# SYMPOSIUM AGENDA

*(Schedule subject to slight changes)*

## SUNDAY, OCTOBER 29

**Cornell Institute for Food Systems Industry Partnership Program (CIFS-IPP) & Department of Food Science Reception at Stocking Hall**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>4:00-5:00 PM</td>
<td>Registration &amp; Networking</td>
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<tr>
<td>5:00-5:30 PM</td>
<td>Welcome remarks:</td>
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<tr>
<td></td>
<td>Carmen I. Moraru, Symposium Chair</td>
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<td>Olga Padilla-Zakour, Department Chair</td>
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<td>Julie Stafford, CIFS-IPP Industry Liaison</td>
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<td>5:30-6:30 PM</td>
<td>Cornell Food Science facilities tours</td>
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<td>6:30-8:00 PM</td>
<td>Networking Dinner</td>
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## MONDAY, OCTOBER 30

**Symposium at The Statler Hotel**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00-8:30 AM</td>
<td>Registration and continental breakfast</td>
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<tr>
<td>8:30-9:00 AM</td>
<td>Welcome remarks:</td>
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<td></td>
<td>Carmen I. Moraru, Symposium Chair</td>
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<td>Kathryn Boor, Dean, College of Agriculture and Life Sciences</td>
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<td>9:00-9:45 AM</td>
<td>Keynote talk: <em>Validation of novel processing methods for microbial inactivation to ensure compliance with the FSMA preventive controls requirements</em></td>
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<td>Jenny Scott, Senior Adviser, Center for Food Safety and Nutrition, US Food and Drug Administration</td>
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**Session 1: Overview of non-thermal processing methods and critical process factors**

**Moderators:** Carmen I. Moraru, Cornell University and Gustavo Barbosa-Canovas, Washington State University

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<th>Time</th>
<th>Event</th>
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<tr>
<td>9:45-10:15 AM</td>
<td>Current Status of Nonthermal Processing Technologies</td>
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<tr>
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<td>Gustavo Barbosa-Canovas, Washington State University</td>
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<td>10:15-10:30 AM</td>
<td>Coffee Break</td>
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<td>10:30-10:50 AM</td>
<td>High Pressure Processing <em>(HPP, HPH)</em></td>
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<td>Bala Balasubramaniam, The Ohio State University</td>
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10:50-11:10 AM  *Pulsed Electric Field Processing (liquid and solid state)*
   Speaker to be confirmed soon

11:10-11:30 AM  *Light Based Treatments (UV, PL, LED)*
   Carmen I. Moraru, Cornell University

11:30-11:50 AM  *Cold Plasma*
   Nathan Anderson, USDA-FDA

11:50 AM-12:10 PM  *Irradiation*
   Rosana Morreira, Texas A&M University

12:10-12:30 PM  *Combination Treatments Based on Nonthermal Technologies*
   Olga Padilla-Zakour, Cornell University

12:30-1:30 PM  Lunch

**Session 2: Inactivation of microorganisms by non-thermal processing: mechanisms and inactivation kinetics**
   **Moderator:** Randy Worobo, Cornell University

1:30-1:50 PM  *Inactivation of Bacteria: vegetative cells vs. spores*
   Ahmed Yousef, The Ohio State University

1:50-2:10 PM  *Inactivation of Viruses and Protozoa*
   Dallas Hoover, University of Delaware

**Session 3: Regulatory framework and requirements for validation of non-thermal processing methods**
   **Moderators:** Olga Padilla-Zakour, Cornell University and Roman Buckow, CSIRO

2:10-2:30 PM  *Validation for Regulatory Approval of Nonthermal Technologies*
   Randy Worobo, Cornell University

2:30-2:50 PM  *Practical Aspects of Processing Methods Validation from a Regulatory Agency Perspective*
   Nate Anderson, US-FDA

2:50-3:10 PM  *Regulatory Aspects of Novel Technologies and their Validation in the European Union*
   Lilia Ahrné, University of Copenhagen & EFFoST President

3:10-3:30 PM  *Regulatory Aspects of Novel Technologies in Canada*
   Tatiana Koutchma, Agriculture and Agri-Food Canada

3:30-4:00 PM  Coffee Break and Poster Viewing (part I)
**Session 4 (Part I): Examples of validation studies for nonthermal technologies**
*Moderator: Lilia Ahrné, University of Copenhagen & EFFoST President*

4:00-4:20 PM  *Validation of Commercial HPP Treated Products: successes and challenges*
Jessie Usaga, University of Costa Rica and Randy Worobo, Cornell University

4:20-4:40 PM  *Validation of Thermally Assisted High Pressure Processing*
Jason Wan, IFSH

4:40-5:00 PM  *Validation of High Pressure Processing in Australia: the case of HPP treated raw milk*
Roman Buckow, CSIRO, Australia

5:00-5:30 PM  Q&A with all speakers

6:30-7:00 PM  Happy Hour & Networking

7:00 PM  Dinner begins

7:40-8:00 PM  Dinner speaker: *A History of Validation of Food Processing Technologies: success stories and lessons learned*
Larry Keener

8:30 PM  Adjourn

**Tuesday, October 31**

**Symposium Continued at The Statler Hotel**

8:00-8:30 AM  Continental breakfast

**Session 4 (Part II): Examples of validation studies for nonthermal technologies**
*Moderator: Jason Wan, IFSH*

8:30-8:50 AM  *Challenge Trials in Foods with Controlled Microbiota*
Michael Gänzle, University of Alberta, Canada

8:50-9:10 AM  *Models for Validation with Nonthermal Technologies*
Christopher Doona, US Army – Natick

9:10-9:30 AM  *One Technology – Multiple Regulatory Approvals*
Speaker to be confirmed soon

9:30-10:00 AM  Coffee Break and Poster Viewing (part II)

**Session 5 Roundtables: Challenges for the commercial application of non-thermal processing**
*Moderators: Olga Padilla Zakour and Julie Stafford, Cornell University*

10:00-10:30 AM  *Regulatory Agency Perspective*
Panel Lead: Nate Anderson, FDA
Participants to be confirmed soon
10:30-11:00 AM  
**Equipment Manufacturers Perspective**  
Panel Lead: Carole Tonello, Hiperbaric  
Participants to be confirmed soon

11:00-11:30 AM  
**Food Processors, Product Developers and Retailers Perspective**  
Panel Lead: Marcia Walker, 915 Labs  
Participants to be confirmed soon

11:30 AM-12:30 PM  
Lunch

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**Optional Site Visit and Dinner (additional charge)**

1:00 PM  
Departure for Geneva (transportation provided)  
Stop at Taughannock Falls

3:00-4:00 PM  
Visit of the Cornell HPP Validation Center and other nonthermal technologies (Geneva, NY)*  
Tour led by Olga Padilla-Zakour  
*The tour is free. Those interested in attending the tour, but not the dinner, can join us in Geneva but will have to have their own transportation.

4:30 PM  
Departure for Glenora Wines on Seneca Lake

6:00-8:00 PM  
Wine-food Pairing Dinner at Glenora Wines

8:00 PM  
Return to Ithaca

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**Sponsored by:**

- NIFA  
- CIFS  
- Cornell Institute for Food Systems  
- Food Protection

**Co-organizers:**

- Cornell University Department of Food Science  
- IFT  
- EFFoST