

## CURRICULUM VITAE

### NAME

Hyungchul Han

### ADDRESS

2-102 Animal and Veterinary Sciences  
Cal Poly Pomona  
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### PHONE

909-869-3232

### EDUCATION

1998	PhD	Oklahoma State University
1992	MS	Korea University
1987	BS	Korea University

### ACADEMIC POSITIONS

(August 2018-current)	<b>Associate Professor</b>	Cal Poly Pomona
(July 2012-August 2018)	<b>Associate Professor</b>	Colorado State University
(July 2006-July 2012)	<b>Assistant Professor</b>	Colorado State University
(September 2005-July 2006)	<b>Research Professor</b>	University of Wyoming
(August 2002- September 2005)	<b>Postdoctoral fellow</b>	University of Wyoming
(Jan 2000- August 2002)	<b>Postdoctoral fellow</b>	University of Nevada-Reno
(June 1999-December 2000)	<b>Research Scientist</b>	Korea Cancer Center Hospital
(July 1998- June 1999)	<b>Postdoctoral fellow</b>	Oklahoma State University
(August 1995-July 1998)	<b>Graduate research assistant</b>	Oklahoma State University

### OTHER POSITIONS

Adjunct Faculty: Animal Reproduction Biotechnology Laboratory, Colorado State University, Fort Collins, CO

### PUBLISHED WORKS

Caldera, E., B Weigel, V. N. Kucharczyk, K. S. Sellins, S. L. Archibeque, J. J. Wagner, H. Han, J W. Spears and T. E. Engle. 2019. Trace mineral source influences ruminal distribution of copper and zinc and their binding strength to ruminal digesta. *J. Anim. Sci.*, 97:1852-1864.

Velasquez-Munoz, A. Manriquez, D. Paudyal, S, Han, H., Callan, R., Ryan, E.P, Pinedo P. 2019. Effect of prebiotic supplementation with stabilized rice bran in milk of pre-weaned organic Holstein calves. *BMC Veterinary Research*. 15:53.

Velasquez-Munoz, A. Manriquez, D. Paudyal, S, Solano, G., Han, H., Callan, R., Ryan, E.P, Pinedo P. 2019. Effect of a mechanical grooming brush on the behavior and health of recently weaned heifer calves. *BMC Veterinary Research*. 12:284.

S. Hahm, J. Park, K. Park, Y. Son, H. Han. 2016. Extracts of *Opuntia humifusa* fruits inhibit the growth of AGS human gastric adenocarcinoma cells. *Preventive Nutrition and Food Science* 21(1):31-37.

B. Gordon, S. Hahm, J.J. Wagner, J.S. Jennings, T.E. Engle and H. Han. 2016. *Aspergillus oryzae*  $\alpha$ -amylase supplementation on rumen volatile fatty acid profile and relative abundance of mRNA associated with nutrient absorption in ruminal and duodenal tissue from beef steers. *Professional Animal Scientist*. 32:448-454.

C. M. Warner, S. Hahm, S. L. Archibeque, J. J. Wagner, T. E. Engle, I. N. Roman-Muniz, D. Woerner, M. Sponsler and H. Han. 2015. A comparison of supplemental calcium soap of palm fatty acids versus tallow in a corn-based finishing diet for feedlot steer. *Journal of Animal Science and Technology* 57:25

- M.E. Field, R.V. Anthony, T.E. Engle, S.L. Archibeque, D.H. Keisler and H. Han. 2015. Duration of maternal undernutrition differentially alters fetal growth and hormone concentrations. *Domestic Animal Endocrinology*. 1-10.
- K. J. Hornig, S. R. Byers, R. J. Callan, T. Holt, M. Field, H. Han. 2013. Evaluation of a point-of-care glucose and hydroxybutyrate meter operated in various environmental conditions in prepartum and postpartum sheep. *Am. J. Vet. Res.* 74:1059-1065.
- H. Han, H. So, E. Domby and T. Engle. 2012. The relationship of pulmonary artery copper concentrations and genes involved in copper homeostasis in cattle, swine, and goats. *Asian-Aust. J. Anim. Sci.* 25(2):194-199.
- T.R. Hansen, L.K. Henkes, R.L. Ashley, R.C. Bott, A.Q. Antoniazzi, and H. Han. 2010. Endocrine actions of interferon-tau in ruminants. *Society of Reproduction and Fertility*. 67:325-340.
- Han, H., T. E. Engle and S. L. Archibeque. 2009. Characterization and identification of hepatic mRNA related to copper metabolism and homeostasis in cattle. *Biological Trace Element Research* 129:130-136.
- Smirnova, N., A. Ptitsyn, K. J. Austin, H. Bielefeldt-Ohmann, H. Van Campen, H. Han, A. van Olphen, and T. R. Hansen. 2009. Persistent fetal infection with bovine viral diarrhoea virus differentially affects maternal blood cell signal transduction pathways. *Physiological Genomics* 36:129-139.
- Han, H., Hansen, T.R., Berg, B., Hess, B.W. and Ford, S.P. 2008. Maternal undernutrition induces differential cardiac gene expression in pulmonary hypertensive steers at high altitude. *Am J Physiol- Heart and Circulatory Physiology*. 295(7):H382-H389.
- Smirnova, N., Bielefeldt-Ohmann, H., Van Campen, H., Austin, K.J., Han, H., Montgomery, D.L., van Olphen, A.L. and Hansen, T.R. 2008. Acute non-cytopathic bovine viral diarrhoea virus infection induces pronounced type 1 interferon response in pregnant cows and fetuses. *Virus Research* 132; 49-58.
- Ford, S.P., B.W. Hess, M.M. Schwoppe, M.J. Nijland, J.S. Gilbert, K.A. Vonnahme, W.J. Means, H. Han, and P.W. Nathanielsz. 2007. Maternal undernutrition during early gestation in the ewe results in altered growth rate, adiposity and glucose tolerance in male offspring. *J Anim Sci* 85:1285-1294.
- Hansen T.R., Pru J.K., Han H, Rempel L.A. and Austin, K.J. 2007. Failure of Uterine-Conceptus Interactions in Cattle. *J Reprod Develop.* 52, S111-120.
- Han, H., K.J. Austin, L.R. Rempel and T.R. Hansen. 2006. Low blood ISG15 mRNA and progesterone levels are predictive of non-pregnant dairy cows. *J Endocrinol* 191: 505-512.
- Han H., K.J. Austin, S.P. Ford, P.W. Nathanielsz, M.J. Nijland, and T.R. Hansen. 2004. Maternal nutrient restriction programs gene expression in ovine fetal heart. *J Physiol* 558 (1): 111-121.
- Han, H., H.S. Hussein, H.A. Glimp, D.H. Saylor, and L.W. Greene. 2002. Carbohydrate fermentation and nitrogen metabolism of a finishing beef diet by ruminal microbes in continuous cultures as affected by ethoxyquin and (or) supplementation or monensin and tylosin. *J Anim Sci* 80:1117-1123.
- Tanner, J.P., H.S. Hussein, D.H. Hanks, H. Han, and S.L. Lake. 2002. Growth and reproductive performance of heifers as affected by ruminal degradation of supplemental protein. *The Professional Animal Scientist* 18:337-342.
- Han, H., Lee, S.H., and Son, Y.S. 1994. In Situ and In Vitro evaluations of some feed proteins heat-treated by different processing methods. *Korean J Anim Nutr Feed* 18: 491-498.
- Son, Y.S., Yu, B.W., Han, H, Lee, C.J., and Kim, K.S. 1994. A field study on the ruminal pH of lactating cows according to feeding system in Korea. *Korean J Dairy Sci* 16:326-334.

## CONTRACTS & GRANTS

Title: Respiration chambers for animal gas emission. (4/30/2020)  
 Role: PI  
 Amount: \$25,000  
 Agency: SPICE

Title: Improving feed efficiency in beef cattle. 5/24/2019

Role: Co-PI

Amount: \$110,250

Agency: ARI

Title: Determine the effect of annual grass/legume mixtures on performance of weanling calves.

Role: Co-PI

Amount: \$62,780

Agency: ARI

Title: Maternal Obesity during pregnancy programs offspring appetite and insulin secretory pathways in sheep.

Role: PI

Amount: \$15,000

Agency: California Polytechnic University Pomona.

Title: Generation of fistulated cows. (4/30/2019)

Role: PI

Amount: \$10,720

Agency: SPICE

Title: Maternal undernutrition on fetal and postnatal GH/IGF system in sheep (2009)

Role: Primary investigator, oversee and manage the entire project.

Agency: USDA-CSREES

Amount: \$349,360

Title: Supplementation of rumen protected polyunsaturated fatty acids (PUFA) to increase muscle PUFA in corn fed beef steer(2012)

Role: Primary investigator, oversee and manage the entire project.

Agency: Colorado Corn

Amount: \$48,392

Title: Effects of Zeolyte as a dietary additive for ruminant diet. (2016-2017)

Role: Co-PI

Agency: BioGreen Technologies, Inc.

Amount: \$138,749

Title: Enhancement of a National Air Quality Self-Assessment Tool (NAQSAT) for Livestock Producers (2011-2013)

Role:Co-PI

Agency: USDA-NRCS-Natural Resources Conservation Services

Amount: \$369,009

Title: Enhancement of a National Air Quality Self-Assessment Tool (NAQSAT) for Livestock Producers (2010-2012)

Role:Co-PI

Agency: USDA-NRCS-Natural Resources Conservation Services

Amount: \$369,009

Title: ARRA: National Alliance for Advanced Biofuels and Bio-products: CSU Component(2010-2012)

Role:Co-PI

Agency: Donald Danforth Plant Science Center

Amount: \$1,250,237