Access

IAB FALL 2021 MEETING, NOV 9-10

Monday, November 8
3:00-4:30 PM (CT)
Zoom Link

Tuesday, November 9
9:00 AM – 3:10 PM (CT)
Zoom Link

Wednesday, November 10
9:00 AM – 12:00 PM (CT)
Zoom Link

VENUE LOCATION: ZOOM
Note: the same link is being used for all three days. Full meeting details a below.

Join Zoom Meeting
https://ndsu.zoom.us/j/91684090796?pwd=K1ByT3Fhd3NqU3czMDY1WG5FWlI5Q2Jh0

Meeting ID: 916 8409 0796
Passcode: 112294
One tap mobile
+13462487799, 91684090796# US (Houston)
+1669906833, 91684090796# US (San Jose)

Dial by your location
+1 346 248 7799 US (Houston)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 312 626 6799 US (Chicago)
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Meeting ID: 916 8409 0796
Find your local number: https://ndsu.zoom.us/u/acNx4IrZfn

Join by SIP
91684090796@zoomcrc.com
Join by H.323
162.255.37.11 (US West)
162.255.36.11 (US East)
Meeting ID: 916 8409 0796
Passcode: 112294
Agenda

Monday, November 8

3:00 PM CT  WELCOME AND LOGISTICS OF SOCIAL
David Grewell
ZOOM open to all – ten minutes
Randomized break out rooms
15 minutes each
Move four times (~one hour)

Tuesday, November 9

9:00 AM CT  WELCOME AND LOGISTICS OF ZOOM
• David Grewell, Center Director

9:05 AM CT  Q&A ON UPDATE ON CENTER ACTIVITIES-VIDEO
• David Grewell, Center Director
• Washington State University Update
• North Dakota State University Update
• Iowa State University Update
• University of Georgia Update
• Phase II

9:15 AM CT  NSF I/UCRC PROGRAM
• Kevin Christopher, NSF Assessment Coordinator

9:30 AM CT  PROJECT L.I.F.E. REVIEW
Prerecorded presentations will be provided.
Projects requesting continuation of funding.

Ten minutes per project of discussion and completion of Level of Interest Feedback Evaluation [LIFE] form.

9:30 AM  C1 Plant Oil Based Latex Adhesives
Andriy Voronov, Ghasideh Pourhashem, North Dakota State University

9:40 AM  C2 Closed-Loop Control for Strengthening 3D Printed (FDM) Parts Through Ultrasonic Welding
Lokesh Narayanan, David Grewell, North Dakota State University

9:50 AM  C4 Investigating Root Cause and Reduce Fogging Behavior of Natural Fiber Filled Thermoplastics
Ali Amiri, Chad Ulven, North Dakota State University

10:00 AM CT  BREAK
10:20 AM  C5 Life Cycle Assessment (LCA) Tool for Sustainable Bio-based Coating Material Design
Ke Li, Jason Locklin, Dean Webster, University of Georgia/North Dakota State University

10:30 AM  C6 Bio-Based Core-Shell Impact Modifiers to Increase Toughness of Composites and Adhesives
Eric Cochran, Iowa State University

10:40 AM  C7 Exploration of Bio-Based Functional Building Blocks for Durable Coatings
Dean Webster, Mukund Sibi, North Dakota State University

10:50 AM  C8 Investigation of the Marine Degradability of Polymers of Interest to IAB Members
Branson Ritchie, University of Georgia

11:00 AM CT  PROJECT L.I.F.E. REVIEW
Prerecorded presentations will be provided.
Projects requesting new funding.

11:00 AM  N1 The Little-Known Nylon: Nylon 59 Properties
Eric Cochran, Jason Locklin, Iowa State University/University of Georgia

11:10 AM  N2 Bioadvantaged Nylons for Biobased Packaging
Jessica Vold, Dean Webster, Erik Hagberg, North Dakota State University

11:20 AM  N3 Exploration of the Enzymatic Hydrolysis of PLA-Based Polyester Blends Using Embedded Enzymes
Evan White, Breeanna Urbanowicz, Jason Locklin, University of Georgia

11:30 AM CT  BREAK

12:00 PM CT  IAB LUNCH (IAB RETURNS TO MAIN ZOOM ROOM FOR FINAL DIRECTIONS)

1:00 PM CT  PROJECT L.I.F.E. REVIEW
Prerecorded presentations will be provided.
Projects requesting new funding, continued.

1:00 PM  N4 Natural Fiber-Based Alternatives for Flexible Packaging in E-Commerce
Lokesh Narayanan, Chad Ulven, North Dakota State University

1:10 PM  N5 Lignin-Derived Functional Materials for the Preparation of Biopolymers
Xiao Zhang, Udishnu Sanyal, Jinwen Zhang, Washington State University

1:20 PM  N6 Natural Fiber Reinforced Nylon-Based Composites for Under the Hood Applications
Vikram Yadama, Raul Pelaez-Samaniego, Manuel Garcia-Perez, Washington State University
N7 Bio-Based Coatings for High-Performance Flexible Paper Packaging Application  
Suraj Sharma, Sudhagar Mani, University of Georgia

N8 Evaluation of Polyethylene Furoate (PEF) Fiber Spinning and Degradation in the Marine Environment  
Hang Liu, Chunhui Xiang, Washington State University/Iowa State University

N9 Soybean Derived Thermoplastics for Improved Bioplastic Performance  
Jason Locklin, Eric Cochran, University of Georgia/Iowa State University

N10 Disk Refined Recycled Plastic Packaging and Natural Fiber Composites  
Karl Englund, Hui Li, Washington State University

N11 Increasing PLA Biodegradability in Natural Environments Through Incorporating Thermoplastic Starch and Enzymes  
Long Jiang, Mohammad Sabzi, North Dakota State University

N12 Development of Hemp Oil-Based Biodegradable Coatings on Paper Cups/Paperboards  
Lingling Liu, Iowa State University

N13 Hybrid Bio/Catalytic Production of Monomers from Lignocellulose  
Mark Eiteman, James Kastner, University of Georgia

N14 Bio-Derived Uretidiones for Isocyanate-Free Polyurethanes  
Michael Forrester, Iowa State University

N15 Hemicellulose Derived Commodity Chemicals for Packaging and Coating Applications  
Breeanna Urbanowicz, Maria Pena, Sergiy Minko, University of Georgia

N16 Upcycling of PET and PLA Plastic Wastes into Aliphatic-aromatic Biodegradable Block Copolymers for Packaging Applications  
Jinwen Zhang, Washington State University

TODAY’S WRAP UP  
David Grewell, Center Director

ADJOURN
Wednesday, November 10

9:00 AM CT  READOUT AND DISCUSSION OF LIFE FORMS  
             Chair of IAB (Kelly Williams)/ALL

10:00 AM CT  IAB Meeting

11:30 AM CT  ANNOUNCE PROPOSALS/ACTION ITEMS AND PLAN FOR NEXT SEMIANNUAL MEETING  
             Chair of IAB (Kelly Williams)/ALL

11:45 AM CT  PM SUMMARY AND CLOSING REMARKS

12:00 AM CT  PI’S TRAINING AND EXPECTATIONS (MANDATORY FOR ALL PIS)