2025 Starch Round Table

November 9-11, 2025

Hilton Minneapolis/Bloomington, Minnesota, USA

Venue and Dates:

The 2025 Starch Round Table (SRT) will be held from November 9 to 11, 2025 in Hilton Minneapolis/Bloomington, Minnesota (3900 American Blvd W, Bloomington, MN 55437). This event will take place just before the Cereals & Grains Association (CGA) Annual Conference, which is set for November 12-13, 2025 in Intercontinental Saint Paul Riverfront in Saint Paul, Minnesota. Please note that the CGA Annual Conference is a separate event and requires its own registration if you plan to attend. SRT attendees can get $100 discount using code **CGA25SRTD** at check out.

Hotel

You can now make a hotel reservation for the SRT event. The room is $134.00 per night plus 16.03% tax. Below are the ways to book the hotel.

- Online (Recommended): Booking Link: Hilton Minneapolis/Bloomington booking
- Hilton Honors Mobile App: When searching for a hotel, click “Special Rates” and enter “95F” under “Group code”. Note this group code is specific to the Hilton Minneapolis/Bloomington
- Telephone: Please call 844-856-8554 and ask for group code “95F”. When calling, please confirm hotel address is 3900 American Boulevard West, Bloomington, MN 55437 (off 494/France Avenue) as there is two Hilton’s on American Boulevard in Bloomington.

Registration:

Please register for the SRT on the website: https://commerce.cashnet.com/KSUGSI.

Tentative Technical Program: chaired by Yongfeng Ai (University of Saskatchewan, Canada)

November 9 (Sunday), Afternoon and Evening

Networking, Welcome reception, Keynote presentation

3:00 – 5:00	Registration (pick up name tags)	Entrance
3:00 – 5:00	Poster setup	American Ballroom
5:00 – 6:00	Welcome reception	Foyer A&B
6:00 – 7:30	Dinner	American Ballroom

7:30 – 7:45	Opening Remarks	
7:45 – 8:45	Keynote Speaker *The Future of Sustainable Materials from Carbohydrates*. **Kris Lutt** (President-Sustainable Materials and Strategic Initiatives, ADM, USA)	
9:00 –	Social Hour	American Ballroom

November 10 (Monday), Morning

7:00 – 8:00	Breakfast	Foyer A

Session 1. Biosynthesis and bioengineering of starch, chaired by Samuel C. Zeeman (ETH Zurich, Switzerland)

8:00 – 8:15	Introduction	American Ballroom
8:15 – 8:55	*Non-catalytic functions of isoamylase in determination of starch content in maize endosperm*. **Alan Myers**, Iowa State University, USA	
8:55 – 9:35	*Cooperative function of LESV and ISA1 in regulating the early steps of starch synthesis in potato amyloplasts*. **Nicolas Szydlowski**, Université de Lille, France	
9:35 – 10:15	*How non-enzymatic coiled-coil proteins regulate starch granule biogenesis in chloroplasts?* **Mayank Sharma**, ETH Zurich, Switzerland	
10:15 – 10:35	Break	Foyer A
10:35 – 11:15	*Effects of global warming on japonica rice starch structure*. **Naoko Fujita**, Akita Prefectural University, Japan	
11:15 – 11:55	*From lab to loaf: Engineering wheat starch for quality and health.* **Brittany Hazard**, Quadram Institute, UK	
12:00 – 1:30	Lunch	Foyer A

November 10 (Monday), Afternoon

Session 2. Structure, function, and nutrition of starch, chaired by Sushil Dhital (Monash University, Australia)

1:30 – 1:45	Introduction	American Ballroom
1:45 – 2:25	*Starch and derived structures with gut-brain axis activating potential*. **Bruce Hamaker**, Purdue University, USA	
2:25 – 3:05	*Insights into heterogeneous enzyme catalysis on starch granules.* **Birte Svensson**, Technical University of Denmark	
3:05 – 3:45	*A closer look at type 4 resistant starch (RS4) characteristics that impact their functionalities*. **Wajira Ratnayake/ Maryvonne Fuentes,** Ingredion, USA	
3:45 – 4:05	Break	Foyer A

4:05 – 4:45	*Catalyst-free interaction of starch with functional moieties: Leveraging covalent and non-covalent bonding to enhance properties.* **Mario Martinez-Martinez**, Aarhus University, Denmark	
4:45 – 5:25	*Gut microbial degradation patterns of resistant starch*. **Bin Zhang**, South China University of Technology, China	

November 10 (Monday), Evening

6:00 – 7:30	Dinner	American Ballroom
7:30 – 9:00	Poster and cocktail social at the hotel	American Ballroom

November 11 (Tuesday), Morning

7:00 – 8:00	Breakfast	Foyer A

Session 3. Applications and enzymology of starch, chaired by Birte Svensson (Technical University of Denmark, Denmark)

8:00 – 8:15	Introduction	American Ballroom
8:15 – 8:55	*Application of non-thermal processes (?) on starch structure on multiple length scales*. **Sushil Dhital**, Monash University, Australia	
8:55 – 9:35	*Amylose-based nanosystems: Nanocomposites and small starch nanoparticles.* **Andreas Blennow**, Blennow Holding AB, Sweden	
9:35 – 10:15	*Creating new business domains from starch science*. **Takashi Kuriki**, Ezaki Glico Co., Ltd., Japan	
10:15 – 10:35	Break	Foyer A
10:35 – 11:15	*Phosphorolytic conversion of starch into value-added carbohydrates*. **Tom Desmet**, Ghent University, Belgium	
11:15 – 11:55	*CBM74 structure and function in the gut microbiome*. **Nicole Koropatkin**, University of Michigan, USA	
12:00 – 1:00	Lunch	Foyer A

November 11 (Tuesday), Afternoon

Session 4. Lightning talks, chaired by Lingyan Kong (University of Alabama, USA)

1:00 – 2:30	Lightning talks	American Ballroom
2:30 – 2:45	Break	Foyer A
2:45 – 4:00	Lightning talks	American Ballroom
4:00 – 4:15	Closing	American Ballroom

Lightning talks (Tentative)

1. Hydrolysis-Induced Molecular Reorganization of Starches and Its Role in Biodegradable Film Architecture, **Paloma López Sarmiento, Julián de la Rosa Millán,** Tecnológico de Monterrey, Mexico

2. Infrared-induced functional modification of pea flour for optimizing quality of extruded puffed snacks, **Kashika Sethi[1], Ke Ding[1], Mikaela Gobeil[2] and Yongfeng Ai[1]** , Department of Food and Bioproduct Sciences, University of Saskatchewan, [2] InfraReady Products (1998) Ltd., Saskatoon, SK, Canada

3. What is the true amylose content in pea starch and high-amylose wheat starch? **Yong-Cheng Shi, Jing Qi, Dongxing Li**, Department of Grain Science and Industry, Kansas State University, Manhattan, KS 66506, USA

4. Flexible and conductive pea starch-polyvinyl alcohol hydrogel with freezing tolerance for sensor applications, **Chengyong Zhu, Gexiao Sun, Candy Ding, Yongfeng Ai.,** Department of Food and Bioproduct Sciences, University of Saskatchewan, Canada

5. Multifunctional Resistant Starch Complexes, **Les Copeland[1] , Shujun Wang**[2], [1]School of Life and Environmental Sciences, The University of Sydney, NSW 2006, Australia, [2]State Key Laboratory of Food Nutrition and Safety and School of Food Science and Engineering, Tianjin University of Science and Technology, Tianjin 300457, China

6. Purpose-Built Lipid–Starch Complexes in Nixtamalized Maize Tacos Attenuate Post-Prandial Glycemia in Mice, **Julián de la Rosa-Millán,** Tecnologico de Monterrey, Escuela de Ingeniería y Ciencias. Centro de Biotecnología FEMSA. Av. Eugenio Garza Sada 2501. Monterrey, Nuevo Leon, Mexico

7. Effects of Protein Matrix on Pasting Properties of Waxy Sorghum Flours, **Ying Huang[1]; Xiaorong Wu[2]; Scott R. Bean[2]; Yong-Cheng Shi[1],** [1] Department of Grain Science and Industry, Kansas State University, Manhattan, KS 66506, USA; [2] Grain Quality and Structure Research Unit, Center for Grain and Animal Research, USDA-ARS, Manhattan, KS 66502, USA

8. Comparison of Amperometric and Enzymatic Methods to Measure Damaged Starch Content in Pulse Flours with Different Particle Sizes, **Bei Shen, Jing Qi, Yonghui Li, Kaliramesh Siliveru, Yong-Cheng Shi,** Department of Grain Science and Industry, Kansas State University, Manhattan, KS 66506, USA

9. Engineering Starch Granule Morphology in Wheat for Industrial Use and Nutrition, **Petros Zafeiriou, David Seung, John Innes Centre,** Petros Zafeiriou, David Seung, John Innes Centre, UK

10. Deciphering the Roles of Starch Phosphorylase during Starch Granule Initiation in Arabidopsis Leaves, **Liping Wang, Ian Tetlow, Michael Emes,** Department of Molecular and Cellular Biology, University of Guelph, Guelph, ON N1G 2W1, Canada

11. One-Step Enzymatic Remodeling of Diverse Starch Structures by Amylosucrase for Enhanced Digestive Resistance and Functional Performance, **Minwei Xu,** Department of Plant Sciences, North Dakota State University, Fargo, ND 58108, USA

12. Wheat Quality: Reconsidering Starch as a Major Contributor Alongside Protein, **M. Hikmet Boyacioglu,** KPM Analytics. Westborough, MA, USA

Posters (Tentative)

1. Resistant starch primary degraders as drivers of butyrate production from resistant starch, **Rodriguez-Quiles R., Paff, A.M., Pickens, T.L., DeMartino, P.D., Cockburn, D.W.,** Department of Food Science, The Pennsylvania State University, University Park, PA 16802, USA

2. Reducing residual maltose in low alcohol beer: A novel approach to using non-Saccharomyces yeast in brewing. **Mohini Basu, Ryan Elias, Darrell Cockburn.** Department of Food Science, Pennsylvania State University, USA

3. In vitro fermentation of type 2 resistant pulse starches by human fecal inoculum from two types of consumers. **Andrew Paff, Darrell Cockburn.** The Department of Food Science, Pennsylvania State University, USA

4. Analysis of starch structure in different organs of rice lines lacking starch synthase (SS) IIb. **Satoko Miura[1, 2], Hiroki Odajima[1], Shugo Hirata[3], Naoko Crofts[4], Ryutaro Morita[3], Naoko Fujita[1, 2],** [1] Faculty of Bioresource Sciences, Akita Prefectural University, [2] Starch Technologies Co., LTD, [3] The University of Tokyo, [4] National Institute of Technology, Akita College, Japan

Starch Round Table Executive Committee Members:

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