

KERRY NIGEL MITCHELL

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SUMMARY

I am an Associate Professor in the Department of Public Health and Preventive Medicine at St. George's University in Grenada, where I teach Biostatistics and Environmental Health. My research focuses on environmental monitoring and assessment. I also examine the relationship between exposure to toxic agents in air, water, and soil and their impact on human health, identifying evidence-based approaches that may help mitigate exposure. In addition to my academic and research responsibilities, I also serve in various administrative roles that have strengthened my leadership capabilities in strategic thinking, effective communication, decision-making, and adaptability.

EDUCATION

Doctorate, Biological Sciences, *summa cum laude* **2016**
Universidad Autónoma de Aguascalientes, México

- Research Group: Environmental Toxicology and Bioengineering

Bachelor's, Environmental Sciences **2011**
Universidad Autónoma de Aguascalientes, México

- Track: Environmental Technology

ACADEMIC APPOINTMENTS

Chair **2023 - present**
Department of Public Health and Preventive Medicine, St. George's University, Grenada

- Oversees the academic and administrative functions of the department and its CEPH accredited MPH program, including curriculum development, faculty recruitment and development, strategic planning.

Associate Professor **2022 - present**
Department of Public Health and Preventive Medicine, St. George's University, Grenada

- Directs and teaches courses on Environmental Health and Biostatistics in the MD and MPH programs.
- Collaborates on research into the spatial and temporal distribution of air pollution in the Caribbean, and the impacts on health.

Assistant Dean **2021 - present**
Office of Student Affairs, St. George's University, Grenada

- Provides guidance, support, and advocacy for students, addressing their concerns, challenges, and needs.
- Collaborates with campus security, counseling services, and other relevant stakeholders to ensure the safety and welfare of students.
- Works closely with administration in the development and implementation of program, policies and services that enhance the University's student centric approach to education.

Course Director **2019 - 2022**
BPM502 - Basic Principles of Medicine III, St. George's University, Grenada

Content Manager **2019 - 2020**
Public Health Assessment Tools, St. George's University, Grenada

Assistant Professor **2018 - 2022**
Department of Public Health and Preventive Medicine, St. George's University, Grenada

Lecturer **2016 - 2018**
Department of Public Health and Preventive Medicine, St. George's University, Grenada

Lecturer **2012 - 2016**
Department of Biology, Universidad Autónoma de Aguascalientes, México

PUBLICATIONS

Peer-reviewed Journal Articles

- Farmer-Diaz, K., Matthew-Bernard, M., Cheetham, S., Mitchell, K., Macpherson, C. N. L., & Ramos-Nino, M. E. (2026). A practical and scalable VIRADEL workflow for SARS-CoV-2 wastewater surveillance in resource-limited communities. *COVID*, 6(3), 35. <https://doi.org/10.3390/covid6030035>
- Mitchell, K., Bogollagama, M., Khan, T., Compton, S., Mendes, J., Edwards, O., & Forde, M. S. (2026). Assessing Nitrogen and Phosphorus Levels in Drinking Water Sources of Southern Grenada. *The West Indian Journal of Engineering*, 48(2), 55–61. <https://journals.sta.uwi.edu/ojs/index.php/wije/article/view/10413>
- Moncur C, Kamotho M, Jain T, Weslock N, Ragheb M, Mitchell K. (2025). Early life exposure to ambient particulate matter and Kawasaki disease: a systematic review and meta-analysis. *Frontiers in Cardiovascular Medicine*. <http://dx.doi.org/10.3389/fcvm.2025.1611757>
- Yang, N. K.-H., Dirienzo, N., Forde, M. S., Villeneuve, P. J., Sealy, A., Compton, S., & Mitchell, K. (2025). Temporal trends in ambient fine particulate matter in Grenada between 2009 and 2022. *Environmental Monitoring and Assessment*, 197(8). <https://doi.org/10.1007/s10661-025-14334-6>
- Joshi, A., Magana, L., Tsai, K.-H., Maddah, D., Mitchell, K., Ruggiero, D., Hawkins, W. B., Dharamsi, S., Makhoul, J., Reis, R., Kim, S. Y., Low, W. Y., Amde, W., Nja, G., Jeu, M., Kelly, B., Saliba, B., Jha, N., Kalediene, R., ... Mackey, T. K. (2025). Public health diplomacy: summary of the methods and outcome of the 1st University of Memphis School of Public Health Diplomacy Summit. *Frontiers in Public Health*, 13. <https://doi.org/10.3389/fpubh.2025.1564709>
- Crespo-Toledo, T., Avelar-González, F., Guerrero-Barrera, A., Mitchell, K., Yamamoto-Flores, L., & Flores-Amaro, O. (2025). Integrative assessment of heavy metal risks in mining polluted sediments and soils of Aguascalientes, Mexico. *Case Studies in Chemical and Environmental Engineering*, 11, 101130. <https://doi.org/10.1016/j.cscee.2025.101130>
- Weslock, N., Drew, D., Palanichami, D., La, A., Shoctor, H., Amir, A., Ramdass, P., & Mitchell, K. (2025). Association between fine particulate matter (PM2.5) and atopic dermatitis—a systematic review. *Discover Public Health*, 22(117). <https://doi.org/10.1186/s12982-025-00502-z>
- Farmer-Diaz, K., Matthew-Bernard, M., Cheetham, S., Mitchell, K., Macpherson, C. N. L., & Ramos-Nino, M. E. (2025). Optimized aluminum hydroxide adsorption–precipitation for improved viral detection in wastewater. *International Journal of Environmental Research and Public Health*, 22(2), 148. <https://doi.org/10.3390/ijerph22020148>
- Matthew-Bernard, M., Farmer-Diaz, K., Dolphin-Bond, G., Matthew-Belmar, V., Cheetham, S., Mitchell, K., Macpherson, C. N. L., & Ramos-Nino, M. E. (2025). Phenotypic Antibiotic Resistance patterns of *Escherichia coli* isolates from clinical UTI samples and municipal wastewater in a Grenadian community. *International Journal of Environmental Research and Public Health*, 22(1), 97. <https://doi.org/10.3390/ijerph22010097>
- Forde, M. S., Cashman, A., & Mitchell, K. (2024). Sustainability of water resources in Caribbean small island developing states: an overview. *Discover Sustainability*, 5(1). <https://doi.org/10.1007/s43621-024-00478-x>
- Flores-Amaro, O. A., Ramos-Gómez, M. S., Guerrero-Barrera, A. L., Yamamoto-Flores, L., Romo-Rodríguez, P., Mitchell, K., & Avelar-González, F. J. (2024). Characterization and evaluation of the bioremediation potential of *Rhizopus microsporus* Os4 isolated from arsenic-contaminated soil. *Water, Air, and Soil Pollution*, 235(8). <https://doi.org/10.1007/s11270-024-07232-z>
- Graffam, J. T., La, A., Afon, I., Idahor, U., Oladimeji, T., Mitchell, K., & Keku, E. (2023). Particulate matter and infant mortality: A narrative review. *International Journal of Public Health*, 15(1), 7–14.
- Dirienzo, N., Mitchell, K., Forde, M., Rainham, D., & Villeneuve, P. J. (2023). Temporal trends in ambient fine particulate matter and the impacts of COVID-19 on this pollutant in Grenada, West Indies. *Journal of the Air & Waste Management Association*, 73(2), 97–108. <https://doi.org/10.1080/10962247.2022.2126555>
- Macias, R., Ramos, M. S., Guerrero, A. L., Farfán, M. G., Mitchell, K., & Avelar, F. J. (2022). Contamination Assessment and Chemical Speciation of Lead in Soils and Sediments: A Case Study in Aguascalientes, México. *Applied Sciences*, 12(8592), 1–15. <https://doi.org/10.3390/app12178592>
- Beesley, L., Trakal, L., Hough, R., & Mitchell, K. (2022). Mobility and crop uptake of Zn in a legacy sludge-enriched agricultural soil amended with biochar or compost: insights from a pot and recirculating column leaching test. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-022-21744-3>
- Mitchell, K., Moreno-Jimenez, E., Jones, R., Zheng, L., Trakal, L., Hough, R., & Beesley, L. (2020). Mobility of arsenic, chromium and copper arising from soil application of stabilised aggregates made from contaminated wood ash. *Journal of Hazardous Materials*, 393(122479), 1–10. <https://doi.org/10.1016/j.jhazmat.2020.122479>
- Mitchell, K., Mendoza-González, C. V., Ramos-Gómez, M. S., Yamamoto-Flores, L., Guerrero-Barrera, A. L., Macias-Medrano, R., & Avelar-González, F. J. (2020). The effect of low-temperature biochar and its non-pyrolyzed composted biosolids source on the geochemical fractionation of Pb and Cd in calcareous river sediments. *Environmental Earth Sciences*, 79(7), 1–8. <https://doi.org/10.1007/s12665-020-08908-5>
- Ray, E., & Mitchell, K. (2019). Environmental Atrazine Exposure and Endocrine Health: Implications for Rural Communities in Midwestern United States. *International Public Health Journal*, 11(4), 353–361.
- Flores de la Torre, J. A., Mitchell, K., Ramos Gómez, M. S., Guerrero Barrera, A. L., Yamamoto Flores, L., & Avelar González, F. J. (2018). Effect of plant growth on Pb and Zn geoaccumulation in 300-year-old mine tailings of Zacatecas, México. *Environmental Earth Sciences*, 77(10), 0. <https://doi.org/10.1007/s12665-018-7563-7>

- Mitchell, K., Trakal, L., Sillerova, H., Avelar-González, F. J., Guerrero-Barrera, A. L., Hough, R., & Beesley, L. (2018). Mobility of As, Cr and Cu in a contaminated grassland soil in response to diverse organic amendments; a sequential column leaching experiment. *Applied Geochemistry*, 88, 95–102. <https://doi.org/10.1016/j.apgeochem.2017.05.020>
- Trakal, L., Raya-Moreno, I., Mitchell, K., & Beesley, L. (2017). Stabilization of metal(loid)s in two contaminated agricultural soils: Comparing biochar to its non-pyrolysed source material. *Chemosphere*, 181, 150–159. <https://doi.org/10.1016/j.chemosphere.2017.04.064>
- Mitchell, K. N., Ramos Gómez, M. S., Guerrero Barrera, A. L., Yamamoto Flores, L., Flores de la Torre, J. A., & Avelar González, F. J. (2016). Evaluation of Environmental Risk of Metal Contaminated Soils and Sediments Near Mining Sites in Aguascalientes, Mexico. *Bulletin of Environmental Contamination and Toxicology*, 97(2), 216–224. <https://doi.org/10.1007/s00128-016-1820-9>

Book Chapters

- Beesley, L., Cancelo, B. C., Hardman, M., Lebrun, M., Mitchell, K., & Trakal, L. (2024). Biochar and heavy metals. In *Biochar for Environmental Management* (pp. 531–557). Routledge. <https://doi.org/10.4324/9781003297673-21>
- Mitchell, K., Rosenberg, J., Brizan-St. Martin, R., Khan, R., Mitchell, R., Norville, J., Afeworki, S., Beckles, D., Buckmire, Z., Clark-Lewis, N., Compton, S., Jattansingh, S., & Jones, S. (2023). Setting the scene: How a National Ecosystem Assessment (NEA) will contribute to better decision making. In J. Agard, A. St. Louis, & N. Boodram (Eds.), *Grenada National Ecosystem Assessment 2023* (pp. 26–72). UNEP-World Conservation Monitoring Centre, Cambridge, UK; Government of Grenada, St. Georges, Grenada; Caribbean Natural Resources Institute, Barataria, Trinidad and Tobago.
- Mitchell, K., Beesley, L., Šípek, V., & Trakal, L. (2022). Biochar and its potential to increase water, trace element, and nutrient retention in soils. In D. C. W. Tsang & Y. S. Ok (Eds.), *Biochar in Agriculture for Achieving Sustainable Development Goals* (pp. 25–33). Academic Press. <https://doi.org/10.1016/B978-0-323-85343-9.00008-2>
- Forde, M., Izurieta, R., Ormeci, B., Arellano, M., & Mitchell, K. (2019). Water and Health. In G. Roldan, J. Tundisi, B. Jimenez, K. Vammen, H. Vaux, E. Gonzalez, & M. Doria (Eds.), *Water Quality in the Americas: Risks and Opportunities* (pp. 27–36). The Inter-American Network of Academies of Sciences. <https://www.interacademies.org/publication/water-quality-americas-risks-and-opportunities>
- Mitchell, K., Forde, M. S., & Neptune, A. (2019). Water Quality in the Americas: Caribbean-Grenada. In G. Roldan, J. Tundisi, B. Jimenez, K. Vammen, H. Vaux, E. Gonzalez, & M. Doria (Eds.), *Water Quality in the Americas - Risks and Opportunities* (pp. 353–365). The InterAmerican Network of Academies of Sciences. <https://www.interacademies.org/publication/water-quality-americas-risks-and-opportunities>

CONFERENCES & MEETINGS

Invited Speaker

- Mitchell, K. (2026). Town Hall: Responsible and Ethical Use of AI in Public Health. 2026 ASPPH Annual Meeting for Academic Public Health, Washington DC.
- Mitchell, K. (2025). Webinar: The Burden of Non-communicable Diseases (NCDs). Introduction to NCDs and NCD Policies for Non-Medical Advocates, Lake Health and Wellbeing.
- Mitchell, K. (2025). Webinar: Advancements in Responsible and Ethical Use of AI in Public Health Education: Updates from ASPPH AI Task Force. Association of Schools and Programs of Public Health.
- Mitchell, K. (2025). Plenary Speaker: Global Education and Technology. SGU Education Summit - Transformative Education in Local Communities - 2025, St. George's University, Grenada.
- Mitchell, K. (2023). Webinar: Air Pollution-A Significant Determinant of Health. 3rd SNMA International Affairs 2022-2023 Global Health Fellowship.
- Mitchell, K. (2023). Plenary Speaker: Sources of Air Pollution in Grenada - Impacts on health. Caribbean Air Quality and Health Network - Inaugural Meeting; St. George's University, Grenada.
- Mitchell, K. (2022). Plenary Speaker: Estimating the Effect of Particulate Air Pollution on Health in Grenada, Southern Caribbean. II Congreso Internacional de Enfoques Multidisciplinarios en Salud y Alimentos, Universidad Autónoma de San Luis Potosí, Ciudad Valles, San Luis Potosí, México.
- Mitchell, K. (2021). Webinar: Effects of Climate Change on Community Health. Organización Dominicana de Estudiantes de Medicina (ODEM) & One Health Lessons
- Mitchell, K. (2021). Plenary Speaker: Air Pollution - A Public Health Emergency? 9o Congreso Químico-Biológicas, Univerisidad Autónoma de Zacatecas, Zacatecas, México.

Session Moderator

- Mitchell, K. (2026a). Global Health Ethics, Equity, and Sustainability. 2026 ASPPH Annual Meeting for Academic Public Health, Washington DC.
- Mitchell, K. (2026b). Truth in the Machine: Ethical AI Use in Public Health Messaging. 2026 ASPPH Annual Meeting for Academic Public Health, Washington DC.
- Mitchell, K. (2025). Preparing Students in a Future with AI, 2025 Association of Schools and Programs of Public Health Annual Meeting, Washington DC, USA

- Mitchell, K. (2025). Sustancias Químicas Invisibles: La Regulación como Clave para Prevenir Enfermedades Crónicas. 20 Congreso de Investigación en Salud Pública, Instituto Nacional de Salud Pública, Cuernavaca, México

Presentations

- Mitchell, K., Yang, N. K. H., Dirienzo, N., Compton, S., Villeneuve, P., & Forde, M. (2025). A low-cost approach to ambient fine particulate matter monitoring - the case of Grenada. 18th European Public Health Conference, Helsinki. Oxford University Press (OUP). <https://doi.org/10.1093/eurpub/ckaf161.1307>
- Mitchell, K. & Perez, B. (2024). Temporal Trends in Ambient Fine Particulate Matter and Acute Respiratory Infections in Grenada. 2024 Annual Meeting - American Public Health Association, Minneapolis, USA.
- Mitchell, K., Avelar-Gonzalez, F. J., Guerrero-Barrera, A. L., Ramos-Gomez, M. S., & Yamamoto-Flores, L. (2023). The effect of organic amendments on Zn mobility in calcareous river sediments affected by mining activity. 12th SUITMA Conference on Soils of Urban, Industrial, Traffic, Mining and Military Areas, Santiago de Compostella, Spain.
- Mitchell, K., Lewis, R., Dirienzo, N., Forde, M., Villanueva, P. (2023). Seasonal Variation of Air Quality in Grenada. 20th St. George's University Research Day and Phi Zeta Research Emphasis Day, St. George's University, Grenada.
- Mitchell, K., Avelar-González, F. J., Guerrero-Barrera, A. L., Ramos-Gómez, M. S., & Yamamoto-Flores, L. (2021). Evaluating the potential mobility of Cd in contaminated calcareous sediments amended with biosolids and biochar. SETAC Europe 31st Annual Meeting - 2021 - Global Challenges. An Emergency for Environmental Sciences, Seville, Spain - Virtual. Society of Environmental Toxicology and Chemistry Europe.
- Mitchell, K., Edwards, O., Forde, M., Punch, B., Khan, T., & Bogollagama, S. (2021). Priority setting for occupational carcinogen exposure among doctors. CARPHA 65th Annual Health Research Conference, Virtual.
- Mitchell, K., Forde, M., Smith, M., Villeneuve, P., & Dirienzo, N. (2020). Preliminary monitoring of ambient particulate matter mass concentrations in Grenada. Virtual Public Health Conference - Relevance, Creativity & Innovation, St. George, Grenada; Virtual.
- Mitchell, K., Avelar-González, F., Guerrero-Barrera, A., Ramos-Gómez, M., & Yamamoto-Flores, L. (2017). Fractionation of Pb in contaminated calcareous sediments amended with biosolids and biochar. 17th St. George's University Research Day and Phi Zeta Research Emphasis Day, St. George's University
- Mitchell, K. N., Avelar Gonzalez, F. J., Guerrero Barrera, A. L., Thalasso Siret, F., Ramos Gomez, M. S., & Flores Yamamoto, L. (2014). Characterization of River Sediments Polluted by Mining Activities in Asientos, Aguascalientes. 5th Congreso Internacional - La Investigación en el Posgrado, Aguascalientes, Mexico. Universidad Autónoma de Aguascalientes.
- Mitchell, K., Ramos-Gómez, M., Guerrero-Barrera, A., Yamamoto-Flores, L., Thalasso-Siret, F., & Avelar-González, F. (2014). Physicochemical Evaluation of Soils and Sediments Near Mining Operations in Asientos, Aguascalientes. The Fourth International Symposium on Environmental Biotechnology and Engineering, Mexico City, Mexico.

GRANTS

- St. George's University SGRI 22010; USD \$2990.00 **2022**
 - *Health Risk Assessment of Ambient Particulate Matter Exposure in Grenada*
- St. George's University SGRI 16019; USD \$4968.66 **2016**
 - *Nutrient concentrations in surface and subterranean water sources in the Southern Region of Grenada*

ADDITIONAL EXPERIENCE

Visiting Researcher

2015

Environmental and Biochemical Sciences Group, The James Hutton Institute, United Kingdom

- Research Project - Mobility and bioavailability of metals in contaminated soils amended with biochar, unprocessed organic matter, and iron oxides

Visiting Researcher

2015

Department of Environmental Geosciences, The Czech University of Life Sciences, Czech Republic

- Research Project - Sequential column extraction of metals from contaminated soils amended with biochar and unprocessed organic matter

Visiting Researcher

2009 - 2010

Universidad Autónoma de Guadalajara, Guadalajara, México

- Research Focus - *Determination of the effect of the microalgae *Phaedactylum tricornutum* used as a bio-fertilizer in seed germination parameters in three varieties of tomato under varied saline stress.* Under the direction of Dr. Froylan Espinoza Escalante, funded by the Mexican Academy of Sciences

Universidad Autónoma de San Luis Potosi, Mexico

- Research Focus - *Use of sulphates during the uptake of cadmium by plant species *Typha latifolia**

Apprenticeship

2010

The Public Water and Sewer Commission of the Municipality of Aguascalientes, Aguascalientes, México

- Research Focus - *Design of an activated carbon-based filter for the reduction of fluoride content in drinking water*

ST. GEORGE'S UNIVERSITY ADMINISTRATIVE RESPONSIBILITIES

SOM Honors Selective I & II , Co-Director	2021 - present
PUBH849 – Toxic Exposure & Public Health , Course Director	2017 - present
Year 3 & 4 Electives - Public Health During Disease Outbreaks , Co-Course Director	2020 - 2023
PUBH807 - Principles of Environmental Health , Course Director	2017 - 2022

ST. GEORGE'S UNIVERSITY SERVICE

SGU Iota Epsilon Alpha (IEA) , Faculty Advisor	2021 - present
Basic Sciences Curriculum Sub-Committee (BSCSC) , member	2021 - present
St. George's University Institutional Review Board , Vice Chair	2020 - present
Academic Progress Review Committee (APRC) , member	2021 - 2022
DPHPM Admissions and Graduate Committee , member	2018 - 2023
DPHPM Research and Scholarly Activity Committee , member	2018 - 2023
St. George's University Institutional Review Board , non-executive member	2018 - 2019

SERVICE TO PROFESSION

Advisory Committees

- Association of Schools and Programs of Public Health
Technology Advisory Committee; Member
Subcommittee - Taskforce for the Responsible and Ethical Use of Artificial Intelligence
2024 - present
- Association of Schools and Programs of Public Health
Global Engagement and Partnerships Advisory Committee; Member
2024 - 2026

Scientific Review Committees

- Revista Académica de Investigación - Tlatemoani; ISSN: 1989-9300
2022 - present

Ad-Hoc Journal Reviewer

- Frontiers in Cardiovascular Medicine; Epidemiology and Preventive Section, ISSN: 2297-055X
- Biology and Fertility of Soils, ISSN: 1432-0789
- Journal of Soil Science and Plant Nutrition, Springer Nature, ISSN: 0718-9516
- Frontier in Soil Science, Frontiers, ISSN: 2673-8619
- Communications Earth & Environment, Springer Nature, ISSN: 2662-4435
- Environmental Sciences Europe, Springer Nature, ISSN: 2190-4715
- Scientific Reports, Springer Nature, ISSN: 2045-2322
- Environmental Geochemistry and Health, Springer Nature, ISSN: 1573-2983
- Environmental Earth Sciences, Springer Nature, ISSN: 1866-6299
- Environmental Monitoring and Assessment, Springer Nature, ISSN: 1573-2959
- Biochar, Springer Nature, ISSN: 2524-7867
- Environmental Science and Pollution Research International, Springer Nature, ISSN: 1614-7499
- Bragantia, Instituto Agronômico de Campinas, ISSN: 1678-4499

Coordinating Lead Author

- The Grenada National Ecosystem Assessment
UNEP-WCMC, Cambridge, UK; Government of Grenada, St. Georges, Grenada;
Caribbean Natural Resources Institute, Barataria, Trinidad and Tobago
2020 - 2023

Multiple Choice Questions Writer for the Certified in Public Health Exam Study Guide

- Association of Schools and Programs of Public Health
2017 - 2018

PROFESSIONAL DEVELOPMENT

- **Environmental Risk Assessment**, SETAC Latin America, Cartagena, Colombia
2019
- **Geographic Information Systems Management**, IPICYT, San Luis Potosi, Mexico
2018
- **Protecting Human Research Participants**, NIH Office of Extramural Research
2017
- **Global Health: An Interdisciplinary Overview**, Université de Genève *by Coursera*
2017
- **Epidemiology**, The University of North Carolina at Chapel Hill *by Coursera*
2017
- **Effective Project Planning and Evaluation in Health Research**, SGU, Grenada
2017
- **Environmental Impact Assessment**, IPICYT, San Luis Potosi, Mexico
2016
- **Scientific Writing**, The National Council of Science and Technology, Mexico
2014
- **Toxicology and Ecotoxicology of Nanomaterials**, ANCA, Tlaxcala, Mexico
2009
- **Advanced Spanish (Level 5) and Mexican Culture**, UNAM, Guerrero, Mexico
2005 - 2006

PROFESSIONAL MEMBERSHIPS

- Association of Schools and Programs of Public Health (ASPPH)

- American Public Health Association (APHA)

LANGUAGES

- English, *Native language*
- Spanish, *Full proficiency*