SYMPOSIUM AGENDA

SUNDAY, OCTOBER 29
Cornell Institute for Food Systems Industry Partnership Program (CIFS-IPP) & Department of Food Science Reception, Stocking Hall Lobby

4:00-5:00 PM  Registration & Networking

5:00-5:30 PM  Welcome remarks:
Olga Padilla-Zakour, Department Chair  
Julie Stafford, CIFS-IPP Industry Liaison Officer  
Carmen I. Moraru, Symposium Chair

5:30-6:30 PM  Cornell Food Science facilities tours

6:30-8:00 PM  Networking Dinner

MONDAY, OCTOBER 30
Symposium at The Statler Hotel, Carrier Ballroom

8:00-8:30 AM  Registration and continental breakfast

8:30-9:00 AM  Welcome remarks:
Carmen I. Moraru, Symposium Chair  
Kathryn Boor, Dean, College of Agriculture and Life Sciences  
Isabel Walls, National Program Leader, Food Safety, USDA-NIFA

9:00-9:45 AM  Keynote talk: "Validation of novel processing methods for microbial inactivation to ensure compliance with the FSMA preventive controls requirements"
Jenny Scott, Senior Adviser, Center for Food Safety and Nutrition, US Food and Drug Administration

Session 1: Overview of non-thermal processing technologies and critical process factors
Moderators: Carmen I. Moraru, Cornell University and Gustavo Barbosa-Canovas, Washington State University

9:45-10:15 AM  Current Status of Nonthermal Processing Technologies
Gustavo Barbosa-Canovas, Washington State University

10:15-10:35 AM  High Pressure Processing (HPP, HPH)
Bala Balasubramaniam, The Ohio State University

10:35-11:00 AM  Coffee Break and Poster Viewing
11:00-11:20 AM  
*Pulsed Electric Field Processing (liquid and solid state)*
Howard Zhang, USDA - Beltsville Agricultural Research Center

11:20-11:40 AM  
*Light Based Treatments (UV, PL, LED)*
Carmen I. Moraru, Cornell University

11:40 AM-12:00 PM  
*Cold Plasma*
Brendan Niemira, USDA-ARS Eastern Regional Research Center

12:00 -12:20 PM  
*Irradiation*
Rosana Morreira, Texas A&M University

12:20-1:30 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

2:10-2:30 PM  
*Models for Validation with Nonthermal Technologies*
Christopher Doona, US Army – Natick

**Session 3: Regulatory framework and requirements for validation of non-thermal processing technologies**

**Moderators:** Olga Padilla-Zakour, Cornell University and Roman Buckow, CSIRO

2:30-2:50 PM  
*Validation for Regulatory Approval of Nonthermal Technologies*
Randy Worobo, Cornell University

2:50-3:10 PM  
*Practical Aspects of Processing Methods Validation from a Regulatory Agency Perspective*
Yinqing Ma, US-FDA

3:10-3:30 PM  
Coffee Break and Poster Viewing

3:30-3:50 PM  
*Regulatory Aspects of Novel Technologies and their Validation in the European Union*
Lilia Ahrné, University of Copenhagen & EFFoST President

3:50-4:10 PM  
*Regulatory Aspects of Novel Technologies in Canada*
Tatiana Koutchma, Agriculture and Agri-Food Canada
Session 4 (Part I): Examples of validation studies for nonthermal technologies
Moderators: Lilia Ahrné, University of Copenhagen & EFFoST President and Jason Wan, IFSH

4:10-4:30 PM  Validation of Thermally Assisted High Pressure Processing  
Jason Wan, IFSH

4:30-4:50 PM  Validation of High Pressure Processing in Australia: the case of HPP treated raw milk  
Roman Buckow, CSIRO, Australia

4:50-5:10 PM  One Technology – multiple regulatory approvals: Validation of low-energy electron beam for the treatment of low moisture foods  
Nicolás Meneses, Bühler AG, Switzerland

5:10-5:30 PM  Q&A with all speakers

6:30-7:00 PM  Happy Hour & Networking, Terrace Restaurant Lounge

7:00 PM  Dinner, Terrace Restaurant

7:40-8:00 PM  Dinner speaker: Larry Keener, President and CEO, International Product Safety Consultants  
A History of Validation of Food Processing Technologies: success stories and lessons learned

8:30 PM  Adjourn

Tuesday, October 31

Symposium Continued at The Statler Hotel, Carrier Ballroom

8:00-8:30 AM  Continental breakfast

Session 4 (Part II): Examples of validation studies for nonthermal technologies
Moderator: Christopher Doona, US Army – Natick and Howard Zhang, USDA

8:30-8:50 AM  Validation of Commercial HPP Treated Products: successes and challenges  
Jessie Usaga, University of Costa Rica and Randy Worobo, Cornell University

8:50-9:10 AM  Challenge Trials in Foods with Controlled Microbiota  
Michael Gänzle, University of Alberta, Canada

9:10-9:30 AM  Case Studies of Validation of Combination Nonthermal Treatments  
Olga Padilla-Zakour, Cornell University

9:30-10:00 AM  Coffee Break and Poster Viewing
**Session 5 Roundtables: Challenges for the commercialization of non-thermal processing**

**Moderators:** Olga Padilla Zakour and Julie Stafford, Cornell University

**10:00-10:30 AM**

**Regulatory & Inspection Perspective**

Panel Lead: David Whitman, FDA

Participants: John Luker, NY State Department of Agriculture and Markets, Division of Food Safety and Inspection

Larry Keener, International Product Safety Consultants

**10:30-11:00 AM**

**Equipment Manufacturers Perspective**

Panel Lead: Carole Tonello, Hiperbaric (Spain)

Participants: Kemal Aganovic, ELEA (Germany)

Nali Prchal, Avure/JBT (US)

**11:00-11:30 AM**

**Food Processors, Product Developers and Retailers Perspective**

Panel Lead: Marcia Walker, High Pressure Processing Expert

Participants: Brian Mayer, Campbell Soup; Bill Strassburg, Wegmans

Hido Malic, Agrana

**11:30 AM-12:30 PM**

Lunch

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

1:00 PM  
Departure for Geneva (*bus transportation provided for registered participants*)

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 arrange 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

**Sponsored by:**

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

**Co-organizers:**

Cornell University, Department of Food Science, IFS, NFO, IFT, EFoST