

## ERIN E. CONNOR

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### PROFESSIONAL EXPERIENCE (SINCE 2010)

- 2019-present Professor and Chairman, Department of Animal and Food Sciences, University of Delaware, Newark
- 2009-present Adjunct Professor, Department of Animal and Avian Sciences, University of Maryland, College Park
- 2016-2019 Research Molecular Biologist, USDA-ARS, Animal Genomics and Improvement Laboratory (AGIL), Beltsville, MD
- 2014-2016 Research Leader, Supervisory Research Molecular Biologist, USDA-ARS, AGIL, Beltsville, MD
- Mar-May 2014 Acting Director, Beltsville Agricultural Research Center, Beltsville, MD
- Jan-Mar 2014 Acting Assistant Director, Beltsville Agricultural Research Center, Beltsville, MD
- 2011-2014 Research Leader, Supervisory Research Molecular Biologist, USDA-ARS, BFGL, Beltsville, MD

### EDUCATION

- 1999 Ph.D., Animal Science, University of Maryland, College Park
- 1993 M.S., Wildlife Science, Virginia Polytechnic Institute and State University, Blacksburg
- 1989 B.S., Animal Science, University of Maryland, College Park

### PROFESSIONAL AND HONOR SOCIETIES

- American Dairy Science Association (ADSA)
- American Society of Animal Science (ASAS)
- Sigma Xi (University of Maryland Chapter)
- International Society for Animal Genetics (2002-2018)

### AWARDS, HONORS, AND PATENTS (SINCE 2003)

- 2014 USDA-ARS Extra Effort Award
- 2009 USDA-ARS Administrator's Outreach, Diversity, and Equal Opportunity Award
- 2008 Friends of Agricultural Research-Beltsville, Inc. Travel Grant
- 2008 Outstanding Alumnus Early Career Award, College of Agriculture and Natural Resources Alumni Chapter, University of Maryland
- 2007 Northeast Section ASAS/ADSA Young Scientist Award for Research
- 2003 U.S. Patent #6610496, Prediction of Growth Performance and Composition in Animals, Including Cattle, from Response to Growth Hormone Releasing Hormone

### RESEARCH GRANTS (RECENT EXAMPLES)

- 2019 VandeHaar, M.J., R.J. Tempelman, K.A. Weigel, H.M. White, F. Peñagaricano, C.R. Staples, J.E. Koltes, H.A. Ramirez-Ramirez, **E.E. Connor**, and P.M. Van Raden. Improving dairy feed efficiency, sustainability, and profitability by impacting

- farmer's breeding and culling decisions. Foundation for Food and Agriculture Research Seeding Solutions Grant – \$2M (\$136,611 to Connor)
- 2018 **Connor, E.E.** Improving gut health and function in dairy cattle through development of gut model systems. Pancosma SA Trust Fund Cooperative Agreement – \$50,000
- 2015 Miglior, F., P. Stothard, and 14 Co-applicants including **E.E. Connor**. Increasing feed efficiency and reducing methane emissions through genomics: a new promising goal for the Canadian dairy industry. Genome Canada Large Scale Applied Research Project Competition – \$7.8M (No direct funds to Connor; In-kind travel to annual project meetings and symposia)
- 2014 Bi, J. (**E.E. Connor**, and J.B. Cole – Collaborators). An integrative approach to identifying highly heritable subtypes of complex phenotypes. National Science Foundation, Advanced Biological Informatics Grant – \$561,717 (No funds to Connor)
- 2014 **Connor, E.E.** Evaluation of Sucram and GLP-2 to protect against the negative effects of scours and improve gut function in newborn dairy calves. Pancosma SA Material Transfer Research Agreement – \$40,503

## SERVICES

- 2016-2017 Member, ASAS 5-year Strategic Planning Committee
- 2013-2016 ADSA Production Council (Elected)
- 2013-2016 ADSA Journal Management Committee
- 2008-2013 *Journal of Dairy Science* Editorial Board Member
- 2010-2012 *Journal of Animal Science* Division Editor
- 2007-2011 Member, USDA-ARS, Beltsville Area Animal Care and Use Committee
- 2008-2011 ADSA/ASAS Joint Annual Meeting Growth and Development Symposium Committee (Vice Chairman [2010], Chairman [2011])
- 2008-2010 *Journal of Animal Science* Associate Editor
- 2007-2009 Northeast Section ASAS/ADSA Officer (Secretary/Treasurer [2007], Vice President [2008], President [2009])
- 2008-2009 Member, USDA-ARS Beltsville Area Diversity Taskforce and Communications Sub-Committee

## SELECTED PUBLICATIONS (SINCE 2012)

- Li, B., L. Fang, D.J. Null, J.L. Hutchison, **E.E. Connor**, P.M. VanRaden and J.B. Cole. (In Press). High-density genome-wide association study for residual feed intake in Holstein dairy cattle. *J. Dairy Sci.*
- Connor, E.E.**, J.L. Hutchison, C.P. Van Tassell and J.B. Cole. 2019. Defining the optimal period length and stage of growth or lactation to estimate residual feed intake in dairy cows. *J. Dairy Sci.* 102:6131-6143. doi: 10.3168/jds.2018-15407.
- Zhou, Y., **E.E. Connor**, D.M. Bickhart, C. Li, R.L. Baldwin, S.G. Schroeder, B.D. Rosen, L. Yang, C.P. Van Tassell, and G.E. Liu. 2018. Comparative whole genome DNA methylation profiling of cattle sperm and somatic tissues reveals striking hypomethylated patterns in sperm. *GigaScience* 7(5). doi: 10.1093/gigascience/giy039.
- Zhou, Y., **E.E. Connor**, G.R. Wiggans, Y. Lu, R.J. Tempelman, S.G. Schroeder, H. Chen, and G.E. Liu. 2018. Genome-wide copy number variant analysis reveals variants associated with 10 diverse production traits in Holstein cattle. *BMC Genomics*

19(1):314. doi: 10.1186/s12864-018-4699-5.

- Connor, E.E.**, Y. Zhou, and G. Liu. 2018. The essence of appetite: Does olfactory receptor variation play a role? *J Anim Sci.* 96(4):1551-1558. doi: 10.1093/jas/sky068.
- Connor, E.E.**, E.H. Wall, D.M. Bravo, C.M. Evoke-Clover, T.H. Elsasser, R.L. Baldwin 6th, M. Santín, B.T. Vinyard, S. Kahl, and M.P. Walker. 2017. Reducing gut effects from *Cryptosporidium parvum* infection in dairy calves through prophylactic glucagon-like peptide 2 therapy or feeding of an artificial sweetener. *J. Dairy Sci.* 100:3004-3018.
- Connor, E.E.**, C.M. Evoke-Clover, E.H. Wall, R.L. Baldwin 6th, M. Santin-Duran, T.H. Elsasser, and D.M. Bravo. 2016. Glucagon-like peptide 2 and its beneficial effects on gut function and health in production animals. *Domest. Anim. Endocrinol.* 56:S56-S65.
- Walker, M.P., C.M. Evoke-Clover, T.H. Elsasser, S. Kahl, and **E.E. Connor**. 2015. Short communication: Glucagon-like peptide-2 and coccidiosis alter tight junction gene expression in gastrointestinal tract of dairy calves. *J. Dairy Sci.* 98:3432-3437.
- Connor, E.E.**, C.M. Evoke-Clover, M.P. Walker, T.H. Elsasser, and S. Kahl. 2015. Comparative physiology of glucagon-like peptide-2 – Implications and applications for production and health of ruminants. *J. Anim. Sci.* 93:492-502.
- Connor, E.E.** 2015. Improving feed efficiency in dairy production systems – challenges and possibilities. *Animal* 9:395-408.
- Connor, E.E.**, R.L. Baldwin, VI, M.P. Walker, S.E. Ellis, C. Li, S. Kahl, H. Chung, and R.W. Li. 2014. Transcriptional regulators transforming growth factor- $\beta$ 1 and estrogen-related receptor- $\alpha$  identified as putative mediators of calf rumen epithelial tissue development and function during weaning. *J. Dairy Sci.* 97:4193-4207.
- Connor, E.E.**, J.L. Hutchison, H.D. Norman, K.M. Olson, C.P. Van Tassell, J.M. Leith, and R.L. Baldwin. 2013. Use of residual feed intake in Holsteins during early lactation shows potential to improve feed efficiency through genetic selection. *J. Anim. Sci.* 91:3978-3988.
- Tao, S., **E.E. Connor**, J.W. Bubolz, I.M. Thompson, B. C. do Amaral, M.J. Hayen, and G.E. Dahl. 2013. Short Communication: Effect of heat stress during the dry period on gene expression of mammary tissue and peripheral blood mononuclear cells. *J. Dairy Sci.* 96:378-383.
- Connor, E.E.**, S. Kahl, T.H. Elsasser, R.L. Baldwin, R. Fayer, M. Santin-Duran, G.L. Sample, and C.M. Evoke-Clover. 2013. Glucagon-like peptide 2 therapy reduces negative effects of diarrhea on calf gut. *J. Dairy Sci.* 96:1793-1802.
- Connor, E.E.**, R.L. Baldwin, VI, C. Li, R.W. Li, and H. Chung. 2013. Gene expression in bovine rumen epithelium during weaning identifies molecular regulators of rumen development and growth. *Funct. Integr. Genomics* 13:133-142.
- Hou, Y., D.M. Bickhart, H. Chung, J.L. Hutchison, H.D. Norman, **E.E. Connor**, and G.E. Liu. 2012. Analysis of copy number variations in Holstein cows identify potential mechanisms contributing to differences in residual feed intake. *Funct. Integr. Genomics* 12:717-723. (Corresponding author).
- Connor, E.E.**, J.L. Hutchison, K.M. Olson and H.D. Norman. 2012. Triennial lactation symposium: Opportunities for improving milk production efficiency in dairy cattle. *J. Anim. Sci.* 90:1687-1694.
- Connor, E.E.**, J.L. Hutchison, and H.D. Norman. 2012. Estimating feed efficiency of lactating dairy cattle using residual feed intake (Chapter 11). In *Feed Efficiency in the Beef Industry*. Hill, R.A. (ed.). ISBN: 978-0-470-95952-7; Wiley-Blackwell, NJ.