

Monthly Report to the Provost – Faculty of Science – **May 2025**

Engaging Learners

Nathan Bialis

Two of my research students gave poster presentations at the “Lifestyle Medicine and Flourishing Symposium at Burman University and the Banff Centre” May 1-4, 2025.

Fiona Gretton Coulter and Nathan Bialis. “Understanding the Impact of Huckleberry (*Vaccinium membranaceum*) extract on Longevity and B-Amyloid Toxicity in *Caenorhabditis elegans*”

Rosemarie Mazzek and Nathan Bialis. “Investigating the Effects of Saskatoon Berry (*Amelanchier alnifolia*) on Lifespan and Fatty acid Metabolism in *Caenorhabditis elegans*”

Anna Kuczynska

Math Match 10 - held on February 18 and there were 13 very engaged participants, who competed against one another in solving math problems.



Pics from the 10th
MM 2025.pdf

Cynthia Loten

Math Mania event held at Noel Booth on May 14

Marina Tourlakis

Has been accepted to the 2025 [HHMI Ambassador Academy](#) Cohort. The Howard Hughes Medical Institute is a world leader in biomedical research and evidence-based biology education. The Ambassador Academy is a 3 year professional development experience that connects high school and post-secondary biology educators across North America to support them in developing an evidence-based practice, prepare them to engage in outreach activities, and develop free online learning tools for the [HHMI Biointeractive platform](#). Marina is excited to be part of the group and looks forward to promoting UFV's biology program on an International stage and find interesting ways to further engage UFV's learners.

Sydney Raison

Sydney Raison's passion for recycling ultimately influenced her master's research years later. She is proud member of our sessional faculty teaching environmental science at UFV.

[Sydney Raison](#)

Transforming Lives

Golfam Ghafourifar

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Awarded a NSERC Discovery Development Grant: is a complementary program element to the Discovery Grants (DG) program. Its goal is to: promote and maintain a diversified base of high-quality research in small universities across Canada; and provide a stimulating environment for research training in small universities across Canada.

Cherie Enns

Our IDRC grant is concluding, and one of our outcomes is a One Health application platform that has the potential to be scaled up significantly.

[Winrack](#)

SSHRC-funded Mifood is now moving into further funding and phasing. We have published a paper/report/blog/policy brief and am invited to Mexico City to present on our next phase. There is also an applied intervention: focused on the food security of refugees/migrants.

[MiFOOD Papers - MiFOOD Network](#)

Connected to initiatives with UN-Habitat, and last year, wrote an editorial and was guest editor for a soon-to-be Scopus ranked journal on placemaking. This research is linked to a COIL class with Cairo and the Italy Study Tour and to the focus of the SSHRC Partnership Grant we just submitted.

Advisor on a Planning Initiative working with the Gov of Finland and UN-Habitat with plans to scale up an initiative that focuses on the design of cities with a peace and well-being focus (includes tech/AI). This links to the global focus of our new and growing planning program at UFV and exploring developing content/training that could be offered online. Interested in funding innovative and global education partnerships.

Women Rise – Final Technical Report



Women RISE_Final
Technical Report An

Vanessa Radzimski

Invited to speak on May 6th at *MATH 100: Celebrating 100 Years of the Mathematics Building at UBC*. My talk was titled *The Mathematical Education of Canadian School Teachers: 1925 – 2025*

<https://www.math.ubc.ca/math-100-celebrating-100-years-mathematics-building-ubc>

Building Community

Regional K-12 Science Fair

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Held at UFV on April 10, 2025, students compete for the chance to represent the Fraser Valley at the Canada Wide Science Fair, they also vie for ribbons and monetary awards donated by local UFV departments and community sponsors

[Regional Science Fair ~ 2025 | Flickr](#)

Masters Supervision – Sandra Gillespie

My master's student, Emma Bryce completing a Masters in Environment and Management at Royal Rhodes University presented her thesis results to the 7th Annual BC Berries Research Review on March 31, 2025. The title of her talk was "*Evaluating the Use of Nest Boxes as a Strategy for Enhancing Wild Bumblebee Pollination in Commercial Blueberry Production*".

Vanessa Radzimski

On May 1, 2025, the Department of Mathematics and Statistics hosted the 26th Annual BC Secondary School Math Contest. The contest was held at the UFV Chilliwack campus, where nearly 50 students wrote the contest. Enrichment for students and professional development for teachers was available through the day as well. The afternoon was a success and we look forward to the contest next year!

On March 23, 2025, the Department of Mathematics and Statistics hosted the 2025 Canadian Math Kangaroo Contest. We welcomed over 70 students from grades 1-12 from across the Fraser Valley to write the contest. The Canadian Math Kangaroo Contest is an international mathematics contest that has been hosted in over 70 countries. The problems included in the contest emphasize critical thinking, creativity, and the beauty of mathematics. The afternoon was a great success, and we look forward to hosting in subsequent years.



Lenore Newman

Conference Keynote: (2025, March 29th) Social and policy implications of cultivated meat, Canadian Alternative Protein Symposium, University of Toronto.

List of Publications (UFV student names underlined)

Michael Hitch

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Hussain, Z., J. Li, J. Fu, S. Zhang, S. Zhu, W. Ni, and M. Hitch (Accepted on April 2, 2025) Aerial Mapping and Geological CO₂ Sequestration Option in Bagrote Basalt Deposit, Gilgit-Baltistan, Pakistan. *Green and Smart Mining Engineering*. (SJR Q1)

Rodolaki, C., G. Barakos, and M. Hitch (Accepted on April 2, 2025) Navigating the Narrative Landscape: AI-Driven Insights into Social License and ESG Risk Across Global Mining Economies. *The Extractive Industries and Societies*. (SJR Q1)

Hitch, M., C. Rodolaki, and G. Barakos (2025) Power Imbalances and Sustainability Challenges: A Political Ecology Analysis of Impact and Benefit Agreements in Canada's Arctic Mining Sector. *The Extractive Industries and Societies*. <https://doi.org/10.1016/j.exis.2025.101665> (SJR Q1)

Rongzhen, J., J. Li, X. Wang, X. Ma, D. Ntokoma, H. Huo, S. Zhang, W. Ni, and M. Hitch (2025) Optimizing Lime-Based Cemented Paste Backfill for Potash Mines: A Comprehensive Loop Test Study on Slurry Transportation Characteristics. *Processes*. <https://doi.org/10.3390/pr13041171> (SJR Q1)

Hussain, Z., H. ud Din Haider, J. Li, Z. Yu, J. Fu, S. Zhang, S. Zhu, W. Ni, and M. Hitch (2025) Mapping, modelling and designing a marble quarry using integrated electric resistivity tomography and unmanned aerial vehicles: A study of adaptive decision making. *Drones*. <https://doi.org/10.3390/drones9040266> (SJR Q1)

Wang Y., J. Li, and M. Hitch (2025) Electronic-Oxygen Synergy at Ca-Fe Dual-Metal Interfaces for Selective Syngas Regulation in Biomass Chemical Looping Gasification. *Molecules*. <https://doi.org/10.3390/molecules30071471> (SJR Q1)

Kügerl, M-T., M. Hitch, and K. Gugerell (2025) Driving factors for responsible sourcing in Europe: Motivations of renewable energy technology manufacturers. *The Extractive Industries and Society*. <https://doi.org/10.1016/j.exis.2025.101649> (SJR Q1)

Heraiz, H., Li, J., Pan, Z., Zhang, D., Hu, Y., Mu, X., Baras, A., Liu, J., Ni, W., & Hitch, M. (2025). The Utilization of Slag, Steel Slag, and Desulfurization Gypsum as Binder Systems in UHPC with Iron Tailings and Steel Fibers—A Review. *Minerals*, 15(5), 538. <https://doi.org/10.3390/min15050538>