

SMRs and our ecosystem

Date: May 27 – May 29, 2025

Location: Crescent House, McMaster University

If Small Modular Reactors (SMRs) are to be widely dispersed in Canada as the government plans, what protections, policies, and regulations are necessary to develop?

With support from our NSERC Alliance collaborative SMR grant with the Canadian Nuclear Safety Commission (CNSC), we are hosting a small workshop to discuss the scientific, environmental, and social issues involved in the development of SMRs.

Please join us to engage in discussions on the scientific issues and challenges in the development and placement of SMRs. We invite workshop participants to submit papers to our special issue in the International Journal of Radiation Biology.



Biology

Program

Day 1 - Tuesday May 27

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| 8:30 – 9:30 am | Registration & Refreshments |
| 9:30 – 9:45 am | Welcome Remarks Carmel Mothersill |
| 9:45 – 10:00 am | A note from the Department of Biology, Chair Marie Elliot |
| 10:00 – 10:15 am | Opening & Land Acknowledgement Joanne Webb |
| 10:15 – 11:15 am | Theme 1: What are the engineering and technical challenges involved in design and development of SMR projects in Canada? <u>Perspectivists</u> Dave Novog Soohyun Byun Jim Cotton |
| 11:15 – 11:25 am | Coffee Break |
| 11:10 – 12:10 | Theme 2: What are the environmental and radiobiological challenges? <u>Perspectivists</u> Kentaro Ariyoshi Trevor Stocki Carmel Mothersill |
| 12:10 – 12:30 | General Discussion of Morning Topics Rhea Desai |
| 12:30 – 1:30 | Lunch |
| 1:30 – 2:30 | Theme 3: What are the social, public perception & ethical challenges? <u>Perspectivists</u> Rhea Desai & James LeMoine , Challenges and strategies for Indigenous engagement |

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| | <p>Colin Seymour, Larissa Shasko, SMRs and the politics of public engagement: navigating division, disinterest, and decision making Barry Hill, Creating awareness in Indigenous communities</p> |
| 2:30 – 2:45 pm | <p>General Discussion</p> <p>Chair: Paul Schofield</p> |
| 2:45 – 4:00 pm | <p>Guided breakout discussion on the three themes</p> <ul style="list-style-type: none"> • Theme 1, Chaired David Novog • Theme 2, Chaired Carmel Mothersill • Theme 3, Chaired Larissa Shasko |
| 4:00 – 5:00 pm | Discussion Debrief |
| 5:30 pm | Dinner |

Day 2 - Wednesday May 28

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| 9:30 – 10:00 am | Light Breakfast |
| 10:00 – 10:30 am | <p>How do we ensure we protect the environment around nuclear projects?</p> <p>Adrienne Ethier, Environmental Risk Assessment Specialist, CNSC</p> |
| 10:30 – 11:00 am | <p>Natural Background Radiation Compared to Nuclear Energy Radiation and the Relative Impacts on Human and Environmental Risks</p> <p>Doug Boreham, Professor & Division Head of Medical Sciences, Northern Ontario School of Medicine</p> |
| 11:00 - 11:30 am | <p>Title TBA</p> <p>Deborah Oughton, Norwegian University of Life Sciences</p> |
| 11:30 – 12:00 pm | <p>Empowering Stakeholders and the Dangers of Normative Science and Stealth Advocacy.</p> <p>Larry Kapustka, LK Consultancy, Diamond Valley, Alberta</p> |

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| 12:00 – 1:00 pm | Lunch |
| 1:30 – 3:00 pm | Guided Breakout Discussion <ul style="list-style-type: none"> • Theme 1, Chaired by Doug Boreham • Theme 2 Chaired by CNSC Representative • Theme 3 Chaired by Rhea Desai |
| 3:00 – 3:30 pm | Discussion Debrief |
| 3:30 – 4:30 pm | Position Paper Brief |
| 4:30 – 5:30 | Reception followed by dinner at The Buttery |

Day 3 - Thursday May 29

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| 9:00 – 9:30 am | Light Breakfast |
| 9:30 – 11:00 am | Guided Breakout Discussion <ul style="list-style-type: none"> • Theme 1, Chaired by Soohyun Byun • Theme 2, Chaired by Andrea Bonisoli-Alquati • Theme 3, Chaired by Deborah Oughton |
| 11:00 – 11:30 pm | Discussion Debrief Chair: Paul Schofield |
| 11:30 – 12:30 pm | Lunch |
| 12:30 – 2:30 pm | Position Paper Discussion & Development |
| 2:30 – 3:00 pm | Closing Remarks by Adrienne Ethier, CNSC |
| 3:00 – 5:00 pm | McMaster Nuclear Reactor Tours |