# 32nd MOOT NMR MiniSymposium, Ottawa

## Program

### Friday October 25th, 2019

7:00 PM  
Informal Mixer, Lowertown Brewery (73 York St)

### Saturday October 26th, 2019; Room E217, Minto Sports Complex (801 King Edward St)

8:30 AM  
Registration and coffee
8:50 AM  
Opening remarks

### Session A: Biomolecular NMR

*Session Chair: Natalie Goto, University of Ottawa*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 AM</td>
<td>Kenote speaker: Elizabeth Meiering</td>
<td>1- Balancing protein stability and strain: (Mis)folding and function defined by NMR</td>
</tr>
<tr>
<td>9:40 AM</td>
<td>Stephen Boulton, McMaster University</td>
<td>2 - Mechanisms of specific versus nonspecific interactions of aggregation-prone inhibitors and attenuators</td>
</tr>
<tr>
<td>10:05 AM</td>
<td>Jeffrey Simmons, Dalhousie University</td>
<td>3 - Linking structure and mechanics in pyriform silk proteins</td>
</tr>
</tbody>
</table>

10:30 AM  
Coffee break

### Session B: New Methods

*Session Chair: Barbara Blackwell, Agriculture and Agri-Food Canada*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:55 AM</td>
<td>Hongzhao Shao, McMaster University</td>
<td>4 - Examining the mechanism of EPAC1 inhibition by NMR spectroscopy</td>
</tr>
<tr>
<td>11:20 AM</td>
<td>Peng Xiao, University of Guelph</td>
<td>5 - Membrane protein unfolding and stability investigated by solid-state NMR</td>
</tr>
<tr>
<td>11:45 AM</td>
<td>Alexandre Poulhazan, Université du Québec à Montréal</td>
<td>6 - First in cell 2D $^{13}$C solid-state NMR assignments of <em>Chlamydomonas reinhardtii</em>’s cell wall and starch.</td>
</tr>
</tbody>
</table>

12:10 PM  
LUNCH

### Session C: Solid-State NMR

*Session Chair: Gang Wu, Queen’s University*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 PM</td>
<td>Will McCombs, University of Prince Edward Island</td>
<td>7 - Non-Destructive methods in the analysis of soil</td>
</tr>
<tr>
<td>1:55 PM</td>
<td>Mohammad Hasani, Chalmers University of Technology</td>
<td>8 - NMR Characterization of the origins of exceptional proton mobility in protic ionic liquid-based fuel cell electrolytes.</td>
</tr>
<tr>
<td>2:20 PM</td>
<td>Justin Medeiros, University of Guelph</td>
<td>9 - Observing effects of cardiolipin on α-synuclein using solid-state nuclear magnetic resonance</td>
</tr>
</tbody>
</table>

2:45 PM  
Coffee break
Session D: Biomolecular NMR

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 3:10 PM | 10 - Characterization of nucleotide binding and dimerization in the bacterial cell division regulator MinD  
Adam Cloutier, University of Ottawa |
| 3:35 PM | 11 - Investigating apelin receptor C-terminal tail interactions with membrane-mimetic micelles  
Tam Pham, Dalhousie University |
| 4:00 PM | 12 - Using NMR to investigate the dynamics and calcium-binding mechanisms of dysferlin C2A domain  
Yuning Wang, University of Western Ontario |
| 4:25 PM | Poster session |
| 7:00 PM | Conference banquet (Metropolitain Brasserie, 700 Sussex Dr) |

Sunday October 27th, 2019; Room 1150, Demarais Building (55 Laurier Ave)

8:45 AM | Coffee

Session E: More Methods

Session Chair: David Bryce, University of Ottawa

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 9:00 AM | Keynote speaker: Glenn Facey, University of Ottawa  
13 - NMR Tips, Tricks and Techniques |
| 9:40 AM | 14 - Structural basis of alpha synuclein assembly toxicity inhibition by human serum albumin  
Rashik Ahmed, McMaster University |
| 10:05 AM | 15 - NMR study of molecular hydrogel system based on bile acids  
Puzhen Li, Université de Montréal |
| 10:30 AM | Coffee break |

Session F: Solid-State NMR Methods

(Session Chair: Bob Berno, McMaster University)

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 10:55 AM | 16 - Tetrel bonds: Evidence and insights obtained from solid state NMR crystallographic investigations of theophylline- and caffeine-based cocrystals  
Scott Southern, University of Ottawa |
| 11:20 AM | 17 - In situ magnetic resonance spectroscopy and imaging of Li-plating onto and diffusion within anodes of Li-ion batteries  
Kevin Sanders, McMaster University |
| 11:45 AM | 18 - Probing carboxylate flipping dynamics in hydrogen-bonded systems by solid-state  
Yizhe (Sherry) Dai, Queen’s University |
| 12:10 PM | Awards presentation and closing remarks |
Thanks to Sponsors of the 32nd MOOT NMR MiniSymposium!

BRUKER

uOttawa

ACP CHEMICALS

Faculté des sciences
Faculty of Science

uOttawa

Département de chimie et sciences
biomoléculaires
Department of Chemistry and
Biomolecular Sciences

NEW ERA

The New Standard in NMR Sampling®

Canadian Science Publishing

Suraj Manrao Science Fund

ELSEVIER