

Protein Basics Short Course

March 27th & 28th, 2023

St Paul Student Center
2017 Buford Ave, St Paul, MN 55108
Cherrywood Room



Plant Protein Innovation Center



FOOD SCIENCE AND NUTRITION

Monday, March 27th, 2023

7:30 – 8:15 am

Registration and Networking Breakfast

8:15 – 8:30

Welcome and Introductions

B. Pam Ismail, PPIC Director & Founder, Professor, University of Minnesota

8:30 – 9:45

Overview of Food Proteins and Trends (Topic 1)

B. Pam Ismail, PPIC Director & Founder, Professor, University of Minnesota

9:45 – 10:00

Break

10:05 – 11:25

Protein Chemistry and Functionality: Relating Structure to Function (Topic 2)

B. Pam Ismail, PPIC Director & Founder, Professor, University of Minnesota

11:30 am – 12:30 pm

Lunch

12:35 – 1:20

Formulating with Proteins: Technical Challenges & Consumer Acceptance (Topic 3)

Don Moss, Principal Development Scientist, Conagra Brands

1:25 – 2:35

Holistic Formulation Approaches and Strategies to Develop Plant-Based Foods (Topic 4)

Dilek Uzunalioglu, Senior Director, Food Discovery & Design, Motif FoodWorks

2:40 – 3:00

*Transition to Food Science and Nutrition Department
FScN, Room 15*

3:00 – 3:50

*Groups Oat and Camelina: Protein Extraction and Modifications
Structural Characterization and Functionality Testing*

Groups Hemp and Chickpea: Product Formulation with Dilek Uzunalioglu

3:50 – 4:10

Refreshments & Networking in Room 15

4:10 – 5:00

Groups Oat and Camelina: Product Formulation with Dilek Uzunalioglu

*Groups Hemp and Chickpea: Protein Extraction and Modifications
Structural Characterization and Functionality Testing*

6:00 – 8:00

Networking Dinner (pre-reserved add-on)

Axel's Restaurant, 2540 Cleveland Ave N, Roseville, MN



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FOOD SCIENCE AND NUTRITION

Tuesday, March 28th, 2023

7:30 – 8:00

Networking breakfast

8:00 – 9:00

Protein Modification to Enhance Functionality (Topic 5)
B. Pam Ismail, PPIC Director & Founder, Professor, University of Minnesota

9:05 – 10:20

Principles and practice of plant protein extrusion (Topic 6)
Job Ubbink, Professor and Head, University of Minnesota

10:20 – 10:35

Break

10:40 – 11:40

Proteins and Flavor (Topic 7)
Gary Reineccius, Professor Emeritus, University of Minnesota

11:40 am – 12:40 pm

Lunch

12:40 – 1:00

Transition to Food Science and Nutrition Department
FScN, Room 15

1:00 – 1:50

Groups Oat and Camelina: Extrusion Demonstration
Belal J. Muhialdin, Research Manager, University of Minnesota

Groups Hemp and Chickpea: Protein Isolation Illustration in the Pilot Plant,
Mitchell Maher, Researcher, Pilot Plant, University of Minnesota

1:55 – 2:45

Groups Oat and Camelina: Protein Isolation Illustration in the Pilot Plant,
Mitchell Maher, Researcher, Pilot Plant, University of Minnesota

Groups Hemp and Chickpea: Extrusion Demonstration
Belal J. Muhialdin, Research Manager, University of Minnesota

2:45 – 3:15

Refreshments & Networking in Room 15

3:15 – 4:05

Groups Oat and Camelina: Laboratory Demonstrations:
Emulsion Formation & Spray-Drying
Protein-Flavor Interactions

Groups Hemp and Chickpea: Application: Product Tasting with Dilek Uzunalioglu

4:10 – 5:00

Groups Oat and Camelina: Application: Product Tasting with Dilek Uzunalioglu
Groups Hemp and Chickpea: Laboratory Demonstrations:
Emulsion Formation & Spray-Drying
Protein-Flavor Interactions

