

SNACK AND FACT

Developmental Programming: What Mom Eats Matters!

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Hosted by the American Society of Animal Science



Photo: iStock/vadimguzhva

The July 2017 issue of *Animal Frontiers* focuses on fetal programming and the long-lasting effects of maternal nutrition during pregnancy on offspring growth and health.

In livestock, maternal nutrition during gestation affects fetal growth and development. It also impacts the offspring after birth, affecting long-term growth and health, production efficiency, carcass quality and composition, and reproductive success of female offspring.

Animal scientists study the result of poor maternal nutrition (too little or too many nutrients during gestation) to gain a better understanding of its impact on the offspring. These research findings hold meaningful implications for livestock farmers. They also have significant broader societal impacts, since livestock species serve as important models for human health.

Application of research focusing on livestock maternal nutrition can be of value to human health researchers studying issues such as obesity, bone health, metabolic diseases, joint health, and stem cell development.



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Photo provided by Sue A. McCoard

Additional basic and applied livestock research is needed to advance our knowledge of maternal nutrition and its far-reaching implications on both animal and human health and well-being.

Read the July 2017 issue of *Animal Frontiers* at:
<https://www.animalsciencepublications.org/publications/af/tocs/7/3>

12:00 – 12:05 PM

Introduction and Goals

Dr. Teresa Davis

Baylor College of Medicine &
ASAS Public Policy Committee

12:05 – 12:25 PM

What is Developmental Programming and Why Does it Matter?

Dr. Kristen Govoni

University of Connecticut

12:25 – 12:45 PM

Developmental Programming: Concepts, Mechanisms, and Impacts

Dr. Joel Caton

North Dakota State University

12:45 – 1:00 PM

Discussion & Questions



Photo: Animal Science Image Gallery, Amy Radunz



KRISTEN GOVONI is an associate professor in the Department of Animal Science at the University of Connecticut. Dr. Govoni earned her B.S., M.S., and Ph.D. in Animal Science from the University of Connecticut. She spent five years as a postdoctoral researcher in the Musculoskeletal Disease Center of the Jerry L. Pettis VA Medical Center. Dr. Govoni joined the faculty at the University of Connecticut in 2008. Her research focuses on understanding growth and development at the cellular level to identify methods to improve animal health and efficiency of production.

Correspondence: kristen.govoni@uconn.edu



JOEL CATON is a professor of animal sciences at North Dakota State University. He earned his B.S. from New Mexico State University, M.S. from the University of Missouri, and Ph.D. from New Mexico State University, followed by postdoctoral research at the University of Missouri. Dr. Caton currently serves as the Associate Editor-in-Chief of the *Journal of Animal Science*, and on the American Society of Animal Science Board of Directors. Dr. Caton's research focuses on how nutrition alters metabolic and developmental outcomes.

Correspondence: joel.caton@ndsu.edu

ASAS Mission

The American Society of Animal Science fosters the discovery, sharing and application of scientific knowledge concerning the care and responsible use of animals to enhance animal and human health and well-being.

