Monday, October 28, 2019
4:30 PM  Program Committee/Moderators Meeting – Bluebell Room
5:00 - 7:00  Registration (Dinner on your own) – Red Oak Foyer

7:00 – 9:00 PM Opening Session – Red Oak Ballroom
Moderator: Todd Callaway, University of Georgia
Welcome & Recognitions - Larry Miller, DISCOVER Conference Series and DC37 Co-chairs Todd Callaway, University of Georgia and Johan Osorio, South Dakota State University
Conference Keynote Speaker: Natural Bioactives: Looking for Answers to Questions We Haven’t Found. Ken Griswold, Trouw Nutrition USA
Welcome Reception – Prairie River (lower level)

Tuesday, October 29, 2019
7:00 - 8:00 AM  Continental Breakfast – Black Break Area, Red Oak Foyer

8:00 AM – 12:30 PM Session 1: Microbial Modification
Moderator: Todd Callaway, University of Georgia
Welcome and Announcements. Larry Miller, DISCOVER Conference Series and DC37 Co-chairs Todd Callaway, University of Georgia and Johan Osorio, South Dakota State University
Modifying the Microbiome. Garret Suen, University of Wisconsin-Madison
Using Organic Acids to Modify the Microbiome. Todd Callaway, University of Georgia
Discussion by all participants
10:00-10:30  Break
Phytochemicals as Antibiotic Alternatives: Mechanism of Action to Promote Gut Health, Host Immunity, and Growth Promotion. Hyun Lillehoj, USDA-ARS
Targeting Bile Acids in Dairy Production. Ignacio Ipharraguerre, University of Kiel, Germany
Discussion by all participants
12:30 – 1:30 PM Lunch - Burnham’s Restaurant

1:30 – 5:15 PM Session 2: Innate Immunity
Moderator: Johan Osorio, South Dakota State University
Immunology Background – The Mucosa is Where all the Action Is. Chris Chase, South Dakota State University
Oligosaccharides Active in the Immune System. Charlie Elrod, Natural Biologics
Discussion by all participants
3:00 - 3:30 Break. Poster presenters to hang posters.
Extracellular matrix molecules and innate immunity. Anna Piccinini, University of Nottingham, UK
Nutrient Sensing of Innate Immune Cells. Sabine Mann, Cornell University
Discussion by all participants
5:15  Adjourn
Poster Session & Reception: all poster presenters should be present - Red Oak Foyer, Hollyhock and Arrowhead

Wednesday, October 30, 2019
7:00 - 8:00 AM Continental Breakfast – Black Break Area, Red Oak Foyer

8:00 AM – 12:30 PM Session 3: Adaptive Immunity
Moderator: Charlie Elrod, Natural Biologics
Adaptive Immunity – The Basics. Jeff Carroll, USDA-ARS
Innate Immune Responses to Metabolic Stress in the Forestomachs. Erminio Trevisi, Catholic University of the Sacred Heart, Italy
Discussion by all participants
10:00 – 10:30 Break
Developing and Sustaining Health Defense in the Growing Calf. Brian Aldridge, University of Illinois
Bioactives in Dairy Cattle – Adaptive Immunity. Mike Ballou, Texas Tech University
Discussion by all participants
12:30 – 1:30 PM Lunch - Burnham’s Restaurant

1:30 – 5:15 PM Session 4: Redox Potential and Cellular Stress
Moderator: Gerd Bobe, Oregon State University
Oxidative Stress Backgrounder. Lorraine Sordillo, Michigan State University
Lipolysis Derived Bioactive Lipids: Modulators of Adipose Tissue Metabolic Function. Andres Contreras, Michigan State University
Discussion by all participants
3:00 – 3:30 Break
Antioxidants. Gerd Bobe, Oregon State University
Non-Steroidal Anti-Inflammatory Drugs (NSAID) and Their Impacts in Dairy Cattle. Barry Bradford, Kansas State University
Discussion by all participants
5:15 Adjourn. Removal of posters

Thursday, October 31, 2019
7:00 - 8:00 AM Continental Breakfast – Black Break Area, Red Oak Foyer

8:00 – 11:45 AM Session 5: Research Methodology and Application
Moderator: Ken Griswold, Trouw Nutrition
System of Identifying & Isolating Natural Bioactives. Paul Engler, Nor-Feed, France
Strategies for Scaling Bioactive Molecule Production Using Plants as Manufacturing Vehicles. John Greaves, Kemin Industries
Discussion
9:30 – 10:00 Break
Panel: Validating Solutions in Animal Models
Nutritionist: Jed Asmus, January Innovation
Veterinarian: Jim Ferguson, University of Pennsylvania
Research Scientist: Gerd Bobe, Oregon State University
Discussion
11:45 Wrap-up & Adjourn