



Symposium on **Black Methods in Science, Technology, and Innovation Research in Canada and beyond**

Location:

Macdonald Building, 3rd Floor
6300 Coburg Rd, Halifax, NS B3H 4R2
Dalhousie University, Halifax, NS
Online: MS Teams link shared upon registration

PART 2
Sep 19-20



DALHOUSIE
UNIVERSITY
FACULTY OF MEDICINE

DR. OMISOORE DRYDEN
James R. Johnston Chair
in Black Canadian Studies



DALHOUSIE
UNIVERSITY



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Land and Ancestral Acknowledgement

I work, study and live in Kjiptuk/Halifax, the traditional unceded territory of the Wəlastəkewiyik (Maliseet) whose ancestors along with the Mi'kmaq / Mi'kmaw and Passamaquoddy Nations signed Peace and Friendship Treaties with the British Crown in the 1700s. Yet we must not forget that these treaties were signed roughly 140 years before the end of slavery in this region now called Canada. Halifax was imposed upon Kjiptuk in 1749 and enslaved African people were used to dig out roads and build the city – including much of the citadel. On the southern shore of the Bedford Basin, Mi'kmaq shared land with Black people, and this allowed Africville to be founded in the mid 1800s. And as we know, only later to be demolished by the city government, in the 1960s, bulldozed to the ground in the middle of the night, under the guise of public health concerns. In this acknowledgment I honour Indigenous, Afri-Indigenous, and Black people who continue to be here; who continue to be in relation with one another in spite of the pervasiveness of anti-Indigenous and anti-Black racism, and who together fight against genocide and the after lives of slavery. I honour Afri-Indigenous, Black, and Indigenous people including those who were (back in the day) and are (in the present day) queer, trans, genderqueer, and two-spirit. We stand committed in reconciliation and remain engaged in anti-colonialism, and continued disruptions of anti-Black racism.



The Black Health Education Collaborative acknowledges with gratitude the Indigenous and Afri-Indigenous Peoples across Turtle Island who continue to thrive and resist colonial violence while striving for self-determination and decolonial futures. We live, work and play in various territories including the lands of the Huron-Wendat, Haudenosaunee and Mississauga's of the Credit River; Cree, Oji-Cree, Dakota and Dene peoples, the Anishinaabe, and on the homeland of the Métis Nation; Kanien:keha'ka and Mi'kmaq. We remember our ancestors, forcibly displaced Africans, brought to Turtle Island as a result of the Trans-Atlantic Slave Trade and the histories and legacies of colonialism and neo-colonialism which continue to impact African Peoples and the descendants of the Black diaspora across the world.

We recognize that racial colonial violence harm Black, Afri-Indigenous, and Indigenous Peoples through both common and distinct logics and actions. We recognize our responsibility and obligations as African Peoples to be good guests on these lands. We offer thanks to our elders and communities from whom we learn. May your wisdom inform our actions towards a more just future.

Collaborators and Sponsors



Schedule: Sep 19

<p>10:00 AM</p>	<p>Registration & Breakfast</p>
<p>11:00 AM</p>	<p>Welcome <i>Dr. OmiSoore Dryden</i></p>
<p>11:15 AM</p>	<p>Keynote: What could African/Black Diasporic Perspectives offer STEM? <i>Dr. Jennifer Adams</i></p>
<p>12:00 PM</p>	<p>Break</p>
<p>12:10 PM</p>	<p>Abstract Presentations</p> <p>Designing for Black Digital Health Futures: A Critical Review of Human Centered Design and Afrofuturism Design Methods for Black Health Equity <i>Myesha Senior</i></p> <p>Data Initiative for the Analysis of Racial/ Ethnic Health Inequalities in Latin American and Caribbean countries: Protocol for a series of Scoping Reviews <i>Yasmine Elmi</i></p> <p>Increasing the Participation of Black Students in Science in Nova Scotia <i>Dr. Eddia Solas</i></p> <p>LiveSpoken 2 <i>Kofi Oduro & Renee Jordan</i></p>
<p>1:30 PM</p>	<p>Lunch</p>

Schedule: Sep 19

2:30 PM	Plenary. Confronting Anti-Black Racism in the Academy: Innovations in STEMM <i>Dr. Pemberton Cyrus & Dr. Fatimah Jackson-Best</i>
3:30 PM	Break
3:45 PM	Abstract Presentations Mapping complex systems: mental healthcare for Black youth in Ontario <i>Dr. Fatimah Jackson-Best</i> Toward Inclusive Global Health Research: Decolonizing and democratizing community health research <i>Dr. Nelly Aku Amenyogbe</i> Coils & Curls: A Mathematical Tapestry of Black Hair <i>Kofi Oduro & Renee Jordan</i>
4:45 PM	Wrap-up

Schedule: Sep 20

9:00 AM	Breakfast & Registration
9:45 AM	Welcome <i>Dr. OmiSoore Dryden</i>
10:00 AM	Plenary. Trust Me, I'm A Doctor: The Impact of Anti-Blackness on Medical Authority Over Black Patients <i>Ashley Nurse & Dr. Chelsey Carter</i>
11:00 AM	Break
11:15 AM	Abstract Presentations Anti-Black Racism and Pediatric Pain Management: A Proposal <i>Bianca Matthews</i> Black centred approaches to experiential learning <i>D'Andre Wilson-Ihejirika</i> Breaking Barriers: Black Post-Secondary Student Experiences in STEMM across the US and Canada <i>Yasmine Elmi & D'Andre Wilson-Ihejirika</i> In Pursuit of Equity: Evaluating the Impact of the Dalhousie Science Scholars & Leaders Program on Marginalized Students in STEMM <i>Eshan Arora</i>
12:35 PM	Lunch
1:30 PM	The <i>BlackPaper</i>: Explorations and visioning. An exposition on Black methods x STEMM <i>Dr. OmiSoore Dryden</i>
2:15 PM	The <i>BlackPaper</i>, in discussion <i>Dr. OmiSoore Dryden</i>
2:45 PM	Wrap-up & Closing reception

Virtual Participation

Joining online? Here are the MS Teams meeting links for participation through your computer, mobile app or room device.

Thursday, September 19, 2024

[Join the meeting now](#)

Meeting ID: 247 261 363 206

Passcode: coMPSc

Friday, September 20, 2024

[Join the meeting now](#)

Meeting ID: 291 090 590 736

Passcode: GAckwL

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About the BSRI (in STEMM)

The Black Studies Research Institute (BSRI in STEMM) focuses on interdisciplinary and transdisciplinary research, specifically by developing and furthering research within science, technology, engineering, mathematics, and medicine (STEMM) in Black Studies.

Black Studies – epistemologically, ontologically, and axiologically has a place in the sciences and offers new modes of thought, practices and protocols. And as such, Black Studies' interdisciplinarity analyzes, synthesizes, and harmonizes links between disciplines into a coordinated and coherent whole. And also, Black Studies' transdisciplinarity integrates the natural, social and health sciences in a humanities context, and transcends their traditional boundaries.

This is the first institute of its kind in the Atlantic region and the first Black Studies research institute to focus on STEMM in Canada.

The BSRI (in STEMM) aims to: 1) build on existing and emerging methodologies to advance Black Studies; 2) disrupt and address anti-Black racism within research, policies, and practices in the natural sciences, technology, engineering, mathematics, and medicine; 3) inform and direct the creation of collaborative research projects; and 4) establish relationships with other universities and institutes in the Atlantic and nationally.

The BSRI (in STEMM) is committed to bringing together Black scholars with expertise in Black Studies to advance and innovate Black Studies as a method within STEMM research, and welcomes you to the second instalment of the *Symposium on Black Methods in Science, Technology, and Innovation Research in Canada and beyond*. This is an opportunity to identify levers for breakthrough research, collaborations, and avenues for knowledge mobilization.

Dr. OmiSoore Dryden, *Interim Director, BSRI (in STEMM)*

Dr. OmiSoore H. Dryden (she/her/hers), a Black queer femme and Full Professor, is the [James R Johnston Endowed Research Chair in Black Canadian Studies](#), Faculty of Medicine; Interim Director of the Black Studies Research Institute (in STEMM) at Dalhousie University, and the co-founder and co-lead of the national organization, The [Black Health Education Collaborative](#). An internationally recognized subject matter expert in Black health, Black queer diasporic analytics, and Anti-Racism health equity, OmiSoore engages in interdisciplinary scholarship and research that focuses on Black and Black LGBTQI communities, blood donation systems in Canada, and anti-Black racism in healthcare, medical education, and Black health curricular content development.

Her book, [Got Blood to Give: Anti-Black Homophobia in Blood Donation](#) will be published by Fernwood Publishing in November 2024. Dr. Dryden is an associate scientist with the Maritime SPOR SUPPORT Unit (MSSU), a current member of the [Black Feminist Health Science Studies International Collective](#) (hosted at Northwestern University, Chicago), and a founding member of the [National Coalition Confronting Anti-Black Racism in Donor Protocols](#).

Speaker Bios

Jennifer Adams

Dr. Adams is a Tier 2 Canada Research Chair of Creativity, Equity, and STEM and a Professor at The University of Calgary in the Department of Chemistry. She is the PI of the Creativity, Equity and STEM Lab where she leads her team in research on equity in STEM teaching and learning environments with an emphasis on identity-affirming, anti-deficit, desiring, and justice-oriented approaches. She is sought after for talks and workshops around her work in equity in postsecondary STEM. She is in leadership on several Canadian national projects including “Securing Black Futures” which seeks to increase the visibility and support the flourishing of Black students in STEM and the Canadian Black Scientists Network where she is the PI of the STEM Beyond Borders initiative that examines Black in STEM equity-oriented research, policy and practice in Canada and the United States.



Dr. Adams was recognized by the Calgary Black Chambers with an award for Black Achievement in STEM. Her prior appointments include Brooklyn College and The Graduate Center, City University of New York, the American Museum of Natural History, and The New York City Department of Education. She is a daughter of the Caribbean Rivers and Sea, and she enjoys open-ocean swimming and triathlon training.



Nelly Aku Amenyogbe

As a Canadian with African roots, and a mother of two, my vision is not only to deliver effective interventions to boost immune resilience among mothers and newborns in low-resource settings, but also to empower scientists from these settings to lead biomedical research, not only participate in it. I am working towards this goal as a research professional by leading a team of scientists and graduate students. My research aims to identify feasible strategies to enhance

newborn immune resilience with a focus on host metabolism. To achieve this, I apply pre-clinical models, human newborn cohorts, and bioinformatics. I complement this with a strong track record in community involvement, including four year’s experience teaching young children hands-on science, coaching youth track and field programs, and volunteering at community libraries in Ghana. I now teach data literacy and R programming to my peers and develop content for virtual learning platforms. I view this as a responsibility to give back to the community and empower others and am eager to take on opportunities that would enable me broaden my impact.

Eshan Arora

Eshan Arora is a 1st year Medical Student at Dalhousie University, recently graduating with a Bachelors of Medical Sciences (BScMS Hons.) and Certificates in Intercultural Communication, Medical Humanities, and Science Leadership & Communication. He is the incumbent Student Representative on Dalhousie's Board of Governors & Senate, an Equity Champion with Dal's Faculty of Science, and Program Lead of the Dalhousie Science Scholars & Leaders Program (DSSLP). In recognition of all his efforts, Eshan was recently honoured with both of Dalhousie's highest two student accolades: receiving the 2024 Board of Governors' Award – in addition to the President's Award for the Advancement of Equity, Diversity, Inclusion, & Accessibility (EDIA).



Chelsey R. Carter (she/her/hers)

Dr. Carter is an Assistant Professor of Public Health in the Department of Social and Behavioral Sciences at Yale University, with a secondary affiliation in the Department of Anthropology. Dr. Carter is a native of St. Louis and a Black feminist anthropologist with specializations in medicine, public health, and race. She is the Founder & Director of The LEITH (Lived Experiences Igniting Transformations in Health) Lab – a hub to address “Black invisibility” and misdiagnosis at the intersection of genomic research, ALS, and other rare neurodegenerative diseases, honouring the influential activism and scholarship of Dr. Leith Mullings. Dr. Carter is also undertaking a book project which includes an ethnographic study of the diverse experiences of living with ALS, which draws on over 15 years of experience with Black communities affected by ALS. Her scholarship has been funded by the National Science Foundation, the Andrew Mellon Foundation, the Wenner Gren Foundation, the Chan Zuckerberg Initiative, the Ford Foundation, the ALS Association, the National Institutes of Health and more.

She serves as an executive board member for the Society for Medical Anthropology and currently serves on the National Academies' (NASEM) “Amyotrophic Lateral Sclerosis: Accelerating Treatments and Improving Quality of Life” study as a health equity expert. Dr. Carter was a Presidential Postdoctoral Research Fellow at Princeton University in the Department of Anthropology and Center for Transnational Policing. She received her Bachelor's degree in Anthropology with a minor in Spanish (high honours) from Emory University. She holds a Ph.D. in Sociocultural Anthropology, a Master of Public Health, and a Certificate in Women, Gender, and Sexuality Studies from Washington University in St. Louis.

Pemberton Cyrus

Dr. J. Pemberton Cyrus, President and Chair of the Board of Imhotep's Legacy Academy, is former Head of the Department of Industrial Engineering at Dalhousie University. Prior to this he served a one-year term as the Associate Vice-President Academic (Acting), and prior to this appointment, Dr. Cyrus served 11 years as the Associate Dean of Engineering at Dalhousie University. He is a Fellow of Engineers Canada, has taught industrial engineering for 39 years, and held various administrative positions at Dalhousie University and the Technical University of Nova Scotia. He is past-chair of the Canadian Engineering Accreditation Board, a member of the Maritime Provinces Higher Education Commission and is currently a member of the Board of Examiners of Engineers Nova Scotia.



Yasmine Elmi

Yasmine Elmi is currently enrolled in McGill University's MD-PhD program and hopes to specialize in social epidemiology to explore racial disparities in health outcomes. Driven by a passion for research and community engagement, Yasmine has actively contributed to various initiatives aimed at addressing pressing health disparities. Her research endeavours, supported by funding from CIHR and the McCall MacBain Foundation, focus on participatory methods, community-based research, and racial health inequities. Notably, she collaborates with the Pan-American Data Initiative for the Analysis of

Population Racial and Ethnic Health Inequities, where she explores critical issues in maternal and child health in Latin America. Beyond her academic pursuits, Yasmine is deeply committed to mentorship and increasing diversity in STEM, Yasmine is actively involved with the National Youth Mentorship Advisory Council of Big Brother Big Sister, the Federation of Black Canadians, and Let's Talk Science's Black Volunteer Collective. Her dedication has earned her recognition, including the McCall MacBain Scholarship, the 21 Under 21 Awards, and Canada's Top 100 Black Women to Watch, celebrating her academic excellence and commitment to community impact.



Fatimah Jackson-Best

Dr. Fatimah Jackson-Best is a public health researcher with a specialization in mental health and whose work focuses on communities in Canada and the Caribbean. She holds a PhD from the University of Toronto Dalla Lana School of Public Health.

From 2018 to 2023 Dr Jackson-Best led a systems change project with the Black Health Alliance called Pathways to Care. The project used mixed methods research, community-based participatory research approaches, and systems mapping to improve access to mental health and addictions services for Black children, youth, and their families in Ontario.

Currently Dr. Jackson-Best is an Assistant Professor in the Department of Health Research Methods, Evidence and Impact and holds a joint appointment in the Department of Medicine at McMaster University. Her upcoming program of research will explore the impact of Islamophobia on the mental health of Black Muslims, Muslims, and Muslim women in Canada.



Renee Jordan

Renee Jordan is graduate of Concordia University with a Bachelors of Engineering in Mechanical Engineering with a specialization in Design and Manufacturing. She also is certified project management professional.

Additionally to her day to day work as Technical Buyer, she leads a Curl Love club at a High School where she teaches the students to appreciate their naturally curly, coily hair. These exploration include how to care for, debunking natural hair hair myth's, black hair careers beyond the stylist chair, deeply rooted in science, technology, engineering, mathematics, medicine and arts.



Bianca Matthews

Bianca Matthews is a PhD student at Dalhousie University, in the Clinical Psychology program in the Department of Psychology and Neuroscience. She works under the supervision of Dr. Christine Chambers, in the Centre for Pediatric Pain Research at the IWK Health Centre. Her past and present research has centered around the contribution of unique minority stressors to chronic pain coping experiences as well as chronic pain knowledge translation pertaining to diverse experiences.

Currently, she is conducting a narrative inquiry study (supported by a Nova Scotia Graduate Scholarship and a Canadian Institute of Health Research Award)

on Anti-Black Racism and Children's Pain Management. She hopes to continue conducting research that highlights the voices of racialized populations.



Ashley Nurse

Ashley Nurse is a second-year Doctoral Student at the Yale School of Public Health in Social and Behavioral Sciences (SBS) Department, and a Research Assistant in Dr. Chelsey Carter's LEITH Lab. Her current research explores the racial and gendered ideological underpinnings of medical knowledge production and their impact on Black maternal health outcomes within the United States. Before Yale, she obtained her B.A. in Medical Anthropology from Princeton University and worked as a Clinical Research Assistant at Boston Children's Hospital's Brazelton Touchpoints Center.



Kofi Oduro

Kofi Oduro (Illestpreacha) is an award winning Experiential Storyteller, Creative Coder & Data Practitioner that transforms sounds, images, data, words & code into experiences that nurtures discussion, reflection & interaction. He creates/designs/research through his decade plus involvement in performance and event production. Designing with his sports, health & computational skill sets through a multi-sensorial perspective, his process is an observation of the world around us & then puts it into artworks/experiences for others to relate to or disagree with. Aiming to highlight the realms of human performance & their mindset in different scenarios. These correspond with factors such as social, internal & biological, which we face in our daily lives.



Myesha Senior

Myesha is a PhD student in the Department of Mechanical and Industrial Engineering pursuing research that focuses on equitable mental healthcare systems and technology design through human factors. More specifically, Myesha is interested in exploring the current mental healthcare systems and adjacent digital mental health technologies to identify improvement opportunities to produce more equitable outcomes for black communities. Myesha has a background in psychology and healthcare, with a passion for advocacy within these spaces. As a lifelong learner, she loves learning, teaching, and exploring new concepts. In her spare time, she enjoys photography, videography, and music curation.



Eddia Copeland Solas

Dr. Eddia Copeland Solas is currently an Associate Professor and Director of Teacher Education in the Faculty of Education at Mount Saint Vincent University, where she prepares pre-service teachers for their practicum experience. With over 15 years of experience teaching in secondary and post-secondary education across Canada, the Middle East, and the Caribbean, Dr. Solas is a seasoned science educator. Her research interests focus on inclusive pedagogies, barriers to student learning, and student misconceptions in science. She is deeply committed to exploring and implementing pedagogical strategies that enhance student engagement and comprehension, with the goal of creating more effective and inclusive learning environments.



D'Andre Wilson-Ihejirika

D'Andre Wilson-Ihejirika was born and raised in The Bahamas and immigrated to Canada to pursue a degree in Chemical Engineering at McGill University before subsequently working in the Oil and Gas industry and then pivoting into Engineering Education and the EdTech space. D'Andre is currently a PhD candidate at the University of Toronto Faculty of Applied Science and Engineering, conducting research on understanding how the undergraduate student experience influences the career pathways

taken by Black engineering graduates. D'Andre's research is conducted through the Institute for Studies in Transdisciplinary Engineering Education Practice (ISTEP) and funded through the IBET fellowship program (Indigenous and Black in Engineering and Technology). D'Andre has also conducted research through the Canadian Black Scientists Network BE-STEMM Beyond Borders initiative, to better understand how we can learn from practices in the U.S. to support Black students in STEM and apply them here in Canada.

In Addition to her PhD research, D'Andre is founder and President of BrainSTEM Alliance, a non-profit company focused on delivering programming, workshops and events focused in engineering education, STEM outreach, and EDI (Equity, Diversity and Inclusion). D'Andre is also the Executive Director of Work Integrated Learning at Calgary Economic Development, leading the TalentED YYC initiative, she sits as the co-chair of the EDI group for the Canadian Engineering Education Association, and is an Executive Board Member for the LearningCITY Collective.

D'Andre is a licensed professional engineer (P.Eng) and project management professional (PMP), and wife and mother to three young children.

The *BlackPaper*

The *BlackPaper* is a guide and announcement to make public the official working guidelines of the Black Studies Research Institute. Through this position paper and report, the *BlackPaper* will focus on the specific intersection of Black Studies and STEMM. The *BlackPaper* provides insights on (and incites through) the philosophy of the institute, whilst also outlining the key areas of research, pedagogy, methods and policy for the future of a Black method informed STEMM research. The *BlackPaper* has a focus and approach centered around Black methodologies for the purpose of offering various entry points to understand and answer research questions that will enhance the fields of STEMM.

Our review identified key gaps in integrating Black Studies into STEMM fields, leading to the development of **research questions** to promote critical Black scholarship in STEMM:

- How does recognizing subjectivity in “objective” STEMM disciplines affect the scientific method?
- How can STEMM research adopt Africentric methodologies to promote inclusivity and holistic approaches?
- How can Afrofuturism drive STEMM innovation in areas that disproportionately affect Black communities?
- How does integrating Black Studies into STEMM research (and education) benefit the scientific discovery, innovation, community, and society?
- What role do Black researchers play in STEMM, and how can their experiences shape more equitable research practices?
- What policies and initiatives can effectively address barriers to Black representation in STEMM?

Read [The *BlackPaper*](#).