

# 2nd Protein Basics Short Course

December 6-7<sup>th</sup>, 2021

Continuing Education and  
Conference Center  
1890 Buford Ave St. Paul, MN 55108  
Room #135



## Monday, December 6<sup>th</sup>, 2021

7:30 – 8:15 am

*Registration and Networking Breakfast*

8:15 – 8:30

### ***Welcome and Introductions***

Pam Ismail, Professor and PPIC Director, U of M

8:30 – 9:45

*Overview of Food Proteins and Trends (Topic 1)*

Pam Ismail

9:45 – 10:00

**Break**

10:05 – 11:25

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

Pam Ismail

11:30 am – 12:30 pm

**Lunch**

12:35 – 1:20

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

Michelle Manderfeld, Senior R&D Manager, General Mills

1:25 – 2:35

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

Dilek Uzunalioglu, R&D Leader and Director, Motif

2:40 – 3:00

*Transition to Food Science and Nutrition Department*

FScN, Room #23

3:00 – 3:50

Group A: Protein Extraction, Dialysis, & Filtration  
Protein Modifications

Group B: Product Formulation with Dilek Uzunalioglu

3:50 – 4:10

***Refreshments & Networking in Room 23***

4:10 – 5:00

Group A: Product Formulation with Dilek Uzunalioglu

Group B: Protein Extraction, Dialysis, & Filtration  
Protein Modifications

6:00 – 8:00

**Dinner (optional)**

Nico's Taco Bar 2260 Como Ave St. Paul, MN 55108



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Plant Protein  
Innovation Center



FOOD SCIENCE  
AND NUTRITION

### Tuesday, December 7<sup>th</sup>, 2021

7:30 – 8:00 am	<i>Networking breakfast</i>
8:00 – 8:45	<i>Protein Modification to Enhance Functionality (Topic 5)</i> Pam Ismail
8:50 – 10:15	<i>Principles and practice of plant protein extrusion (Topic 6)</i> Job Ubbink, Professor and Head, University of Minnesota
10:15 – 10:30	<b>Break</b>
10:30 – 11:30	<i>Proteins and Flavor (Topic 7)</i> Gary Reineccius, Professor, U of M
11:30 am – 12:30 pm	<b>Lunch</b>
12:30 – 1:00	<i>Transition to Food Science and Nutrition Department</i> FScN, Room #23
1:00 – 1:50	<u><i>Group A: Laboratory Demonstrations:</i></u> Structural Characterization Functionality Testing
	<u><i>Group B: Protein Isolation Illustration in the Pilot Plant,</i></u> Mitchell Maher, Researcher, Pilot Plant, U of M
1:50 – 2:40	<u><i>Group A: Protein Isolation Illustration in the Pilot Plant,</i></u> Mitchell Maher, Researcher, Pilot Plant, U of M
	<u><i>Group B: Laboratory Demonstrations:</i></u> Structural Characterization Functionality Testing
2:40 – 3:10	<b>Refreshments &amp; Networking in Room 23</b>
3:10 – 4:00	<u><i>Group A: Laboratory Demonstrations:</i></u> Emulsion Formation & Spray-Drying Protein-Flavor Interactions
	<u><i>Group B: Application: Product Tasting with Dilek Uzunalioglu</i></u>
4:00 – 4:50	<u><i>Group A: Application: Product Tasting with Dilek Uzunalioglu</i></u>
	<u><i>Group B: Laboratory Demonstrations:</i></u> Emulsion Formation & Spray-Drying Protein-Flavor Interactions

