### Manitoba Chemistry Symposium 2018

#### Program at a Glance

**Friday, May 4**
*(all events in Convocation Hall except as indicated)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Registration, coffee/tea</td>
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<tr>
<td>8:30 – 10:10</td>
<td>Symposium: Biochemistry and Indigenous Nutrition and Health</td>
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<tr>
<td>10:10 – 10:25</td>
<td>Break (coffee and snacks)</td>
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<tr>
<td>10:25 – 12:15</td>
<td>Symposium: Biochemistry and Indigenous Nutrition and Health cont’d</td>
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<tr>
<td>12:15 – 1:15</td>
<td>Group Lunch (Convocation Hall)</td>
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<tr>
<td>1:15 – 3:15</td>
<td>Symposium: Recent Discoveries in Organic and Medicinal Chemistry – Part 1</td>
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<tr>
<td>3:15 – 3:30</td>
<td>Break (coffee and snacks)</td>
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<tr>
<td>3:30 – 5:30</td>
<td>Undergraduate Student Oral Competition</td>
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<tr>
<td>5:30 – 7:00</td>
<td>Reception, Poster Session, and Student Poster Competitions</td>
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<td></td>
<td><em>Atrium of Richardson College of the Environment and Science Complex</em></td>
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</tbody>
</table>

**Saturday, May 5**
*(all events in Convocation Hall except as indicated)*

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<tr>
<td>8:00</td>
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<tr>
<td>8:30 – 9:50</td>
<td>Symposium: Extreme Science</td>
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<tr>
<td>9:50 – 10:10</td>
<td>Break (coffee and snacks)</td>
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<tr>
<td>10:10 – 11:20</td>
<td>Symposium: Extreme Science (cont’d)</td>
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<tr>
<td>11:20 – 12:00</td>
<td>General Session (submitted talks)</td>
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<tr>
<td>12:00 – 1:00</td>
<td>Lunch (on your own)</td>
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<tr>
<td>1:00 – 3:05</td>
<td>Symposium: Recent Discoveries in Organic and Medicinal Chemistry – Part 2</td>
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<tr>
<td>3:05–3:20</td>
<td>Break (coffee and snacks)</td>
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<tr>
<td>3:20 – 5:20</td>
<td>Graduate Student Oral Competition</td>
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<tr>
<td>~5:30</td>
<td>Student Awards</td>
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</tbody>
</table>
Manitoba Chemistry Symposium 2018

Program Schedule

Friday May 4

8:00  Registration, coffee/tea

Symposium - Biochemistry and Indigenous Nutrition and Health
Location: Convocation Hall
Organizer: Michael Eze
Chair: Shailesh Shukla

8:30 Welcome and opening remarks. Annette Trimbee, President and Vice-Chancellor of University of Winnipeg.

8:40 [001] Vegetable leaf-fortification of wheat bread and some indigenous Nigerian foods for better nutrition and health outcomes. Rotimi Aluko. University of Manitoba, Department of Food and Human Nutritional Sciences.

9:20 [002] Effect of Vitamin D Supplementation on Mycobacterium tuberculosis-Induced Innate Immune Responses in a Canadian Dené First Nations Cohort: what does this mean in the context of First Nations health? Linda Larcombe1, Pamela Orr1, Neeloffer Mookherjee1,2. 1Department of Internal Medicine and 2Manitoba Centre for Proteomics and Systems Biology, University of Manitoba.

9:45 [003] Investigating the Molecular Pathogenesis of Emerging and Re-Emerging Viruses at the Interface of Basic and Clinical Research. Jason Kindrachuk. Department of Medical Microbiology and Infectious Diseases, University of Manitoba.

10:10 Break


12:05 Closing remarks. Annette Trimbee, President and Vice-Chancellor of University of Winnipeg.

12:15 End of Session.
**Group Lunch**
Convocation Hall
12:15 – 1:15 pm

**Symposium – Recent Discoveries in Organic and Medicinal Chemistry – Part 1**
Location: Convocation Hall
Organizer: Athar Ata
Chair: John Sorensen


1:45  **[009]** *Frontiers in Antibiotic Discovery and Development.* Christopher N. Boddy. Department of Chemistry and Biomolecular Sciences, University of Ottawa.

2:15  **[010]** *Plant-derived immunomodulators: insights into their molecular mechanisms underlying innate and adaptive immune responses.* Ibrahim Jantan. Drug and Herbal Research Centre, Faculty of Pharmacy, Universiti Kebangsaan Malaysia.

2:45  **[011]** *New Technologies as Tools in Organic and Medicinal Chemistry Projects.* Geoff Tranmer. College of Pharmacy, University of Manitoba

3:15  Break

**Undergraduate Oral Competition**
Chair: Geoff Tranmer


3:50  **[013]** *Ferrocenium Boronic Acid Catalysed Coupling of Alcohols with Borate and Silane Nucleophiles.* Jake Blackner. Department of Chemistry, University of Winnipeg.

4:10  **[014]** *Incorporation of E. coli Integral Membrane Protein Glycerol Facilitator (GlpF) in a Nanodisc Environment.* Shixing Lei. Department of Chemistry, University of Manitoba.

4:30  **[015]** *Dy2ScNbO7: an unconventional spin ice?* Megan Rutherford. Department of Chemistry, University of Winnipeg.

4:50  **[016]** *Design, Synthesis and Evaluation of a Tobramycin-Enoxacin Hybrid against Gram-negative Bacteria.* Liting Bi, Ronald Domalaon, Dr. Frank Schweizer. Department of Chemistry, University of Manitoba.

5:10  **[017]** *Exploring the Effects of Conjugating Bioactive Peptides to the Fluoroquinolone Levofloxacin.* Liam Berry, Ronald Domalaon, Frank Schweizer. Department of Chemistry, University of Manitoba.

5:30  End of Session.
Poster Session, Student Poster Competitions and Reception:
Location: Atrium of Richardson College and Science Complex
5:30 – 7:00 pm.


Undergraduate Student Poster Competition:


Graduate Student Poster Competition:


[023] Phytochemical investigation of Sapium integerrimum. Aisha Majeed. Department of Chemistry, University of Winnipeg and Department of Chemistry, University of Manitoba.


Conformational analysis of 3-mercaptopropionic acid by means of quantum mechanical calculations and Fourier transform microwave spectroscopy. Wesley Guilherme Dias de Paiva Silva. Department of Chemistry, University of Manitoba.


Saturday, May 5

8:00 Registration, coffee/tea

Symposium – Extreme Science

Organizer: Chris Wiebe
Chair: Chris Wiebe

8:30 Applications of High Pressure High Temperature (HPHT) to the synthesis of new materials. Haidong Zhou. Knoxville Department of Physics and Astronomy, University of Tennessee.


9:50 Break

10:10 Cryo-reactions and Arctic marine cryospheric chemistry. Feiyue Wang. Professor and Canada Research Chair in Arctic Environmental Chemistry, Centre for Earth Observation Science, University of Manitoba.

10:40 High pressure routes to new pyrochlores and novel magnetism. Christopher Wiebe. Department of Chemistry, University of Winnipeg.

11:20 End of Session.

General Session

Location: Convocation Hall
Chair: Haidong Zhou


12:00 End of Session.
Symposium – Recent Discoveries in Organic and Medicinal Chemistry – Part2

Location: Convocation Hall
Organizer: Athar Ata
Chair: Chris Boddy

1:00  [041] The exploration of natural product biosynthesis in the Manitoba lichen Cladonia uncialis. John Sorensen, Department of Chemistry, University of Manitoba.


3:05 End of Session
3:05 Break

Graduate Student Oral Competition:
Location: Convocation Hall
Chair: Bryan Hill


3:40  [047] Fusion of polymyxin B3 to tobramycin result to a heterodimeric antibiotic hybrid with selective antibacterial activity and the ability to enhance potency of other antibiotics against multidrug-resistant Pseudomonas aeruginosa. Ronald Domalaon1, Xuan Yang1, Yinfeng Lyu1,2, George G. Zhanel3, Frank Schweizer1,3. 1 Department of Chemistry, University of Manitoba; 2 Institute of Animal Nutrition, Northeast Agricultural University, China; 3 Department of Medical Microbiology and Infectious Diseases, University of Manitoba.

4:00  [048] Exploring the Solubility, Stability and Dynamics of Integral Membrane Protein Glycerol Facilitator. Mary Hernando. Department of Chemistry, University of Manitoba.


5:20 End of Session

STUDENT AWARDS
Chair: Tabitha Wood

~5:30 Announcement of awards for undergraduate and graduate student competitions for oral presentations and posters.