

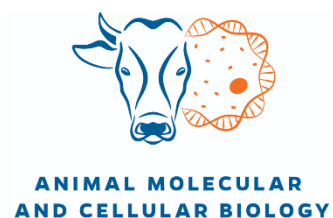
ANIMAL MOLECULAR AND CELLULAR BIOLOGY GRADUATE PROGRAM

TWENTY FOURTH ANNUAL RESEARCH SYMPOSIUM



Cape Canaveral
Florida

May 14-15, 2026



WELCOME

On behalf of all the AMCB faculty, welcome to the 24th Annual Research Symposium of the AMCB.

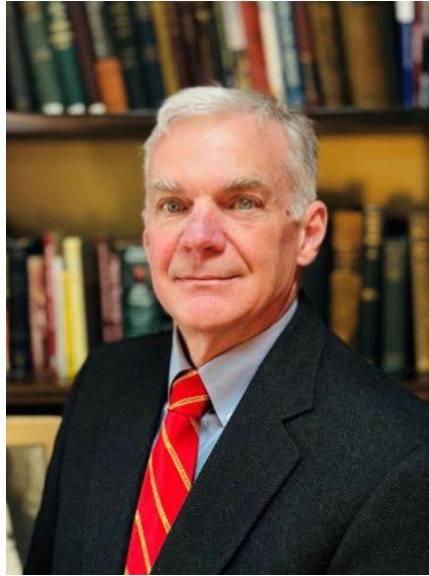
This year's symposium is being held at the Hilton Garden Inn Cape Canaveral near Cocoa Beach, Cape Canaveral Florida. Located in the heart of the "Space Coast" it is the home of the Kennedy Space Center and NASA and represents some of the greatest achievements of mankind and space exploration. Close by is the Merritt Island National Wildlife Refuge, and the Cape Canaveral Light – the only lighthouse owned by the United States Space Force.

We are grateful for those who support the AMCB during the year including IFAS, the College of Agricultural and Life Sciences, and the University of Florida Office of Research. Thank you to Renee Parks-James who continues to work hard for the AMCB program and students. In addition, the symposium would not be possible without the efforts of Jasmine Corbit, Tracy Cawley and Staci Vining – thank you for all your hard work. A hearty 'thank you' to the Offices of the Dean's and their financial support, particularly Drs Kati Migliaccio, Rob Gilbert and John Davis for making the AMCB symposium possible.

The AMCB is all about intellectual, professional, and personal connections – we encourage all to engage with fellow faculty and students during the breaks, to build new insights and foster collaboration.

John Bromfield, Director
Geoff Dahl, Co-Director

AMCB 2026 DISTINGUISHED LECTURER



Ormond A. MacDougald, PhD



Departments of Molecular & Integrative Physiology, and Internal Medicine, University of Michigan Medical School

Professor Ormond MacDougald is the John A. Faulkner Collegiate Professor of Physiology in the Departments of Molecular & Integrative Physiology, and Internal Medicine, University of Michigan Medical School. A native of Ontario Canada, Dr MacDougald received his BSc in agriculture from the University of Guelph, followed by a MS and PhD from Michigan State University under the guidance of Dr Donald Jump. After completing a Postdoctoral Fellowship at Johns Hopkins University School of Medicine with Dr Daniel Lane, Dr MacDougald joined the faculty at the University of Michigan School of Medicine.

Dr MacDougald's research program focuses on understanding adipose & bone development and has accumulated an impressive

publication record with research being funded by the NIH, American Diabetes Association and numerous other sources. Dr MacDougald's contributions to science have been recognized with numerous awards including the American Physiological Societies Henry Pickering Bowditch Award, a Fulbright Scholar Award and is a Fellow of the American Association for the Advancement of Science. Dr MacDougald has dedicated his career to student mentoring, training numerous undergraduate, graduate and postdoctoral trainees, with his efforts being recognized with the Rackham Distinguished Graduate Mentoring Award from the University of Michigan, and the Bodil M. Schmidt-Nielsen Distinguished Mentor and Scientist Award from the American Physiological Society. In 2025 Dr MacDougald was awarded an honorary Doctor of Science from his alma mater, University of Guelph.

It is a pleasure to host Dr MacDougald as the AMCB 2026 Distinguished Lecturer.

AMCB FACULTY

Fernanda Batistel, Department of Animal Sciences
Mario Binelli, Department of Animal Sciences
Rafael S. Bisinotto, Department of Large Animal Clinical Sciences
John J. Bromfield, Department of Animal Sciences
Mary B. Brown, Department of Infectious Diseases & Immunology
Geoffrey E. Dahl, Department of Animal Sciences
Brad W. Daigneault, Department of Animal Sciences
Aria Eshaghi, Department of Infectious Diseases & Immunology
Antonio Faciola, Department of Animal Sciences
Angela Gonella-Diaza, Department of Animal Sciences
Klibs Galvão, Department of Large Animal Clinical Sciences
Peter J. Hansen, Department of Animal Sciences
Kwang Cheol (KC) Jeong, Department of Animal Sciences
Zongliang (Carl) Jiang, Department of Animal Sciences
Helen Jones, Department of Physiology and Aging
Fernanda M. Rezende, Department of Animal Sciences
José E. P. Santos, Department of Animal Sciences
Tyler A. Square, Department of Microbiology & Cell Science
Haipeng Yu, Department of Animal Sciences
Feng Yue, Department of Animal Sciences

Emeritus Faculty

Lokenga Badinga, Department of Animal Sciences
William C. Buhi, Departments of Animal Sciences
Kenneth C. Drury, Department of Obstetrics & Gynecology
Michael J. Fields, Department of Animal Sciences
Maureen Keller-Wood, Department of Pharmacodynamics
Daniel C. Sharp, Department of Animal Sciences
William W. Thatcher, Department of Animal Sciences
Charles E. Wood, Department of Physiology & Functional Genomics

CURRENT AMCB STUDENTS

Mostafa Fathi Abdelhai Siadahmed (Advisor: Yue)

Fernanda R. Bernarde (Advisor: Jiang)

Teerawin Bouma (Advisor: Faciola)

Camila Jose Cuéllar* (Advisor: Hansen)

Alexa Holtzapple (Advisor: Jones)

Nicholas Kertz (Advisor: Bromfield)

Yufen Li* (Advisor: Yue)

Gabriela Macay* (Advisor: Bromfield)

Tatiane Silva Maia (Advisor: Hansen)

Sriniwas Pandey* (Advisor: Jeong)

Veronica Rubio Santillanes (Advisor: Daigneault)

Zaeem Sarwar (Advisor: Santos)

Muhammad Sohail Siddique (Advisor: Daigneault)

Martha Siregar (Advisor: Dahl)

Chao Song* (Advisor: Bromfield)

Maria Antonia Torres de Bari* (Advisor: Dahl)

Abdul Waheed* (Advisor: Binelli)

Yumei Zhou* (Advisor: Yue)

♦ CALS Deans award recipient

* Matching assistantship recipient

GRADUATES OF THE AMCB, 2025-2026

Ahmad Fraz (Advisor: Nelson)

Global Livestock Research Team Research Scientist, Novonesis

Masroor Sagheer (Advisor: Hansen)

Director Animal Reproduction, DayZee Farms

Firmansyah Tri Saputra (Advisor: Nelson)

Faculty of Animal Science, Universitas Brawijaya

Daniel Stanton (Advisor: Hansen)

Postdoctoral Fellow, University of North Carolina at Charlotte

Arslan Tariq (Advisor: Bromfield)

Lead Scientist, Research Center for Conservation of Indigenous Breeds, Government of Punjab.

HISTORY OF THE AMCB RESEARCH SYMPOSIUM

YEAR	LOCATION	DISTINGUISHED LECTURER
2003	Whitney Laboratory St. Augustine, Florida	Randy Prather University of Missouri
2004	Chinsegut Hill Brooksville, Florida	John Dobrinsky USDA-ARS Beltsville
2005	Chinsegut Hill Brooksville, Florida	Doug Stocco Texas Tech University
2006	Lake Wauburg Gainesville, Florida	Ina Dobrinski University of Pennsylvania
2007	Whitney Laboratory St. Augustine, Florida	Doug Bannerman USDA-ARS, Beltsville
2008	Cedar Cove Beach & Yacht Club Cedar Key, Florida	Eckhard Wolf LMU Munich, Germany
2009	Plantation Golf Resort and Spa Crystal River, Florida	Dean Betts University of Western Ontario
2010	Whitney Laboratory St. Augustine, Florida	Marc-Andre Sirard Laval University
2011	Steinhatchee Landing Resort Steinhatchee, Florida	Kimberly Vonnahme North Dakota State University
2012	Holiday Isle Oceanfront Resort St. Augustine, Florida	Rocio Rivera University of Missouri
2013	Harbor Front Hampton Inn Fernandina Beach, Florida	Martin Sheldon Swansea University
2014	Lakeside Inn Mount Dora, Florida	Cynthia Baldwin University of Massachusetts
2015	Jekyll Island Club Hotel Jekyll Island, Georgia	Pat Lonergan & Trudee Fair University College Dublin
2016	Chinsegut Hill Retreat Brooksville, Florida	Shawn Donkin Purdue University
2017	Safety Harbor Resort and Spa Safety Harbor, Florida	Kieran Meade Teagasc
2018	Plantation on Crystal River Crystal River Florida	Christopher Geyer East Carolina University
2019	International Palms Resort & Conf. Center Cocoa Beach, Florida	Brian O'Neill University of Iowa
2021	Austin Cary Forest Gainesville, Florida	Liang Zhou University of Florida
2022	Hampton Inn & Suites, Fernandina Beach Amelia Island, Florida	Fuller Bazer Texas A&M
2023	Sheraton Lake Buena Vista Resort Orlando, Florida	Pascale Chavatte-Palmer INRAE
2024	St Petersburg Marriott Clearwater, Florida	Pablo Ross STgenetics
2025	Panama City Beach Resort, Panama City Beach, Florida	Kevin Sinclair University of Nottingham

SCHEDULE OF EVENTS

Thursday May 14, 2026

12:30 PM John Bromfield, AMCB Director
Welcome and introduction

MERCURY Chairs: Yumei Zhou & Martha Siregar
12:45 PM Zaeem Sarwar, Dept of Animal Sciences (*Santos*)
“Effect of Source of Trace Minerals on Uterine
Metabolome in Dairy Cows”

1:00 PM Gabriela Macay, Dept of Animal Sciences
(*Bromfield*)
“Seminal Plasma Alters Expression of Bovine
Oviductal Cytokines”

1:15 PM Abigail Sproull, Dept of Animal Sciences (*Hansen*)
“The Role of Choline in Modulating Protein
Synthesis During Bovine Preimplantation Embryo
Development”

1:30 PM Abdul Waheed, Dept of Animal Sciences (*Binelli*)
“Early Diestrus Uterine Features Underpinning the
Sustainability of Pregnancies in Beef Cattle”

1:45 PM Fernanda Rodrigues Bernarde, Dept of Animal
Sciences (*Jiang*)
“The Roles of Histone Variants During Bovine
Embryogenesis”

2:00 PM *Break*

GEMINI

2:30 PM

Chairs: Alexa Holtzapple & Srinivas Pandey

Nicholas Kertz, Dept of Animal Sciences

(*Bromfield*)

“Endometrial Responses to *Trueperella pyogenes* and Heat Stress in Dairy Cows”

2:45 PM

Tatiane Maia, Dept of Animal Sciences (*Hansen*)

“Influence of pH Control During In Vitro Maturation on Bovine Blastocyst Development”

3:00 PM

Sophia Obeso, Dept of Animal Sciences (*Hansen*)

“Establishing a Sodium Alginate–Based Culture Environment Mimicking the Bovine Oviduct for Enhanced In-Vitro Embryo Competence”

3:15 PM

Maria Bari, Dept of Animal Sciences (*Dahl*)

“Impact of Dry Period Heat Stress and Rumen-Protected Choline on Mammary Cell Proliferation in Holstein Cows”

3:30 PM

Teerawin Bouma, Dept of Animal Sciences

(*Faciola*)

“Evaluation of Yeast Supplementation on Ruminal Fermentation and Microbial Activity Under High-Starch Conditions Using a Dual-Flow Continuous Culture System”

3:45 PM

Break

2026 AMCB Distinguished Lecture

4:00 PM Ormond MacDougald, University of Michigan Medical School.

“Insights From an Adipocyte Physiologist: Bone Marrow, Adipose Tissue, Lipodystrophy, and More!”

5:00 PM *Happy hour and group photo*

6:00 PM *Dinner*



Friday May 15, 2026

7:00 AM *Breakfast (served until 9:00 AM)*

APOLLO

9:00 AM

Chairs: Fernanda Bernarde & Abdul Waheed
Veronica Rubio, Dept of Animal Sciences
(*Daigneault*)

“Developmental and Transcriptomic Roles of
PPARG in Bovine Embryo Development”

9:15 AM

Martha Ulina Siregar, Dept of Animal Sciences
(*Dahl*)

“Mammary Gene Expression and Pathway
Changes Associated with Prepartum 25
Hydroxyvitamin D3 (caldiol) Compared with
Vitamin D3 (cholecalciferol) Supplementation in
Dairy Cows”

9:30 AM

Yumei Zhou, Dept of Animal Sciences (*Yue*)

“Loss of Hepatocyte DPF2 Disrupts Lipid
Homeostasis and Exacerbates Malnutrition-
Induced MASH”

9:45 AM

Camila Cuéllar, Dept of Animal Sciences (*Hansen*)

“Genetic Differences in Thermoregulatory Ability
Between Sheep Reared in a Hot, Humid
Environment”

10:00 AM

Mostafa Siadahmed, Dept of Animal Sciences
(*Yue*)

“Exosome-Mediated Interorgan Crosstalk Between
Tissues in Physiological and Pathological States”

10:15 AM

Break

ARTEMIS

- 10:45 AM Chairs: Teerawin Bouma & Maria Bari
Muhammad Sohail Siddique, Dept of Animal
Sciences (*Daigneault*)
“Mechanisms to Methylome – New Insights
Revealing the Susceptibility of Mature Sperm to
Tetrahydrocannabinol Exposure”
- 11:00 AM Alexa Holtzapple, Dept of Physiology and Aging
(*Jones*)
“Sexually Dysmorphic Responses to Fetal Growth
Restriction and Intervention”
- 11:15 AM Sriniwas Pandey, Dept of Animal Sciences
(*Jeong*)
“Methane Emissions and Feed Efficiency in
Ruminants: Insights from Shotgun Metagenomic
Studies”
- 11:30 AM Yufen Li, Dept of Animal Sciences (*Yue*)
“B Cell Translocation Gene 1 (BTG1) Controls
Muscle Stem Cell Maintenance and Skeletal
Muscle Regeneration”
- 11:45 AM John Bromfield, AMCB Director
Closing remarks

