Howard Reid**  
Government



Jamaica National Drug Prevalence Survey (June 2024)

**The National Council on Drug Abuse's 2023 National Drug Use Prevalence Survey, supported by the Organization of American States' Inter- American Drug Abuse Control Commission (CICAD), stands as a critical research project with significant implications for business, economic, and developmental impact in Jamaica.**

*This survey, a follow-up to the foundational 2016 survey, provides a detailed analysis of the evolving trends in substance use and offers strategic insights that directly inform economic and public health policy-making.*

This survey was strategically conducted to capture up-to-date data on substance use trends across a wide demographic. Understanding these trends is crucial for the development of interventions that not only improve public health but also reduce economic burdens associated with substance misuse, such as healthcare costs, lost productivity, and the strain on law enforcement and social services. By addressing these challenges, the survey directly contributes to economic stability and growth.

The new knowledge generated by the 2023 survey identifies specific socio-economic groups and regions most affected by substance misuse, allowing for targeted and effective resource allocation in public health initiatives. This targeted approach minimizes wastage of resources and enhances the efficiency of interventions, thereby optimizing economic outcomes. Furthermore, the survey's insights into public attitudes towards substances like cannabis have significant implications for industries such as pharmaceuticals, agriculture, and tourism, guiding business strategies and legislative reform in these sectors.

**Developmental Contributions**

The comprehensive data provided by this survey contribute to societal development by informing policies that aim to mitigate the adverse impacts of substance abuse. Effective substance control is linked to broader societal benefits, including reduced crime rates, improved workforce productivity, and enhanced educational outcomes. These improvements are vital for fostering a healthier, more productive society, which is essential for sustained economic growth and development.

In simpler terms, this survey acts as an important tool for economic and developmental planning in Jamaica. It provides the data needed to craft policies that not only address public health concerns but also bolster economic performance and societal well-being. By identifying how and where to deploy resources effectively, the project facilitates smarter investments in public health, which in turn supports a more robust and resilient economy. This alignment of health, economic, and developmental strategies ensures that Jamaica can better manage and leverage its human capital in pursuit of national growth objectives.



*Research Project with the Greatest Impact on Policy*



**Prof. Aldrie Henry-Lee**

Sir Arthur Lewis  
Institute of Social and Economic Studies

**Dr. Leith Dunn**

Sir Arthur Lewis  
Institute of Social and Economic Studies

**Dr. Arlene Bailey**

Sir Arthur Lewis  
Institute of Social and Economic Studies

**Prof. Floyd Morris**

Centre for Disability Studies

**Prof. Maureen Samms-Vaughan**

Child and Adolescent Health

**Ms. Toni-Marie Cornwall**

Sir Arthur Lewis  
Institute of Social and Economic Studies



**Dr. Dacia Leslie**

Sir Arthur Lewis  
Institute of Social and Economic Studies

**Mr. Richard Leach**

Sir Arthur Lewis  
Institute of Social and Economic Studies

**Mrs. Lorna Thomas-Black**

Mona Office for Research and Innovation



**Caribbean Development Bank / UWI Disability Assessment in Four Caribbean Countries**

The Caribbean Development Bank (CDB)/ UWI Report on Disability Assessments in four Caribbean countries – Grenada (and Carriacou and Petite Martinique), Jamaica, St. Lucia and Trinidad and Tobago, presents the findings of a timely and critical multi-year study across the Caribbean region on the rights and experiences of persons with disabilities and the promotion and protection of these to ensure no-one is left behind in the fulfillment of the UN 2030 Agenda and beyond.

Participants in the four countries found the research and discussions to be therapeutic and transformative. From conceptualization to implementation, the research was governed by the mantra “Nothing about us without us.” At all stages, the research group and all research activities included persons with disabilities.

Based on data analysis, the main theme emanating from all four country-studies was: “Inclusivity, Dignity and Agency for All: A Disability is Not an Inability.” Persons with disabilities called for reduced social exclusion, more dignified service and increased opportunities to fulfil their full potential. The situational assessment of PWDs was carried out using a mixed method approach: desk review, institutional assessment, quantitative research - household surveys and qualitative research (focus group discussions and key respondent interviews) in each country, supported by Country Teams, with national workshops in each country and synthesis of a regional report which was a key component of discussions in a regional Caribbean Conference on Disabilities.

The qualitative and quantitative phases of the study entailed a number of research activities, coordinated by the University of the West Indies (the UWI) Team in collaboration with the Country Teams and CDB. Regional team members and partners also included Dr. Jacqueline Huggins, Ms. Rachel Taylor and Dr. Bephyer Parey (UWI St. Augustine), Dr. Warren Benfield and Mrs. Indi McLymont-Lafayette, with CDB Lead Dr. Anthony George.

Key strategic priority areas identified for project and programme support included Legislative, Policy and Programmatic Inclusion, Infrastructure and Accessibility, Inclusive Labour Market Participation, Digital Inclusion, Inclusive Education, Public Education, Social Protection, Housing, Health and Wellbeing support and Monitoring and Evaluation.

The policy implications and impact of the study have been recognized in various fora by the relevant stakeholders including persons with disabilities, the CDB, Ministries, Departments and Agencies, NGOs, and civil society, with related publications and presentations.

The following links also provide some supporting information through some of the media releases:

- <https://www.govt.lc/news/national-sensitization-sessions-underway-for-disability-assessment-in-saint-lucia>
- <https://social.gov.tt/wp-content/uploads/2023/08/Press-Release-Social-Development-collaborates-with-the-UWI-and-Caribbean-Development-Bank-for-situational-analysis-of-persons-with-disabilities-in-TT.pdf>
- <https://jis.gov.jm/study-to-assist-in-addressing-issues-affecting-the-disabled>
- <https://www.facebook.com/watch/?v=685152293453741>
- <https://www.caribank.org/newsroom/news-and-events/cdb-and-partners-championing-inclusion-new-disability-study>



# INSTITUTE FOR GENDER AND DEVELOPMENT STUDIES

2023 - 2024









**Dr. Isaac  
Dery**

Institute for Gender and  
Development Studies



**“It Was All Wrong and Shameful to Beat Her”:  
Discursive Analysis of Men’s Talk of  
Intimate Partner Violence**

Dery, I., Akurugu, C. A., & Baataar, C. (2023). Violence against women, 29(3-4), 705-725.

In this article, our aim is to foreground men’s discourses on gender-based violence as linked to gendered hierarchies, power struggles, and social respectability in Ghana.

Situated within decolonial feminist theories and drawing on interviews, we argue that men’s interpretations of masculinity and the possibility of perpetrating violence against women is significantly mediated by such intersectional factors as sociocultural background, education, and broader societal normative requirements. The findings deepen the understanding of the ambiguities and contradictions that characterize men’s talk of violence. The article discusses how these ambiguities and contradictions serve as important domains for engendering critical attitudes toward violence against women.



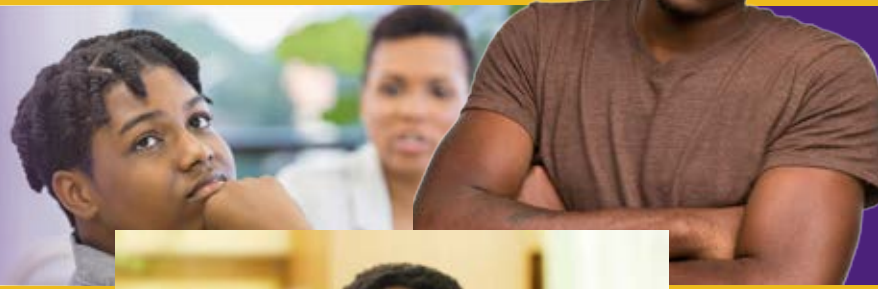


*Research Project with the Greatest Impact on Policy*



## Prof. Karen Carpenter

Institute for Gender and Development Studies  
Mona Unit



### Supporting Increased Learning Opportunities for Under-performing boys (16-24 years) in Jamaica: November 2023-February 2024

The 16-week (project phase 1 of a three-phase project) funded by the Commonwealth of Learning Canada (COL) Supporting Increased Learning Opportunities for Underperforming boys (16-24 years) in Jamaica, sought to increase participation of male youth (16-24 years) in educational/training opportunities.

Youth represent the largest number of unemployed persons in Jamaica and male youth leave the system at higher rates and with lower educational achievements than females. This Situational Analysis collected data through: i) a comprehensive desk review and SWOT analysis of agencies offering education/training opportunities for youth; ii) face-to-face interviews of 300 male youth and 150 unrelated mothers of male youth, in and out of school, in the KMA and St Elizabeth areas; and two focus groups of 8 persons each, with male youth and unrelated mothers.

The study is significant because it assesses the knowledge gap in youth and mothers of male youth regarding available educational and training opportunities. This project has provided some useful answers to the questions of what boys and their mothers see as success and what information they need to achieve this. Having completed this phase gives us a strong foundation for approaching phase two of the project and assist the youth to take practical steps to furthering their education.





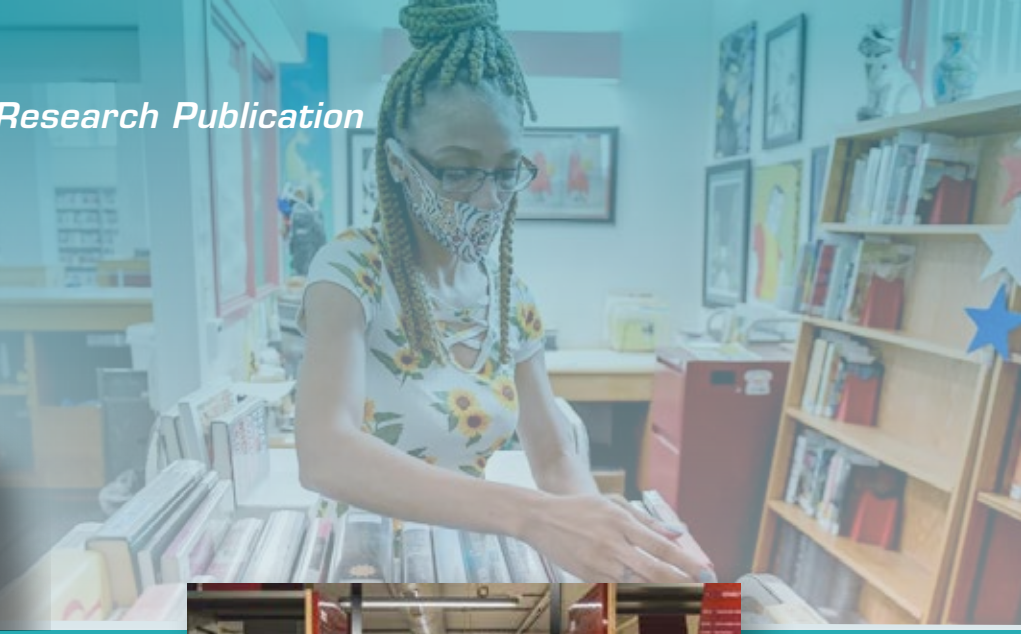
# MONA LIBRARY

2023 - 2024









**Dr. Sasekea Harris**  
Mona Library



## Post-COVID Librarianship

Harris, Sasekea. 2024. "Post-COVID Librarianship". Encyclopedia of Libraries, Librarianship, and Information Science. doi:10.1016/B978-0-323-95689-5.00279-0

The areas of need it seeks to satisfy.

The COVID-19 pandemic transformed libraries globally. A complete return to pre-pandemic processes, services and spaces is now certainly impossible, impracticable, ineffective and undesirable within librarianship.

This paper highlights the impact of the pandemic on libraries worldwide, and the priority areas of post-COVID librarianship, globally and its impact.

**New knowledge created/knowledge gaps filled**  
COVID-19 disrupted the previous normal practice and theory of librarianship. This paper fills the gap in the literature on post-COVID librarianship outcomes and future, from a global perspective. This paper provides crucial data on changes, trends and issues pre-pandemic thru post-pandemic; and on future trends/direction for the profession, on a global level.

**Specific benefits to be derived - potential impact on society**  
This seminal work provides future trends and directions re post-COVID librarianship, globally, in respect of: the library as place, the people (library users & staff), processes, resources and services.

**Possible direct application of outcomes to industry**  
This paper highlights the trends, issues and future of librarianship, internationally, post pandemic.  
Submits post-COVID librarianship as a new focus area for library schools everywhere, with the objective of revising courses to incorporate the features of post-COVID librarianship. More critically, it submits library school



curriculum may now need to place emphasis on how to respond to disruptions caused by nature, economics, politics, and technology, inter alia.

**New partnerships being developed**  
It was Dr. Harris' previous research work on COVID librarianship, which encouraged the Encyclopedia to invite her to make this seminal contribution to this classical global information resource. Additionally, partnership with the Library & Information Association of Jamaica (LIAJA) in hosting a conference of librarians from all types of libraries and information centers throughout the Caribbean, as well as The UWI Library School (DLIS), (the largest trainer of librarians in the Caribbean), on the future of Caribbean librarianship post pandemic, held recently (2024), a first of its kind, under the theme: "Change Management: Caribbean Library Post-Pandemic". This conference provided further research data on post-COVID librarianship, from a Caribbean perspective, which is currently being prepared by Dr. Harris, for publication, to further inform the theory and practice of Caribbean librarianship.





**Mr. Adrian  
Duncan**  
Mona Library



## Beyond the pages: unleashing hologram and holographic technology in Caribbean academic libraries

Duncan, A.S.P. (2024), "Beyond the pages: unleashing holograms and holographic technology in Caribbean academic libraries", *Library Hi Tech News*, Vol. 41 No. 3, pp. 8-11. <https://doi.org/10.1108/LHTN-11-2023-0197>

Areas of need it seeks to satisfy

Adrian Duncan's work centers on integrating advanced technologies, specifically holograms and holographic displays, into academic libraries throughout the Caribbean.

His research illustrates how these innovations can significantly enhance library services by creating immersive displays that boost user engagement.

By strategically incorporating holographic technology, Duncan seeks to modernize how information is presented and improve resource management. His vision positions Caribbean academic libraries at the forefront of digital transformation, enhancing accessibility, interactivity, and operational efficiency.

New knowledge created / knowledge gaps filled

Duncan's groundbreaking study aims to spark critical discussions and promote the adoption of holographic technology in libraries and information institutions across the region. His research underscores the transformative potential of holograms, proposing them as dynamic tools for presenting library resources and services, as well as showcasing works by notable university authors. This innovative medium is poised to redefine academic content delivery and enrich user experiences. His work opens up a new area ripe for exploration and development.

Specific benefits to be derived / potential impact on society  
Students with disabilities and distance learners at the University face significant challenges accessing materials in the Mona Library and beyond. Duncan's study addresses these accessibility issues and offers thoughtful solutions. He argues that holograms and related technologies can bridge this gap, providing improved access for students who typically encounter barriers to engaging with library resources. By leveraging these technologies, Duncan envisions a more inclusive academic environment that enhances resource accessibility for all learners.

Possible direct application of outcomes to industry / particular sectors

Duncan stands out as a leading scholar advocating for the incorporation of innovative technologies in Caribbean libraries, positioning the Mona Library as a leader in technological advancement and a key driver of librarianship progress in the region. His research aims to transform the library into a state-of-the-art institution through the integration of artificial intelligence, robotics, and holographic technologies. This transformative vision aspires to elevate operational capabilities and resource accessibility while redefining the role of academic libraries as vital contributors to user engagement and inclusivity in a digital world.

New partnerships being developed

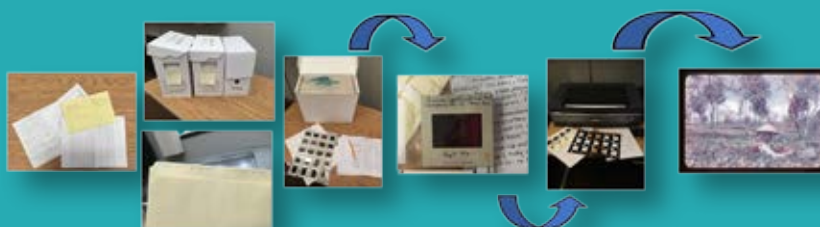
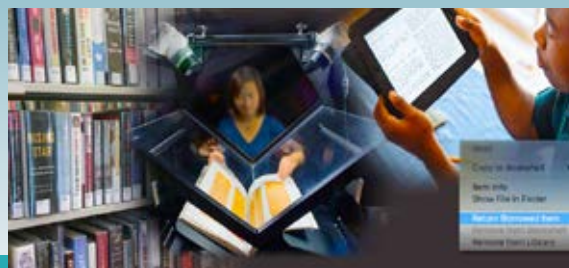
Duncan's advocacy for technological inclusion has generated significant interest, leading to invitations for follow-up articles in academic journals, editorial roles for special issues, and presentation opportunities. This momentum has paved the way for future collaborative research initiatives.

## Best Research Publication



**Mr. Dunstan Newman**  
Mona Library

**Mrs. Nadine Newman**  
Sir Arthur Lewis  
Institute of Social and  
Economic Studies



### Collaboration Between an Academic Library and Library Association in Jamaica: Digitization of the Association's Publication

Dunstan Newman and Nadine Newman. (2024). Collaboration Between an Academic Library and Library Association in Jamaica: Digitization of the Association's Publication. *New Review of Academic Librarianship*, 1-26. <https://doi.org/10.1080/13614533.2024.2381508>

#### The Areas of Need It Seeks to Satisfy

The article highlights a collaborative digitization project between Mona Library (ML) and the Library and Information Association of Jamaica (LIAJA) to address essential needs in preserving the historical records of Caribbean librarianship.

By digitizing LIAJA's publications, such as the Jamaica Library Association (JLA) and LIAJA Bulletins, the initiative enhances access to these critical documents, especially for researchers who may be geographically distant. This project also mitigates the risk of deterioration associated with physical formats, ensuring the preservation and longevity of these publications for future generations.

#### New Knowledge Created/Knowledge Gaps Filled

This project fills a critical knowledge gap by creating a digital archive of LIAJA's publications, thus advancing the study of Caribbean librarianship history. The comprehensive, indexed, and searchable archive resolves previous accessibility limitations tied to print-only records, enabling broader research opportunities. By making decades of scholarly insights available online, the project sets a foundation for further research and historical analysis of library development in the region.

#### Specific Benefits to be Derived – Potential Impact on Society

The project offers substantial societal benefits by safeguarding a part of

Jamaica's cultural and academic heritage. The digital archive is a valuable resource for academic research, historical inquiry, and professional development within librarianship, providing a model for other cultural preservation efforts. By fostering accessibility and promoting best practices in library and archival sciences, the project reinforces cultural resilience, supporting evidence-based research that can drive development and awareness in Caribbean communities and beyond.

#### Possible Direct Application of Outcomes to Industry

The project's outcomes have clear applications within the library, archiving, and historical research sectors. For academic institutions, it offers a practical model for managing the logistics and benefits of digitization efforts, especially regarding archival preservation and resource-sharing. It also provides a framework adaptable to other libraries and archives, particularly those in resource-limited environments, supporting expanded digital collections and improved access for diverse audiences.

#### New Partnerships Being Developed

The collaboration between ML and LIAJA exemplifies the potential of partnerships between academic libraries and professional associations, creating a foundation for future collaborative initiatives. This project required multi-entity cooperation, including support from the National Library of Jamaica, emphasizing the value of collective efforts in overcoming archival challenges. The success of this partnership highlights the importance of cooperation in preserving specialized knowledge, demonstrating how libraries and associations can mutually benefit while enriching the broader scholarly community.







# OFFICE OF THE PRINCIPAL

2023 - 2024







## Best Research Publication



**Dr. Shinique Walters**  
Government

**Dr. Olivene Burke**  
Office of the Principal

**Mr. Roger Bent**  
Student Services and Development



### Community Transportation: The Role of Taxis in the Transformation of Household Livelihoods

The purpose of this research is to analyze the impact of taxi services on household livelihoods in Jamaica, specifically focusing on their role in supporting economic and social stability within communities. By examining how taxi operators contribute to their family's economic, social, and environmental sustainability, the research sheds light on the broader implications of public transportation on household livelihoods.

Utilizing theories of sustainable livelihood and social transformation, the study assesses how individuals can transition from an inherited socioeconomic status to one that is self-achieved through entrepreneurial efforts within the taxi sector.

From a societal perspective, this research contributes to understanding the challenges and barriers taxi operators face, such as the financial strain caused by stagnant fare rates amid rising operational costs. These insights are vital for policymakers, as they highlight the need for targeted interventions, such as fare adjustments and digital transformation, to ensure that the sector remains viable for operators and beneficial for passengers. Digitization, for instance, offers a promising pathway to enhance safety and the overall experience for both operators and passengers, aligning with the Jamaican Government's Vision 2030 goal of developing a strong economic infrastructure.



This study emphasizes how improved transportation systems can directly uplift household incomes and contribute to national economic resilience.











*Recognizing Outstanding Researchers 2022/2023 and 2023/2024*  
*Copyright Office of the Principal, UWI Mona*

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