

# Mohammad Al-Qaisi, Ph.D.

Department of Animal Production  
School of Agriculture  
The University of Jordan  
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## Education

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### **Ph.D. in Animal Science**

January 2015- June 2019

Iowa State University, Ames, IA, USA

Dissertation title: “Developing and validating a heat stress model and evaluating nutritional management strategies to mitigate heat stress and immune-challenges in dairy cows”

Advisor: Dr. Lance Baumgard; Co-advisor: Dr. Leo Timms

### **M.S. in Animal Production**

February 2010- May 2013

The University of Jordan, Amman, Jordan

Thesis title: “Effect of rumen-protected methionine on production and composition of early lactating Shami goats’ milk and growth performance of their kids”

Advisor: Dr. Hosam Titi

### **B.S. in Animal Production**

February 2005 – January 2009

The University of Jordan, Amman, Jordan

- Recipient a scholarship from the ministry of higher education in 2007, Amman, Jordan
- Recipient a scholarship from the ministry of higher education in 2008, Amman, Jordan
- **Ranked the 1<sup>st</sup>**

## PROFESSIONAL EXPERIENCE

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### **Assistant Professor**

Department of Animal Production

School of Agriculture

The University of Jordan

Amman, Jordan

January 2020- Present

### **Full-time Lecturer**

Department of Animal Production

School of Agriculture

The University of Jordan

Amman, Jordan

July 2019- December 2019

### **Graduate Research Assistant**

Department of Animal Science

Iowa State University

Ames, Iowa, USA

January 2015- June 2019

## **Research and Teaching Assistant**

Department of Animal Production

Faculty of Agriculture

The University of Jordan

Amman, Jordan

October 2009 – December 2014

Major activities and responsibility:

- Responsible for helping professors teach courses in the department: feed analysis lab, field training in animal production, animal health, and poultry diseases
- Assisting professors in preparing teaching materials
- Proctoring and Grading student exams
- Research assistant activities, e.g. collecting specimen, data, analyzing feed samples
- Manage and coordinate conferences at faculty level
- Attending workshops in the field of animal science

## **Supervisor at poultry farm**

Sinokrot Poultry farms

February 2009 – October 2009

Amman, Jordan

Major activities and responsibility:

- Responsible for health of the flock, feeding, vaccinating, and all management practices on it
- Responsible for workers at the farm by continuing the work and assigning duties that are work related
- Administrative tasks

## **RESEARCH INTERESTS**

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- Livestock Management (Dairy cattle management)
- Studying the effects of stress (including heat stress) on farm animals' productivity, postabsorptive metabolism, and inflammation
- Identifying nutritional management strategies aimed at mitigating the deleterious effects of heat stress and other stressors (i.e., feed restriction, weaning, and transportation) in farm animals

## **HONORS AND AWARDS**

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2019	Global Scholars Award for Graduate Students Retention, Iowa State University, Ames, IA
2019	<b>Young Dairy Scholars Award</b> , American Society of Animal Science /American Dairy Science Association Midwest Section Award, Omaha, NE
2018	Global Scholars Award for Graduate Students Retention, Iowa State University, Ames, IA
2017	Global Scholars Award for Graduate Students Retention, Iowa State University, Ames, IA
2015	Receiving a full-ride scholarship to pursue Ph.D. degree in animal science from the University of Jordan

**TAUGHT COURSES**

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- Principles of Animal Production (Fall and Spring of 2019/2020 and 2020/2021; Fall of 2021/2022)
- Seminar in Animal Production (Spring of 2019/2020; Fall of 2020/2021; Fall of 2021/2022)
- Physiology of Farm Animals (Fall of 2020/2021)
- Practical Training in Animal Production- Dairy Section (Fall of 2021/2022)

**PUBLICATIONS**

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Abdel-Majed, M. A., H. H. Titi, **M. Al-Qaisi**, M. Abuajamieh, M. A. Alnimer, and A. Abdelqader. 2021. Effects of supplementing rumen-protected methionine on performance of primiparous dairy cows during presynch-ovsynch protocol. *Agrociencia Journal*. Accepted.

Mayorga, E. J., S. K. Kvidera, E. A. Horst, **M. Al-Qaisi**, C. S McCarthy, M. A. Abeyta, S. Lei, T. H. Elsasser, S. Khal, T. G. Kiros, and L. H. Baumgard. Effects of dietary live yeast supplementation on growth performance and biomarkers of metabolism and inflammation in heat-stressed and nutrient-restricted pigs. *Trans. Anim. Sci.* 5: 1-13.

Mayorga, E. J., E. A. Horst, **M. Al-Qaisi**, B. M. Goetz, M. A. Abeyta, S. Rodriguez-Jimenez, S. Lei, J. A. Acosta, J. F. Patience, M. R. Serao, and L. H. Baumgard. 2021. Effects of continuously infusing glucose or casein into the terminal ileum on biomarkers of metabolism, inflammation, and intestinal morphology in growing pigs. *J. Anim. Sci.* 99

Mayorga, E. J., E. A. Horst, B. M. Goetz, S. Rodriguez-Jimenez, M. A. Abeyta, **M. Al-Qaisi**, S. Lei, R. P. Rhoads, J. T. Selsby, and L. H. Baumgard. 2021. Rapamycin administration during an acute heat stress challenge in growing pigs. *J. Anim. Sci.* 99

Goetz, B. M., J. Lefler, M. A. Abeyta, E. A. Horst, E. A. Mayorga, **M. Al-Qaisi**, S. Rodriguez-Jimenez, C. Martino, A. Izzo, R. La, H. B. Green, C. E. Moore, M. Embree, and L. H. Baumgard. 2021. Effects of dietary microbial feed supplement on production efficacy in lactating dairy cows. *JDS communications.* 2: 118-122.

Ogenorth, J., M. Abuajamieh, E. A. Horst, S. K. Kvidera, J. S. Johnson, E. A. Mayorga, M. V. Sanz-fernandez, **M. Al-Qaisi**, J. M. Defrain, D. H. Kleinschmit, P. J. Gorden, and L. H. Baumgard. 2021. The effects of zinc amino acid on biomarkers of gut integrity, inflammation, and metabolism in heat-stressed ruminants. *J. Dairy Sci.* 104: 2410-2421.

Horst, E. A. E. J. Mayorga, **M. Al-Qaisi**, S. Rodriguez-Jimenez, B. M. Goetz, M. A. Abeyta, P. J. Gorden, S. K. Kvidera, and L. H. Baumgard. 2020. Evaluating effects of zinc hydroxychloride on biomarkers of inflammation and intestinal integrity during feed restriction. *J. Dairy Sci.* 103: 11911-11929.

Hayajneh, F. M., A. Abdelqader, **M. Al-Qaisi**, and T. M. Al-Antary. 2020. Effects of photoperiod on circadian rhythms of blood parameters of Awassi sheep under field condition. *Fresenius Environmental Bulletin.* 29: 10960-10964.

Irshaid, R., A. Abdelqader, M. Abuajamieh, **M. Al-Qaisi**, F. M. Hayajneh, and T. M. Al-Antary. 2020. Milk production and composition with some blood metabolites response of Holstein dairy cows fed treated barley straw with feed additives as an alternative roughage source. *Fresenius Environmental Bulletin.* 29: 4799-4806.

Horst, E. A., L. M. van den Brink, E. J. Mayorga, **M. Al-Qaisi**, S. Rodriguez-Jimenez, B. M. Goetz, M. A. Abeyta, S. K. Kvidera, L. S. Caixeta, R. P. Rhoads, and L. H. Baumgard. 2020. Evaluating acute inflammation's effects on hepatic triglyceride content in experimentally induced hyperlipidemic dairy cows in late lactation. *J. Dairy Sci.* 103: 9620-9633.

**Al-Qaisi, M.**, E. J. Mayorga, E. A. Horst, M. A. Abeyta, B. M. Goetz, H. A. Ramirez, L. L. Timms, and L. H. Baumgard. 2020. Effects of a *Saccharomyces cerevisiae* fermentation product on heat-stressed dairy cows. *J. Dairy Sci.* 9634-9645.

McCarthy, C. S., B. C. Dooley, E. H. Branstad, A. J. Kramer, E. A. Horst, E. J. Matorga, **M. Al-Qaisi**, M. A. Abeyta, G. Perez-Hernandez, B. M. Goetz, A. R. Castillo, M. R. Knobbe, C. A. Macgregor, J. P. Russi, J. A. D. R. N. Appuhamy, L. H. Baumgard, and H. A. Ramirez-Ramirez. 2020. Energetic metabolism, milk production and inflammation response of transition dairy cows fed rumen-protected glucose. *J. Dairy Sci.* 103:7451-7461.

Horst, E.A., E. J. Mayorga, **M. Al-Qaisi**, M. A. Abeyta, S. L. Portner, C. S. McCarthy, B. M. Goetz, S. K. Kvidera, and L. H. Baumgard. 2020. Effects of maintaining eucalcemia following immunoactivation in lactating Holstein dairy cows. *J. Dairy Sci.* 103: 7472-7486.

Abuajamieh, M., A. Abdelqader, **M. Al-Qaisi**, A. Al-Fataftah, and T. M. Al-Antary. 2020. Effect of bentonite on the performance and gut integrity of lambs under heat stress conditions. *Fresenius Environmental Bulletin.* 29:4799-4806.

**Al-Qaisi, M.**, E. A. Horst, S. K. Kvidera, C. S. McCarthy, E. J. Mayorga, M. A. Abeyta, N. C. Upham, D. M. McKilligan, B. W. Kolstad, L. L. Timms, and L. H. Baumgard. 2020. Effects of dietary electrolytes, osmolytes, and energetic compounds on body temperature indices in heat-stressed lactating cows. *Res. Vet. Sci.* 132:42-48.

**Al-Qaisi, M.**, E. J. Mayorga, E. A. Horst, S. K. Kvidera, C. S. McCarthy, M. A. Abeyta, B. M. Goetz, H. A. Ramirez, L. L. Timms, and L. H. Baumgard. 2020. Validating a heat stress model: The effects of an electric heat blanket and nutritional plane on lactating dairy cows. *J. Dairy Sci.* 103:5550-5560. **(Editor's choice for June 2020)**

**Al-Qaisi, M.**, S. K. Kvidera, E. A. Horst, C. S. McCarthy, E. J. Mayorga, M. A. Abeyta, B. M. Goetz, N. C. Upham, D. M. Mckilligan, H. A. Ramirez, L. L. Timms, and L. H. Baumgard. 2020. Effects of an oral supplement containing calcium and live yeast on circulating calcium and production parameters following intravenous lipopolysaccharide infusion in dairy cows. *Res. Vet. Sci.* 129: 74-81.

Horst, E. A., E. J. Mayorga, **M. Al-Qaisi**, M. A. Abeyta, B. M. Goetz, H. A. Ramirez Ramirez, D. H. Kleinschmit, and L. H. Baumgard. 2019. Effects of dietary zinc source on the metabolic and immunological response to lipopolysaccharide in lactating Holstein dairy cows. *J. Dairy Sci.* 102: 11681-11700.

Horst, E. A., S. K. Kvidera, M. Abuajamieh, E. J. Mayorga, **M. Al-Qaisi**, and L. H. Baumgard. 2019. Short communication: Ketosis, feed restriction, and an endotoxin challenge do not affect circulating serotonin in lactating dairy cows. *J. Dairy Sci.* 102: 11736-11743.

Horst, E. A., S. K. Kvidera, M. J. Dickson, C. S. McCarthy, E. J. Mayorga, **M. Al-Qaisi**, H. A. Ramirez, A. F. Keating, and L. H. Baumgard. 2019. Effects of continuous and increasing lipopolysaccharide infusion on basal and stimulated metabolism in lactating Holstein cows. *J. Dairy Sci.* 102: 3584-3597.

Mayorga, E. J., S. K. Kvidera, J. T. Seibert, E. A. Horst, M. Abuajamieh, **M. Al-Qaisi**, S. Lei, J. W. Ross, C. D. Johnson, B. Kremer, L. Ochoa, R. P. Rhoads, and L. H. Baumgard. 2019. Effects of dietary chromium propionate on growth performance, metabolism, and immune biomarkers in heat-stressed finishing pigs. *J. Anim. Sci.* 97:1185-1197.

**Al-Qaisi, M.**, E. A. Horst, S. K. Kvidera, E. J. Mayorga, L. L. Timms and L. H. Baumgard. 2018. Technical note: Developing a heat stress model in dairy cows using an electric blanket. *J. Dairy Sci.* 102:1-7.

E. J. Mayorga, S. K. Kvidera, E. A. Horst, **M. Al-Qaisi**, M. J. Dickson, J. T. Seibert, S. Lei, A. F. Keating, J. W. Ross, R. P. Rhoads, Z. J. Rambo, M. E. Wilson, and L. H. Baumgard. 2018. Effects of zinc amino acid complex on biomarkers of gut integrity and metabolism during and following heat stress or feed restriction in pigs. *J. Anim. Sci.* 96:4173-4185.

Horst, E. A., S.K. Kvidera, E. J. Mayorga, C. S. Shouse, **M. Al-Qaisi**, M. J. Dickson, J. Ydstie, H. A. Ramirez, K. E. Griswold, and L. H. Baumgard. 2018. Effect of chromium on bioenergetics and leukocyte dynamics following immunoactivation in lactating Holstein cows. *J. Dairy.Sci.* 101:1-16.

**Al-Qaisi, M.A.**, and Titi, H.H. 2014. The effect of Rumen-Protected Methionine on production and composition of early lactating Shami goats' milk and growth performance of their kids. *Archive in Animal Breeding* 57,1,1-11.

#### CONFERENCE PROCEEDINGS

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Horst, E.A., **M. Al-Qaisi**, E.J. Mayorga, B.M. Goetz, S. Rodriguez-Jimenez, S. Carta, S.K. Kvidera and L.H. Baumgard. 2020. Re-evaluating transition cow hypophagia, subclinical hypocalcemia, and hyperketonemia. *Proc. of Southwest Nutrition Conference.* 147-166.

E. A. Horst, **M. Al-Qaisi**, E. J. Mayorga, M. Abeyta, B. M. Goetz, S. Carta, S. K. Kvidera, and L. H. Baumgard. 2019. Inflammation and Calcium Homeostasis: Potential Implications for the Transition Period. *Cornell Nutrition Conference.*

E. A. Horst, E. J. Mayorga, S. Rodriguez-Jimenez, M. A. Abeyta, B. M. Goetz, S. Carta, M. Al-Qaisi, S. K. Kvidera, and L. H. Baumgard. 2019. Causes and Metabolic Consequences of Leaky Gut. *Cornell Nutrition Conference.*

Horst, E.A., E.J. Mayorga, S.K. Kvidera, **M. Al-Qaisi**, M.A. Abeyta, B.M. Goetz, S. Rodriguez, L.M. Van Den brink, and L.H. Baumgard. 2019. Metabolic consequences of leaky gut. 54<sup>th</sup> Proceedings of the Pacific Northwest Animal Nutrition Conference. Pg. 17-31. Boise ID

Mayorga, E.J., E.H. Horst, S.K. Kvidera, **M. Al-Qaisi**, M.A. Abeyta, S. Rodriguez-Jimenez, B.M. Goetz and L.H. Baumgard. 2019. Impact of chronic inflammation on the health of dairy cattle, swine and beef cattle. 54<sup>th</sup> Proceedings of the Pacific Northwest Animal Nutrition Conference. Pg. 121-136. Boise ID

Mayroga, E.J., E.A. Horst, M.A. Abeyta, L.M. Van Den Brink, S.K. Kvidera, **M. Al-Qaisi**, B. Goetz, R.P. Rhoads, and L.H. Baumgard. 2018. Leaky gut and the glucose costs of immune activation. *Proceedings of Biomin's World Nutrition Forum.* Cape Town, South Africa. Pp 195-212.

**Al-Qaisi, M.**, L. H. Baumgard, and L. L. Timms. 2018. Utilizing a novel dairy heat stress model using electric blankets (EHB) to evaluate summer nutritional strategies. *Proc. Four-State Dairy Nutrition and Management Conference.* Dubuque IA Pp. 126-131.

- Mayorga E.J., E.A. Horst, S.K. Kvidera, **M. Al-Qaisi**, C.S. Shouse, H.R. Ramirez, R.P. Rhoads, and L.H. Baumgard. 2018. Feed the Beast – Metabolic Demands of the Immune System. 33rd Annual Southwest Nutrition Conference. Chandler AZ Pp. 27-41.
- Mayorga, E.J., E.A. Horst, S.K. Kvidera, J. Ydstie, **M. Al-Qaisi**, M.J. Dickson, C.S. Chouse, H.R. Ramirez, R.P. Rhoads, A.F. Keating, R. Appuhamy and L.H. Baumgard. 2017. Leaky gut's contribution to inefficient nutrient utilization. Proc. Four-State Dairy Nutrition and Management Conference. Pp. 15-20.
- Kvidera, S.K., E.A. Horst, **M. Al-Qaisi**, M.J. Dickson, R.P. Rhoads, A.F. Keating and L.H. Baumgard. 2017. Nutritional requirement of the immune system of livestock species. Vetagro International Forum. Translating Scientific Discoveries into on-Farm Solutions. Pp 45-61.
- Baumgard, L.H., **M. Al-Qaisi**, and R.P. Rhoads. 2017. Low summer milk fat: Is it the same as diet-induced milk fat depression? Proceedings of the 32nd Annual Southwest Nutrition Conference. Tempe AZ Pp. 144-151
- Kvidera, S.K., E.A. Horst, **M. Al-Qaisi**, M.J. Dickson, R.P. Rhoads, A.F. Keating, and L.H. Baumgard. 2017. Leaky gut's contribution to inefficient nutrient utilization. Proc. Pacific Northwest Animal Nutrition Conference. Richland, WA. pp. 28-34.
- Kvidera, S.K., E.A. Horst, **M. Al-Qaisi**, M.J. Dickson, R.P. Rhoads and L.H. Baumgard. 2016. Leaky Gut's Contribution to Inefficient Nutrient Utilization. Proc. Arkansas Nutr. Conf. The Poultry Federation
- Kvidera, S.K., E.A. Horst, **M. Al-Qaisi**, M.J. Dickson, R.P. Rhoads and L.H. Baumgard. 2016. Leaky Gut's Contribution to Inefficient Nutrient Utilization. Proc. Four-State Dairy Nutrition and Management Conference. Pp. 20-26.
- Kvidera, S.K., E.A. Horst, **M. Al-Qaisi**, M.J. Dickson, and L.H. Baumgard. 2016. Review of Nutrient Partitioning. Proc. Four-State Dairy Nutrition and Management Conference. Pp. 34-38.
- Kvidera, S.K., M. Abuajamieh, E.A. Horst, **M. Al-Qaisi**, M.J. Dickson, R.P. Rhoads, A.F. Keating and L.H. Baumgard. 2016. Leaky gut's contribution to heat stress and poor transition into lactation. Proc. California Anim. Nutr. Conf. pp. 106-128.
- Abuajamieh, M., S.K. Kvidera, E.A. Horst, **M. Al-Qaisi**, M.J. Dickson, R.P. Rhoads, A.F. Keating and L.H. Baumgard. 2016. Leaky gut's contribution to heat stress and maladaptation to lactation. 31st Annual Southwest Nutrition Conference. Tempe AZ Pp. 69-80.

## ABSTRACTS

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- M. Al-Qaisi**, M. Abuajamieh, M. A. Abdel-Majed, M. A. Alnimer, R. Irshaid, A. Abdelqader, H. H. Titi, A. A. Al-Fataftah, and L. H. Baumgard. 2021. Effects of dietary betaine on body temperature indices, performance, and metabolism of dairy heifer calves during summer hot conditions. *J. Dairy Sci.* 104 (Suppl. 1): 271.
- Mayorga, E. J., E. A. Horst, B. M. Goetz, S. Rodríguez-Jiménez, M. A. Abeyta, **M. Al-Qaisi**, S. Lei, R. P. Rhoads, J. T. Selsby, and L. H. Baumgard. 2020. Effects of rapamycin during an acute heat stress exposure in growing pigs. *J. Anim. Sci.* 98 (Suppl. 3):117.
- Mayorga, E. J., E. A. Horst, B. M. Goetz, S. Rodríguez-Jiménez, M. A. Abeyta, **M. Al-Qaisi**, S. Lei, R. P. Rhoads, J. T. Selsby, and L. H. Baumgard. 2020. Effects of mitoquinol during acute heat stress exposure in growing pigs. *J. Anim. Sci.* 98 (Suppl. 3):118.
- M. A. Abeyta, **M. Al-Qaisi**, E. A Horst, E. J. Mayorga, S. J. Rodriguez-Jimenz, B. M. Goetz, S. Carta, H. Tucker, and L. H. Baumgard. 2020. Effects of antioxidants supplementation on metabolism and inflammation biomarkers in heat-stressed dairy cows. *J. Dairy Sci.* 103 (Suppl. 1): 67.

- E. A. Horst, E. J. Mayorga, **M. Al-Qaisi**, S. Rodriguez-Jimenez, B. M. Goetz, M. A. Abeyta, R. S. Fry, S. K. Kvidera, and L. H. Baumgard. 2019. Effects of zinc hydroxychloride on inflammation and intestinal integrity during feed restriction. In: Symposium on Gut Health in Production of Food Animals. 133.
- E. J. Mayorga, E. A. Horst, **M. Al-Qaisi**, M. A. Abeyta, B. M. Goetz, S. Rodríguez Jiménez, and L. H. Baumgard. 2019. Heat stress, inflammation, and gut integrity in swine. In: XIX Congresso Nacional e I Congresso Internacional ABRAVES. Rev. Acad. Ciênc. Anim. 17 (Supl 1):48-52.
- M. Al-Qaisi**, E. A. Horst, E. J. Mayorga, B. M. Goetz, M. A. Abeyta, C. S. McCarthy, M. R. O'Neil, I. Yoon, H. A. Ramirez-Ramirez, L. L. Timms, and L. H. Baumgard. 2019. Effects of a *Saccharomyces cerevisiae* fermentation product in heat-stressed dairy cows. J. Dairy Sci. (Suppl. 1): 355.
- M. A. Abeyta, E. A. Horst, E. J. Mayorga, B. M. Goetz, **M. Al-Qaisi**, C. S. McCarthy, M. R. O'Neil, B. C. Dooley, P. Piantoni, G. F. Schroeder, H. A. Ramirez-Ramirez, and L. H. Baumgard. 2019. Effects of hindgut acidosis on metabolism, inflammation and production in dairy cows consuming a standard lactation diet. J. Dairy Sci. (Suppl. 1): 270.
- M. A. Abeyta, E. A. Horst, S. J. Rodriguez-Jimenez, E. J. Mayorga, B. M. Goetz, **M. Al-Qaisi**, P. Piantoni, G. F. Schroeder, H. A. Ramirez-Ramirez, and L. H. Baumgard. 2019. Effects of hindgut acidosis on metabolism, inflammation, and production in dairy cows acclimated to a low-starch diet. (Suppl. 1): 402.
- S. Rodriguez-Jimenez, C. S. McCarthy, E. A. Horst, E. J. Mayorga, **M. Al-Qaisi**, M. A. Abeyta, B. M. Goetz, H. A. Ramirez-Ramirez, and L. H. Baumgard. 2019. Relationships between fecal pH and milk production, metabolism, and acute phase protein response in periparturient dairy cows. J. Dairy Sci. 102 (Suppl. 1): 402
- E. A. Horst, L. M. van den Brink, E. J. Mayorga, **M. Al-Qaisi**, S. Rodriguez-Jimenez, B. M. Goetz, M. A. Abeyta, and L. H. Baumgard. 2019. Effects of intralipid infusion on metabolism and inflammation in immune-challenged lactating cows. J. Dairy Sci. (Suppl. 1): 401.
- E. A. Horst, E. J. Mayorga, **M. Al-Qaisi**, S. Rodriguez-Jimenez, B. M. Goetz, M. A. Abeyta, R. S. Fry, S. K. Kvidera, and L. H. Baumgard. 2019. Effects of zinc hydroxychloride on production and metabolism during 5 d of feed restriction. J. Dairy Sci. (Suppl. 1): 278.
- B. M. Goetz, E. A. Horst, E. J. Mayorga, M. Al-Qaisi, M. A. Abeyta, L. M. van den Brink, S. Rodriguez-Jimenez, C. S. McCarthy, M. Embree, R. La, H. B. Green, C. E. Moore, H. A. Ramirez-Ramirez, and L. H. Baumgard. 2019. Effects of feeding native rumen microorganisms on production efficiency in lactating dairy cows. J. Dairy Sci. (Suppl. 1): 311.
- Al-Qaisi, M.**, E. A. Horst, S. Kvidera, E. J. Mayorga, M. A. Abeyta, B. M. Goetz, L. Timms, and L. H. Baumgard. 2019. **Young Scholar Presentation:** Developing and validating a heat stress model in dairy cows. J. Anim. Sci. 97 (Suppl. 2): 121. [doi.org/10.1093/jas/skz122.214](https://doi.org/10.1093/jas/skz122.214)
- Mayorga, E. J., E. A. Horst, **M. Al-Qaisi**, C. S. McCarthy, B. M. Goetz, M. A. Abeyta, S. Lei, J. A. Acosta, J. F. Patience, and L. H. Baumgard. 2019. Effects of continuously infusing glucose or casein at the terminal ileum on biomarkers of metabolism and intestinal morphology in growing pigs. J. Anim. Sci. 97 (Suppl. 2):111. doi:10.1093/jas/skz122.196
- Mayorga, E., E. Horst, **M. Al-Qaisi**, C. McCarthy, M. Abeyta, B. Goetz, A. Kramer, S. Lei, J. Acosta, J. Patience, and L. Baumgard. 2018. Effects of continuously infusing glucose or casein at the terminal ileum on systemic inflammation. Adv. Anim. Biosci. 9 (Suppl. 2): S111.

**M. Al-Qaisi**, E. J. Mayorga, E. A. Horst, S. K. Kvidera, A. J. Kramer, C. S. McCarthy, M. A. Abeyta, S. L. Portner, B. M. Goetz, H. A. Ramirez-Ramirez, J. A. D. R. N. Appuhamy, L. L. Timms, and L. H. Baumgard. 2018. Validating a “heat stress” model: The effects of an electric heat blanket and nutritional plane on lactating dairy cows. *J. Dairy Sci. (Suppl.2)*: 151.

**M. Al-Qaisi**, E. A. Horst, S. K. Kvidera, A. J. Kramer, C. S. McCarthy, E. J. Mayorga, M. A. Abeyta, N. C. Upham, D. M. McKilligan, H. A. Ramirez-Ramirez, J. A. D. R. N. Appuhamy, L. L. Timms, and L. H. Baumgard. 2018. Effects of re-hydration therapy on body temperature indices in heat-stressed lactating cows. *J. Dairy Sci. (Suppl.2)*: 281.

C. S. McCarthy, B. C. Dooley, E. H. Branstad, A. J. Kramer, E. A. Horst, E. J. Mayorga, **M. Al-Qaisi**, M. A. Abeyta, G. Preze-Hernandez, B. M. Goetz, A. R. Castillo, M. R. Knobbe, C. A. Macgregor, J. P. Russi, J. A. D. R. N. Appuhamy, H. A. Ramirez-Ramirez, L. H. Baumgard. 2018. Lactation performance and energetic metabolism of transition cows fed rumen protected glucose. *J. Dairy Sci. (Suppl. 2)*: 414.

E. A. Horst, **M. Al-Qaisi**, E. J. Mayorga, S. K. Kvidera, M. A. Abeyta, and L. H. Baumgard. 2018. Effects of heat stress and nutritional plan on neutrophil function. *J. Dairy Sci. 101 (Suppl. 2)*: 271.

E. A. Horst, E. J. Mayorga, **M. Al-Qaisi**, M. A. Abeyta, S. L. Portner, C. S. McCarthy, B. M. Goetz, H. A. Ramirez-Ramirez, and L. H. Baumgard. 2018. Effects of maintaining eucalcemia following immunoactivation in lactating cows. *J. Dairy Sci. (Suppl. 2)*:383.

M. E. A. Horst, E. J. Mayorga, S. L. Portner, **M. Al-Qaisi**, C. S. McCarthy, M. A. Abeyta, B. M. Goetz, H. A. Ramirez-Ramirez, D. H. Kleinschmit, and L. H. Baumgard. 2018. Effects of dietary zinc on energetic requirements of an activated immune system following lipopolysaccharide challenge in lactating cows. *J. Dairy Sci. 101 (Suppl. 2)*: 271.

E. A. Horst, E. J. Mayorga, S. L. Portner, **M. Al-Qaisi**, C. S. McCarthy, M. A. Abeyta, B. M. Goetz, H. A. Ramirez-Ramirez, D. H. Kleinschmit, and L. H. Baumgard. 2018. Effects of dietary zinc source on inflammatory biomarkers and PMN function following lipopolysaccharide challenge in lactating cows. *J. Dairy Sci. (Suppl. 2)*: 383.

Mayorga E. J., S. K. Kvidera, E. A. Horst, **M. A. Al-Qaisi**, C. S. Shouse, M. A. Abeyta, S. Lei, J. R. Corley, T. G. Kiros, T. H. Elsasser, S. Kahl, H. A. Ramirez, and L. H. Baumgard. Effects of Live Yeast Supplementation on Growth Performance and Biomarkers of Metabolism and Inflammation in Finishing Pigs during Heat Stress. *J. Anim. Sci. 96 (Suppl. 2)*:400. doi:10.1093/jas/sky073.397

**Al-Qaisi**, J. A. Ydstie, S. K. Kvidera, E. A. Horst, C. S. Shouse, N. C. Upham, D. M. McKilligan and, L. H. Baumgard. 2017. The effects of an oral supplement containing calcium and live yeast on circulating calcium and production following i.v. lipopolysaccharide infusion in dairy cows. (Presented at AABP conference on September 2017)

**M. Al-Qaisi**, E. A. Horst, S. K. Kvidera, E. J. Mayorga, C. S. Shouse, J. A. Ydstie, S. Lei, L. L. Timms, and L. H. Baumgard. 2017. Developing a heat stress model in dairy cows using an electric blanket. *J. Dairy Sci. 100 (Suppl.2)*: 155.

**M. Al-Qaisi**, L. Timms, and L. Baumgard. 2017. Evaluation of an ear tag based behavior and temperature monitor (Cow Manager) during a heat stress induction trial using electric heat blankets (EHB). *J. Dairy Sci. 100 (Suppl.2)*: 155.

E. A. Horst, S. K. Kvidera, E. J. Mayorga, C. S. Shouse, **M. Al-Qaisi**, M. J. Dickson, J. A. Ydstie, H. A. Ramirez, K. E. Griswold, and L. H. Baumgard. 2017. Effects of dietary chromium on circulating energetic metabolites and leukocyte patterns following a lipopolysaccharide challenge in lactating cows. *J. Dairy Sci. 100 (Suppl.2)*: 361.



- E. A. Horst, S. K. Kvidera, E. J. Mayorga, C. S. Shouse, **M. Al-Qaisi**, M. J. Dickson, J. A. Ydstie, H. A. Ramirez, K. E. Griswold, and L. H. Baumgard. 2017. Effects of dietary chromium on energetic requirements of an activated immune system following a lipopolysaccharide challenge in lactating cows. *J. Dairy Sci.* 100 (Suppl.2): 361.
- L. H. Baumgard, S. K. Kvidera, E. A. Horst, M. J. Dickson, E.J. Mayorga, **M. Al-Qaisi**, S. Lei, J. A. Ydstie, C. S. Shouse, K. L. Bidne, J. T. Seibert, A. F. Keating, J. W. Ross, J. T. Selsby, R. P. Rhoads. 2017. Consequences of leaky gut on the immune system, metabolism, physiology and animal performance. *J. Dairy Sci.* 100 (Suppl.2): 425.
- S. K. Kvidera, M. J. Dickson, E. A. Horst, J. A. Ydstie, C. S. Shouse, K. L. Bidne, E. J. Mayorga, **M. Al-Qaisi**, H. A. Ramirez Ramirez, A. F. Keating, and L. H. Baumgard. 2017. Effects of continuous and increasing lipopolysaccharide infusion on basal metabolism in lactating cows. *J. Dairy Sci.* 100(Suppl.2): 153.
- S. K. Kvidera, M. J. Dickson, E. A. Horst, J. A. Ydstie, C. S. Shouse, K. L. Bidne, E. J. Mayorga, **M. Al-Qaisi**, H. A. Ramirez Ramirez, A. F. Keating, and L. H. Baumgard. 2017. Metabolic responses to a glucose tolerance test and epinephrine challenge during continuous lipopolysaccharide infusion in lactating cows. *J. Dairy Sci.* 100 (Suppl.2): 79.
- M. J. Dickson, S. K. Kvidera, E. A. Horst, J. A. Ydstie, C. S. Shouse, E. J. Mayorga, **M. Al-Qaisi**, K. L. Bidne, H. A. Ramirez, A. F. Keating, and L. H. Baumgard. 2017. Chronic lipopolysaccharide infusion reduces productivity in lactating dairy cows. *J. Dairy Sci.* 100 (Suppl.2): 77.
- E. A. Horst, M. J. Dickson, S. K. Kvidera, J. A. Ydstie, C. S. Shouse, E. J. Mayorga, **M. Al-Qaisi**, K. L. Bidne, H. A. Ramirez, A. F. Keating, and L. H. Baumgard. 2017. Effects of chronic lipopolysaccharide infusion on immune cell dynamics and the acute phase response in lactating cows. *J. Dairy Sci.* 100(Suppl. 2): 75.
- E. J. Mayorga, S. K. Kvidera, E. A. Horst, **M. A. Al-Qaisi**, M. J. Dickson, J. T. Seibert, S. Lei, Z. J. Rambo, M. E. Wilson, and L. H. Baumgard. 2017. Effects of zinc amino acid complex on biomarkers of gut integrity and metabolism during heat stress and a following recovery period in growing pigs. *J. Anim. Sci.* 95(E-Suppl. 5):325
- Kvidera, S. K., E. A. Horst, E. J. Mayorga, J. T. Seibert, **M. Al-Qaisi**, J. W. Ross, R. P. Rhoads, and L. H. Baumgard. 2017. Effects of supplemental citrulline on intestinal neutrophil infiltration during heat stress and nutrient restriction in growing pigs. *J. Anim. Sci.* 95(E-Suppl. 5):323.
- Kvidera, S.K., E.A. Horst, E.J. Laughlin, E.J. Mayorga, J.T. Seibert, M. Abuajamieh, **M. Al-Qaisi**, S. Lei, A.F. Keating, J.W. Ross, and L.H. Baumgard. 2016. Effects of Repeated Lipopolysaccharide Infusion on Hematologic, Metabolic, and Intestinal Histology Parameters. *FASEB J.* 30:925.14.
- M. Abuajamieh, S.K. Kvidera, E.A. Horst, E.J. Mayorga, J.T. Seibert, J.S. Johnson, J.W. Ross, **M.A. Al-Qaisi**, P.J. Gorden, J. DeFrain, R.P. Rhoads, and L.H. Baumgard. 2016. The effects of zinc amino acid complex on biomarkers of gut integrity and metabolism in heat-stressed steers. *J. Dairy Sci.* 99(E-Suppl. 1):1175.
- E.A. Horst, S.K. Kvidera, M. Abuajamieh, E.J. Mayorga, **M.A. Al-Qaisi**, H.B. Green, K.M. Schoenberg, W.E. Trout, and L.H. Baumgard. 2016. The effects of ketosis, feed restriction, and an endotoxin challenge on circulating serotonin (5-HT) in lactating dairy cows. *J. Dairy Sci.* 99(E-Suppl. 1):1103.
- S.K. Kvidera, E.A. Horst, E.J. Mayorga, J.T. Seibert, **M.A. Al-Qaisi**, J.W. Ross, R.P. Rhoads, and L.H. Baumgard. 2016. Effect of supplemental citrulline on thermal and production parameters during heat stress in growing pigs. *J. Anim. Sci.* 94(E-Suppl. 5):995.

## RESEARCH GRANTS

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Title	Investigators	Source	Amount (JD)	Year
Effects of dietary betaine supplementation on performance, inflammatory biomarkers, and intestinal integrity during feed restriction in sheep	<b>Mohammad Al-Qaisi</b> Mohannad Abuajamieh Anas Abdelqader Abdur-Rhaman Al-Fataftah Hosam H. Titi Mohamed A. Abedal-Majed	JU Dean of Scientific Research	20000	2020-2021
Effect of organic zinc on the ovine performance, gut integrity and ovarian follicular development in vivo and in vitro	Mohamed A. Abedal-Majed Mohannad Abuajamieh Hosam H. Titi Mufeed Alnimer Anas Abdelqader <b>Mohammad Al-Qaisi</b>	JU Dean of Scientific Research	20000	2019-2020

## Invited Talks

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**Al-Qaisi, M.**, E. A. Horst, S. Kvidera, E. J. Mayorga, M. A. Abeyta, B. M. Goetz, L. Timms, and L. H. Baumgard. 2019. **Young Scholar Presentation:** Developing and validating a heat stress model in dairy cows. *J. Anim. Sci.* 97 (Suppl. 2): 121. [doi.org/10.1093/jas/skz122.214](https://doi.org/10.1093/jas/skz122.214)

**Al-Qaisi, M.**, L. H. Baumgard, and L. L. Timms. 2018. Utilizing a novel dairy heat stress model using electric blankets (EHB) to evaluate summer nutritional strategies. *Proc. Four-State Dairy Nutrition and Management Conference*. Dubuque IA Pp. 126-131.

## Animal Industry reports

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**Al-Qaisi, Mohammad;** Kvidera, Sara; Horst, Erin; Shouse, Carrie; Mayorga, Johana; Upah, Nathan; MacKilligan, Denny; Timms, Leo; and Baumgard, Lance (2018) "Effects of an Oral Supplement Containing Calcium and Live Yeast on Circulating Calcium and Production Parameters Following I.V. Lipopolysaccharide Infusion in Dairy Cows," *Animal Industry Report: AS 664, ASL R3232*.

**Al-Qaisi, Mohammad** and Timms, Leo (2017) "Use of an Ear Tag Based Behavioral and Temperature Monitor (Cow Manager™) During a Heat Stress Induction Trial Using Electric Heat Blankets (EHB): (Preliminary Results)", *Animal Industry Report: AS 663, ASL R3166*.

**Al-Qaisi, M.**, E. Horst, S. Kvidera, J. Mayorga, C. Shouse, S. Lei, L. Timms, and L. Baumgard. 2017. Developing a heat stress model in dairy cows using an electric blanket. *animal industry report: AS 663, ASL R3154*.

## LANGUAGES AND COMPUTER SKILLS

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Arabic (Mother tongue)

English (Excellent)

Good command of Microsoft office tools (Word, Excel, and PowerPoint) and statistics software (SAS)

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## **PERSONAL AFFILIATIONS**

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American Society of Animal Science  
American Dairy Science Association  
Agricultural engineering association in Amman, Jordan

## **CONFERENCES AND WORKSHOPS ATTENDED**

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July 2021

ADSA Annual meeting  
Virtual meeting

June 2020

ADSA Annual meeting  
Virtual Meeting

June 2019

ADSA annual meeting  
Cincinnati, Ohio, USA

March 2019

ASAS and ADSA midwest branch  
Omaha, Nebraska, USA

October 29- November 2, 2018

ADSA Discover conference  
Chicago, Illinois, USA

June 24-27, 2018

ADSA annual meeting  
Knoxville, Tennessee, USA

June 13-14, 2018

Four-State dairy nutrition and management  
Dubuque, Iowa, USA

September 14-16, 2017

AABP annual meeting  
Omaha, Nebraska, USA

June 25-28, 2017

ADSA Annual meeting  
Pittsburgh, Pennsylvania, USA

March 13-15, 2017

ASAS and ADSA midwest branch  
Omaha, Nebraska, USA

JULY 19-23, 2016

Joint annual Meeting (JAM) ADSA  
Salt Lake City, Utah, USA

June 15-16, 2016  
Four-State dairy nutrition and management  
Dubuque, Iowa, USA

September 29- October 03, 2015  
World Dairy Expo  
Madison, Wisconsin, USA

July 12-16, 2015  
Joint Annual meeting (JAM) ADSA-ASAS  
Orlando, Florida, USA

June 24- 25, 2015  
Precision Dairy Conference and Expo  
Rochester, Minnesota, USA

June 10-11, 2015  
Four-State Dairy Nutrition and Management conference  
Dubuque, Iowa, USA

April 16-17, 2015  
Heat Stress Biannual Symposium  
Ames, Iowa, USA

March 16-18, 2015  
ASAS Midwestern section and ADSA Midwest Branch  
Des Moines, Iowa, USA

November 28 – December 5, 2012  
DAAD Workshop on “Sustainability of Project Network – Conservation Agriculture”  
University of Applied Sciences Weihenstephan – Triesdorf  
Freising – Germany

September 1-14, 2012  
DAAD International Summer School on “Conservation Agriculture, Climatic Change, and Agricultural Heritage Systems” is a part of project “Promoting Conservation Agriculture in Arab Region”

- Manage and coordinate the International Summer School

Faculty of Agriculture  
University of Jordan  
Amman – Jordan

November 30 – December 4, 2011  
DAAD Workshop on “Gender barriers towards employment impact”

- Manage and coordinate the workshop

Faculty of Agriculture  
University of Jordan  
Amman – Jordan

September 5-17, 2011

DAAD Summer School in Lebanon on “Establish long term CA trials” is a part of project  
“Promoting Conservation Agriculture in Arab Region”

American University of Beirut

Beirut – Lebanon

July 25-28, 2011

DAAD Workshop on “Establishing long term field trials for Conservation Agriculture”

Manage and coordinate the Workshop

Faculty of Agriculture

University of Jordan

Amman – Jordan

September 20 – October 04, 2010

DAAD International Summer School on “Promoting Conservation Agriculture in Arab Region”

University of Applied Sciences Weihenstephan-Triesdorf

Freising – Germany

February 1-2, 2010

Training course on “Feed formulation for calculating nutritional requirements of animal best mix”

Provimi company

Amman – Jordan