

CURRICULUM VITAE

University of Idaho

NAME: Pedram Rezamand

DATE: April 20, 2021

RANK / TITLE: Professor, Dairy Nutrition

DEPARTMENT: Animal, Veterinary and Food Sciences

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DATE OF TENURE/PROMOTION: March 2021

EDUCATION BEYOND HIGH SCHOOL:

Ph.D., Animal Science (nutrition), 2006, University of Connecticut, Storrs CT, USA

M.S., Animal Science (nutrition), 1995, Tehran, Iran

B.S., Animal Science, 1991, Tehran, Iran

EXPERIENCE

Teaching, Extension and Research Appointments:

- Professor, Dairy Nutrition, University of Idaho, Animal, Veterinary, and Food Sciences, March 2021-present.
- Associate Professor, Dairy Nutrition, University of Idaho, Animal, Veterinary, and Food Sciences, March 2014-March 2021.
- Assistant Professor, Dairy Nutrition, University of Idaho, Animal & Veterinary Science, October 2008-March 2014.
- Post-doctoral Research Associate, Animal & Veterinary Science, University of Idaho, 2008.
- Post-doctoral Research Associate, Large Animal Clinical Sciences, Michigan State University, 2007.
- Research/Teaching Assistant, Animal Science, University of Connecticut, 2001-2006.
- Faculty member, Animal Science Department, College of Agriculture and Natural Resources, Varamin Azad University, Varamin, Tehran, Iran, 1995-2000.
- Research Assistant (part time), Department of Animal Nutrition, Animal Science Research Institute of Iran, Karaj, Tehran, Iran, 1992-1995.

Academic Administrative Appointments:

- Animal & Veterinary Science Dept. Director of Graduate Studies, January 2015- September 2020
- Department of Animal Science, Technical and Vocational Education Center, Ministry of Agriculture, Tehran, Iran. Responsibilities included curriculum development for short-term professional training programs and certificates for animal science graduates (holding B.S. degree) as well as curriculum development for new two-year associate degree programs in **1)** equine science and **2)** feed technology. 1996- 2000.

Consulting:

Consultant for Racine Olson Nye Budge & Bailey law firm, providing expert opinion in

“Sandy Hills Mink” case, 2012-2014.

TEACHING ACCOMPLISHMENTS

Areas of Specialization:

Ruminant Nutrition, Nutrient Metabolism, Nutritional Physiology, Metabolic Disorders, Experimental Design and Data Analysis

Courses Taught:

Course developed/taught during past ~13 years:

Undergraduate:

- **Feeds and Ration Formulation, AVS 306:** Spring semester (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021).
- **Ruminant Nutrition, AVS 411:** Spring semester (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, and 2021).
- **Science of Animal Husbandry:** (~5-6 guest lectures), AVS 209, Spring 2010, Spring 2011, Spring 2012, Spring 2013, Spring 2014, Spring 2015.
- Special Topics “Immunity and Inflammation”, AVS 504: (Fall 2013, Fall 2014).
- Internship “Dairy Management and Practices”; AVS 398 (Fall 2013).
- Special Topics “Advanced Animal Feeds and Ration Formulation”, AVS 404 (2011).
- Special Topics “Biology of Retinol-binding Protein”, AVS 404 (2010).
- Special Topics “Lipid Metabolism and Inflammation”, AVS 404 (2009).
- Undergraduate Research (2017, 2018, 2019, 2020, 2021)
- Advanced Human Nutrition & Metabolism (Fall 2019, Spring 2021)

Graduate:

- **Ruminant Nutrition AVS 511:** Spring semesters (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021).
- **Practical Methods in Analyzing Animal Science Experiments AVS 531** (offered odd-numbered years): Summer 2010, Summer 2012, Summer 2014, Summer 2016, Fall 2018.
- **Macronutrient Metabolism AVS 517** (offered even-numbered years): summer 2011, summer 2013, summer 2015, Fall 2017, Fall 2019
- **Graduate Seminar**, Spring 2016.

Internship:

AVS 498/598: Internship in Animal Feed Industry (3 credit; 2010-2015).

Students Advised:

Undergraduate Students (total of 194)

2009-none; 2010-three; 2011-ten; 2012-twenty; 2013-Twenty-four; 2014-Thirty-two; 2015-Twenty-four; 2016- Twenty-one; 2017- Fifteen; 2018- Twelve; 2019- Fifteen; 2020-Eighteen, 2021-fifteen

Graduate Students: (total of 9 completed + 2 current)

1. Shannon L. Baze (Bradbury), M.S., Major Professor. “Effects of increased milking frequency on selected measures of mammary gland health, milk yield, and milk composition” Completed May 2010. Current position: Standard Nutrition.

2. Sarah E. Stout (Peterson), M.S., Major Professor. “Effects of dietary betaine on milk yield and milk composition of mid-lactating Holstein dairy cows” Completed December 2010. Current position: Lewiston Veterinary Clinic, Lewiston, ID.
3. Jason S. Watts, M.S., Major Professor. “Effects of dietary *trans*-fat, as compared with saturated fat, on selected measures of mammary gland health, milk yield and milk composition of early lactation Holstein dairy cows” Completed December 2011. Current position: Research Associate, Environmental Science Dept., Washington State University.
4. Cynthia M. Scholte, M.S., Major Professor. “Effect of elevated lipid mobilization on fatty acid composition of blood and immune cells in dairy cows”. Completed December 2014. Current position: Fellow Scientist, Food & Drug Administration.
5. Jeffrey Chilson, M.S., Major Professor. Research area: Chemical and enzymatic treatments of low-quality forages. Completed November 2015. Current position: Extension Educator, Montana State University.
6. Chia-Yu Tsai, MS., Major Professor. Research area: lipid metabolism and inflammation in Holstein calves. Completed May 2016. Present position: Ph.D. candidate, University of Idaho.
7. Kirk C. Ramsey (DVM), M.S., Major Professor. Research area: Retinol binding protein and inflammation in periparturient dairy cows. Completed May 2016. Present position: private Veterinary Practice, Twin Falls ID.
8. Hao-Che Hung (DVM), M. S., Major Professor. Research area: Betaine digestibility and milk composition. Completed August 2018. Current position: Research Associate, University of Idaho.
9. Benjamin Tverdy (DVM), M.S. Major Professor. Research area: Large calf herd health and nutrient metabolism. Completed December 2020. Currently at Feedlot Health Management Services by TELUS Agriculture.

In Progress

Maeghan Steelreath, M.S. student, Major Professor. Research area: Dairy nutrition-direct fed microbial on production and health.

Chia-Yu Tsai, Ph.D. candidate. Major Professor. Research area: lipid metabolism and health in Holstein dairy cows and calves.

Serving on graduate committee: total of 17

Noe A. Gomez (WSU), Ph.D., *In progress-currently on medical leave.*

Cody Ream, MS., *In progress*

Ashly Anderson, MS, *In progress*

Daniel Tsao, MS, *In progress*

Brook Luzzi, MS, *In progress*

Joshua Peters, MS., *Completed* in 2020.

Avani Gorou, M.S., *Completed* in 2019.

Allison Stevens, M.S., *Completed* in 2019.

James Vineyards, M.S. *Completed* 2018.

Brent Hatch. M.S., *Completed* 2014.

Britney Casperson. M.S., *Completed* 2013.

Amy Keehner. M.S., *Completed* 2012.

Sarah Reyes Paredes. M.S., *Completed* 2011.

Cory Rill. M.S., *Completed* 2010.

Joeng Min Choi. M.S., Completed 2010.
Vahid Homayoni. M.S., Completed 1999 (Iran).
S. Jamal Fatemi, M.S., Completed 1998 (Iran).

Mentoring

Visiting scholar/Postdoctoral fellow: total of 5 (+ 1 current)

- Bruna C. Agostinho, DVM, Ph.D., postdoctoral research fellow; Jan 2021-present
- Hsin-Tai Tsia, Ph.D. candidate, visiting scholar (researcher, Taiwan); 2019-2020
- Gamila Bohaliga, DVM, Ph.D., visiting scholar (researcher, Libya); 2019
- Yi-Jin Shao, MS, visiting scholar (researcher, China); 2018
- Yang Chen, Ph.D., visiting scholar (assistant professor, China); 2015-2016
- Farhad Foroudi, Ph.D., visiting scholar (assistant professor, Iran); 2012 -2013

Faculty mentoring committee: total of 6

- Anne. H. Laarman (2016-2019), current position: industrial research chair, Agriculture, Food, and Nutritional Sciences, University of Alberta
- Gwinyai E. Chibisa (2016-2019), current position: assistant professor of ruminant nutrition, Animal, Veterinary, and Food Sciences, University of Idaho)
- Anne Roe (2019-2021) current position: assistant professor of nutrition, Family and Consumer Sciences, University of Idaho
- Amy Skibiell (2019-present), current position: assistant professor of lactation physiology, Animal, Veterinary, and Food Sciences, University of Idaho
- Dennis Konetchy (2019-present), current position: assistant professor of small ruminant health, Animal, Veterinary, and Food Sciences, University of Idaho
- Daniel Fitzsimons (2019-present), current position: assistant professor of physiology, Animal, Veterinary, and Food Sciences, University of Idaho

Undergraduate Research Trainees: total of 80

2009-four students; 2010-six students; 2011-eight students; 2012-eight students; 2013-six students; 2014-five students; 2015- six students; 2016- five students; 2017- seven students; 2018- five students; 2019- six students; 2020- twelve students, 2021- nine students

Workshops, Seminars, Invited Lectures: total of 18

18. **P. Rezamand.** 2019. Calf husbandry/management; Effects of serum total protein concentration on selected health measures (Bonn, Germany).
17. **P. Rezamand.** 2019. Calf/heifer management; Serum lipid-soluble vitamins of newborn calves in relation to the health status of dams during the periparturient period (Bonn, Germany).
16. **P. Rezamand.** 2019. Biology of transition cows; Relationship between nutrient metabolism and health measures in the Pacific Northwest dairy herds (Bonn, Germany).
15. **P. Rezamand.** 2018. Betaine; total tract digestibility, rumen characteristics, effect on productivity and milk composition (Pamplona, Spain).
14. **P. Rezamand.** 2018. Lipid metabolism, health and productivity of high producing dairy cows (Bonn, Germany)

13. **P. Rezamand.** 2018. Oxidative stress, inflammatory response and lipid metabolism in dairy cows (Bonn, Germany).
12. **P. Rezamand.** 2017. Nutrients, health, and productivity: retinoids and retinol-binding protein (Bonn, Germany).
11. **P. Rezamand.** 2017. Lipid metabolism and selected measures of health during the periparturient period (Bonn, Germany)
10. **P. Rezamand.** 2017. Common experimental designs and statistical analyses in animal science; Part I (2- h mini workshop; Bonn, Germany)
9. **P. Rezamand.** 2017. Betaine as a dietary supplement in dairy cattle nutrition; digestibility and performance (Bonn, Germany).
8. **P. Rezamand.** 2017. Common experimental designs and statistical analyses in animal science; Part II (3- h mini workshop; Bonn, Germany).
7. **P. Rezamand.** 2016. Effect of elevated lipomobilization on innate immunity of the mammary glands and metabolism in periparturient dairy cows. NE 1048, multistate hatch projects/Mastitis research workers conference (Chicago, IL).
6. **P. Rezamand.** 2014. Effects of fat on dairy cows' health status. The 49th Pacific Northwest Animal Nutrition Conference (Vancouver, BC, Canada).
5. **P. Rezamand.** 2013. Effect of increased subcutaneous fat stores on fatty acid composition of blood lipid fractions and productive performance in periparturient dairy Holstein cows. The 6th Annual International Symposium on Agriculture (Athens, Greece).
4. **P. Rezamand.** 2012. Hepatic bovine retinol-binding protein and tumor necrosis factor- α . NE 1028, multistate hatch projects/Mastitis research workers conference (Chicago, IL).
3. **P. Rezamand.** 2011. Hepatic bovine retinol-binding protein and inflammation. NE 1028, multistate hatch projects/Mastitis research workers conference (Chicago, IL).
2. **P. Rezamand.** 2010. Retinol-binding protein and inflammation. NE 1028, multistate hatch project/Mastitis research workers conference (Athens, GA).
1. **P. Rezamand.** 2009. Interaction among energy status, retinol-binding protein and intramammary infections in periparturient dairy cows. Invited speaker, the 43rd annual Pacific Northwest Animal Nutrition Conference (Boise, ID).

Teaching/Advising Awards: total of 5 (+1)

- Nominated for the University of Idaho Donald Crawford Graduate Faculty Mentoring Award (2021)
- University of Idaho Students Organization Advisor Award, 2020, first place
- AVS Departmental teaching award, nominated for the R.M. Wade Excellence in Teaching Award, 2018, CALS, University of Idaho.
- AVS Departmental teaching award, nominated for the R.M. Wade Excellence in Teaching Award, 2017, CALS, University of Idaho.
- AVS Departmental teaching award, nominated for the R.M. Wade Excellence in Teaching Award, 2016, CALS, University of Idaho.
- AVS Departmental teaching award, nominated for the R.M. Wade Excellence in Teaching Award, 2014, CALS, University of Idaho.

SCHOLARSHIP ACCOMPLISHMENTS

Publications - Refereed: total of 29

***Corresponding Author: 20**

29. Tsai, C. Y. R. Hassan, H. C. Hung, T. Weber, W. J. Price, **P. Rezamand***, and Q. Huo. 2020. A Rapid Blood Test to Monitor the Immune Status Change of Dairy Cows and to Evaluate their Disease Risk during the Periparturient Period. *Sensors International*.
<https://doi.org/10.1017/S0022029920000941>
28. Tsai, C. Y., F. Rosa, M. Bionaz, and **P. Rezamand***. 2020. Effects of 2,4-thiazolidinedione (TZD) on milk fatty acid profile and serum vitamins in dairy goats challenged with intramammary infusion of *Streptococcus uberis*. DOI:
<https://doi.org/10.1017/S0022029920000941>
27. Dolatkah, B., G. R. Ghorbani, M. Alikhani, F. Hashemzadeh, A. H. Mahdavi, A. Sadeghi-Sefidmazgi, H. Erfani, and **P. Rezamand***. 2020. Effects of hydrolyzed cottonseed protein supplementation on performance, blood metabolites, gastrointestinal development, and intestinal microbial colonization in neonatal calves. *J. Dairy Sci* 103: 5102-5117.
26. Akhlaghi, B., G. R. Ghorbani, M. Alikhani, S. Kargar, A. Sadeghi-Sefidmazgi, H. Rafiee-Yarandi, and **P. Rezamand**. 2019. Effect of production level and source of fat supplement on performance, nutrient digestibility and blood parameters of heat-stressed multiparous Holstein cows. *J Animal Sci Technol* 61:313-323
25. Rafiee-Yarandi, H., M. Alikhani, G.R. Ghorbani, and **P. Rezamand***. 2019. Effects of dietary protein level and corn processing method on feeding behavior in lactating Holstein cows. *J Livestock Science*, 221: 19-27.
24. Hosseini, S. H., H. Mirzaei-Alamouti, M. Vazirigohar, E. Mahjoubi, and **P. Rezamand***. 2019. Effects of milk feeding procedures and straw levels on growth performance, blood metabolites, structural growth and feeding behavior of Holstein dairy calves. *J Animal Feeds Science & Tech*: 255; 114238.
23. Rafiee-Yarandi, H., M. Alikhani, G.R. Ghorbani, M. Heydari, and **P. Rezamand***. 2019. Dietary protein level and corn processing method: Lactation performance, milk fatty acid composition, rumen and blood parameters of lactation dairy cows. *J Livestock Science*, 221:95-104.
22. Tsai, C.Y, **P. Rezamand***, W. Louks, C. M. Scholte and M.E. Doumit. 2017. The Effect of dietary fat on fatty acid composition, gene expression and vitamin status in pre-ruminant calves. *J Animal Feed Science & Technology* 229: 32- 42.
21. Scholte, C.M., **P. Rezamand***, Z. M. Amiri, K.C. Ramsey, C. Tsai, and M.A. McGuire. 2017. The effects of elevated subcutaneous fat stores on fatty acid composition and gene expression of pro-inflammatory markers in periparturient dairy cows. *J Dairy Sci* 100:2104-2118.
20. Chilson, J. M., **P. Rezamand***, M. E. Drewnoski, W. Price, and C. W. Hunt. 2016. Effect of homofermentative lactic acid bacteria and exogenous hydrolytic enzymes on the ensiling characteristics and rumen degradability of alfalfa, corn silages and cool season mixed grass haylage. *Professional Animal Science* 32:598-604.

19. Moeinoddini, H. R., M. Alikhani, F. Ahmadi, G. R. Ghorbani, and **P. Rezamand***. 2016. Partial replacement of triticale for corn grain in starter diet and its effects on performance of Holstein dairy calves. *Animal* 11: 61-67 (doi: 10.1017/S1751731116001233).
18. **Rezamand***, P., B. P. Hatch, K. G. Carnahan, and M. A. McGuire. 2016. Effects of α -linolenic acid-enriched diets on gene expression of key inflammatory mediators in immune and milk cells obtained from Holstein dairy cows. *J. Dairy Res.* 83: 20-27
17. Hossieni, S. M., G. R. Ghorbani, **P. Rezamand***, and M. Khorvash. 2015. Determining optimum age of Holstein dairy calves when adding chopped alfalfa hay to meal starter diets based on measures of growth and performance. *Animal* 10:4, 607-615 (doi:10.1017/S1751731115002499).
16. **Rezamand, P.**, J. Watts, K. M. Yahvah, E. E. Mosley, L. Ma, B. A. Corl, and M. A. McGuire. 2014. Relationship between Stearoyl-CoA Desaturase 1 gene expressions, relative protein abundance, and its fatty acid products in bovine tissues. *J. Dairy Res.* 81: 333-339.
15. Scholte, C. M., **P. Rezamand***, S. L. Shields, and K. C. Ramsey. 2014. Effects of subcutaneous fat stores on serum phospholipids and non-esterified fatty acid lipid fractions in periparturient dairy cows. *J. Agric. Sci & Tech. B.*, 4:352-359.
14. Pezhveh, N., G. R. Ghorbani, **P. Rezamand***, and M. Khorvash. 2014. Effects of different physical forms of wheat grain in corn-based starter on performance of young Holstein dairy calves. *J Dairy Sci.* 97:6382-6390.
13. Foroudi, F., and **P. Rezamand**. 2014. The effects of dietary Valine on performance, serum antibody titer and bone mineralization in broiler chicks. *Iranian J Applied Anim. Sci.* 4:405-409.
12. Watts, J. S., **P. Rezamand***, D. L. Sevier, J. K. Kinch, S. M. Clark, and M. A. McGuire. 2013. Short- term effects of dietary *trans* fatty acids on selected inflammatory mediators in early lactating dairy cows. *J Dairy Sci.* 96:6932-6943.
11. Jarrah, A., G. R. Ghorbani, **P. Rezamand***, and M. Khorvash. 2013. Effects of processing methods of barley grain in starter diets on feed intake and performance of dairy calves. *J. Dairy Sci.* 96:7269-7273.
10. Peterson, S. E., **P. Rezamand***, J. E. Williams, W. Price, M. Chahine, and M. A. McGuire. 2012. Effects of dietary betaine on milk yield and milk composition of mid-lactating dairy cows. *J. Dairy Sci.* 95:6557-6562.
9. **Rezamand***, P., J. S. Watts, K. M. Hunt, B. J. Bradford, L. Mamedova, and S. D. Morey. 2012. Bovine hepatic and adipose retinol binding protein gene expression and its relationship with tumor necrosis factor- α . *J. Dairy Sci.* 95:7097-7104.
8. Shields, S. L., **P. Rezamand***, D. L. Sevier, K. S. Seo, W. Price, and M. A. McGuire. 2011. Effects of increased milking frequency during early postpartum on selected measures of mammary gland health, milk yield, and milk composition. *J. Dairy Res.* 78:301-307.
7. Schramm, R. D., S. L. Shields, **P. Rezamand***, D. L. Sevier, and M. A. McGuire. 2011. Effects of a feed additive on neutrophil expression of immunomodulatory genes, feed intake and production performance in periparturient dairy cows. *J. Anim. Phys. Anim. Nutr.* doi: 10.1111/j.1439-0396.2011.01190x.

6. **Rezamand, P.**, and M. A. McGuire. 2011. Effects of *trans* fatty acids on markers of inflammation in bovine mammary epithelial cells. *J. Dairy Sci.* 94:316-320.
5. Aitken, S. L., E. L. Karcher, **P. Rezamand**, J. C. Gandy, M. J. VandeHaar, A. V. Capuco, and L. M. Sordillo. 2009. Evaluation of antioxidant and pro-inflammatory gene expression in bovine mammary tissue during the periparturient period. *J Dairy Sci.* 92: 589-598.
4. **Rezamand, P.**, T. A. Hoagland, K. M. Moyes, L. K. Silbart, and S. M. Andrew. 2007. Energy status, lipid-soluble vitamins, and acute phase proteins in periparturient Holstein and Jersey dairy cows with or without sub-clinical mastitis. *J Dairy Sci.* 90: 5097-5107.
3. **Rezamand, P.**, S. M. Andrew, and T. A. Hoagland. 2007. The feeding value of extruded corn grain in a corn-silage based ration for high producing Holstein cows during mid-lactation. *J Dairy Sci.* 90: 3475-3481.
2. Chaubal, S. A., L. B. Ferre, J. A. Molina, D. C. Faber, P. E. Bols, **P. Rezamand**, X. Tian, and X. Yang. 2007. Hormonal treatments for increasing the oocyte and embryo production in an OPUIVF system. *Theriogenology* 67:719-728.
1. Aalaradjou, M., T. Annamalai, P. Marek, **P. Rezamand**, D. Schreiber Jr., T. A. Hoagland, and K. Venkitanarayanan. 2006. Antibacterial effect of sodium caprylate on Escherichia coli 0157:H7 in cattle drinking water. *J. Food Protection* 69:2248-2252.

Currently Accepted / Under Review: total of 3+2

***Corresponding Author: 2**

- Stevens, A. V., K. Karges, **P. Rezamand**, A. H. Laarman, and G. E. Chibisa. 20XX. Production performance and nitrogen metabolism in dairy cows fed supplemental blends of RUP and rumen protected-AA in low compared to high protein diets containing corn distillers' grains. *J. Dairy Sci.* **Accepted**.
- Hung, H. C., C. Y. Tsao, G. E. Chibisa, M. Chahine, and **P. Rezamand***. 20XX. Effect of betaine supplementation on total-tract digestibility, milk fatty acid composition, and production performance in Mid-lactating Holstein dairy cows. Submitted (2021) to *J Animal Feed Sci & Tech*.
- Laarman, A. H., J. Watts, and F. Foroudi, and **P. Rezamand***. 20XX. Effects of Dietary Protein and Vitamin A on Retinoids and Retinol Binding Protein in Periparturient Rats. Submitted (2020) to *Int. J. Vitamins and Metabolism*
- Vinyard, J., C. Myers, G. Murdoch, **P. Rezamand**, and G. Chibisa. 20XX. Optimum grape pomace proportion in feedlot cattle diets: Ruminal fermentation, total-tract nutrient digestibility, nitrogen utilization, and blood metabolites. Submitted (2020) to *J. Animal Sci.* **Accepted**
- Mirzaei-Alamouti, H. R., A. Mohammad, M. Vazirigohar, **P. Rezamand**, and M. Mansouryar. 20XX. Effect of protein level and grain source on performance and ruminal fermentation characteristics of primiparous Holstein cows. R1- Submitted (2020) to *J Agricultural Sci.* **Accepted**.

Publications - Peer Reviewed/Evaluated

- Abstracts (conferences): total of 74

(† Principal Investigator): 50

74. Hun, Q. T., C. Y. Tsai, R. Hassan, H. H. Hung, T. Weber, W. J. Price, **P. Rezamand**[†]. 2020. A rapid test to monitor the immune status changes and disease risk of dairy cows during the periparturient period. December 2020. Conference of Research Workers in Animal Disease. 174. (Abstr.).
73. Tverdy, B. J., C.Y. Tsai, H. Hung, and **P. Rezamand**[†]. 2020. Effects of serum protein on health measures, average daily gain, and metabolites in the Holstein dairy calf. December 2020. Conference of Research Workers in Animal Disease. 230. (Abstr.).
72. **Rezamand**[†], P., A. H. Laarman, and D. Konetchy. 2020. Early life stressors affect health of dairy calves. December 2020. Conference of Research Workers in Animal Disease. 350. (Abstr.).
71. Hong, H. T., H. C. Hung, K. R. Kerner, A. L. Peterson, S. Burkhardt, A. H. Laarman, and **P. Rezamand**[†]. 2020. Preference, feeding behavior, and *in vitro* fermentation characteristics of pelleted feeds containing different binders in growing Holstein cows. Submitted to the American Dairy Science Association annual meetings, June 2020. *J. Dairy Sci* 103 (Suppl. 1): 172. (Abstr.).
70. Steelreath, M. R., H. C. Hung, R. L. Hiltz, M. N. Degenshein, A. Aguilar, H. Nielsen, A. H. Laarman, and **P. Rezamand**[†]. 2020. Effect of a commercial active dry yeast (CNCM I-1079) on productive and metabolic measures during the periparturient transition. Submitted to the American Dairy Science Association annual meetings, June 2020. *J. Dairy Sci* 103 (Suppl. 1); 10. (Abstr.).
69. Tsai, C. Y., H. H. Hung, T. Weber, W. J. Price and **P. Rezamand**[†]. 2020. Relationship between nutrient metabolism during the periparturient period and health measures in a Pacific Northwest dairy herd. Submitted to the American Dairy Science Association annual meetings, June 2020. *J. Dairy Sci* 103 (Suppl. 1); 27. (Abstr.).
68. Tverdy, B. J., C.Y. Tsai, W. J. Price, and **P. Rezamand**[†]. 2020. Effects of serum protein concentrations on growth and selected health measures in Holstein dairy calf. Submitted to the American Dairy Science Association annual meetings, June 2020. *J. Dairy Sci* 103 (Suppl.); 102. (Abstr.).
67. Hung H. C. , C. Y. Tsai , J. E. Williams , G. E. Chibisa , W. J. Price , M. A. McGuire , M. Chahine, and **P. Rezamand**[†]. 2020. Effect of betaine supplementation on rumen microbiome of mid-lactating Holstein dairy cows. *J. Dairy Sci* 103 (Suppl. 1); 259. (Abstr.).
66. Anderson, A. A., **P. Rezamand**, A. Ahmadzadeh, and A. L. Skibieli. 2020. Effects of particulate matter on health and production of dairy cattle. *J. Dairy Sci* 103 (Suppl. 1); 283. (Abstr.).
65. Tsai, C. Y., H. C. Hung, T. Weber, **P. Rezamand**[†]. 2020. Relationship between nutrient metabolism during the periparturient period and health measures in a Pacific Northwest dairy herd. In: Proceedings of the 55th Annual Pacific Northwest Animal Nutrition Conference: p. 153.

64. Day, K. L., H. C. Hung, H. T. Hong, C. Y. Tsai, G. E. Chibisa, A. H. Laarman, and **P. Rezamand**[†]. 2020. *In Vitro* Fermentation Characteristics, Feeding Behavior, and Preference of Growing Holstein Dairy Heifers to a Modified Lignin Product. In: Proceedings of the 55th Annual Pacific Northwest Animal Nutrition Conference: p. 145.
63. Steelreath, M. R., H. C. Hung, R. L. Hiltz, M. N. Degenshein, A. Aguilar, H. Nielsen, A. H. Laarman, and **P. Rezamand**[†]. 2020. Impact of a commercial direct-fed microbial on cow performance during the periparturient transition. In: Proceedings of the 55th Annual Pacific Northwest Animal Nutrition Conference: p. 152.
62. Hong, H. T., H. C. Hung, K. R. Kerner, A. L. Peterson, S. Burkhardt, A. H. Laarman, and **P. Rezamand**[†]. 2020. Intake and in Vito Fermentation Characteristics of Pelleted Feeds Containing Different Binders in Growing Primiparous Holstein Cows Diets. In: Proceedings of the 55th Annual Pacific Northwest Animal Nutrition Conference: p. 146.
61. Tverdy, B. J., C.Y. Tsai¹, W. J. Price, and **P. Rezamand**[†]. 2020. Effects of Serum Protein Concentrations on Selected Health Measures within the First 90 Days of Life in Holstein Dairy Calf. In: Proceedings of the 55th Annual Pacific Northwest Animal Nutrition Conference: p. 154.
60. Kelley, T., G. E. Chibisa, **P. Rezamand**, M. Chahine. 2020. *In vitro* rumen fermentation characteristics of high-grade crystalline vs. low-grade liquid betaine products. In: Proceedings of the 55th Annual Pacific Northwest Animal Nutrition Conference: p. 148.
59. Tsai, C. Y., H. H. Hung, W. J. Price, and **P. Rezamand**[†]. 2019. Relationship between serum lipid-soluble vitamins during the periparturient period and health measures in the Pacific Northwest dairy herds. *J. Dairy Sci.* 102(E-Suppl. 1):130. (Abstr.).
58. Tverdy, B. J., C. Y. Tsai, W. J. Price, and **P. Rezamand**[†]. 2019. Effects of serum protein concentrations on selected health measures within the first 90 days of life in Holstein dairy calf. *J. Dairy Sci.* 102(E-Suppl. 1):288. (Abstr.).
57. Hung, H. C., C. Y. Tsai, M. Chahine, and **P. Rezamand**[†]. 2019. Effect of betaine supplementation on total serum fatty acids profile in mid-lactating Holstein dairy cows. *J. Dairy Sci.* 102(E-Suppl. 1):366. (Abstr.).
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- dairy cows. In: Proceedings of the 49th Annual Pacific Northwest Animal Nutrition Conference: p. 5.
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 39. Chilson, J. M., M. E. Drewnoski, and **P. Rezamand**[†]. 2014. Improving ensiling characteristics of lower quality forages using combination homo-fermentative lactic acid-producing bacteria and fibrolytic enzymes. In: Proceedings of the 49th Annual Pacific Northwest Animal Nutrition Conference: p. 8.
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23. Peterson, S. E., J. K. Kinch, J. E. Williams, M. A. McGuire, M. Chahine, and **P. Rezamand**[†]. 2010. Effects of dietary betaine on milk yield and milk composition of mid-lactating dairy cows. In: *Proceedings of the 45th Annual Pacific Northwest Animal Nutrition Conference.* p. 192.
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15. **Rezamand, P.**, B. P. Hatch, K. Parnell, K. M. Hunt, J. E. Williams, W. Price, and M. A. McGuire. 2009. Comparison of in vivo and in vitro mammary cell expression of selected inflammatory genes in response to α -linolenic acid. J. Dairy Sci. Vol. 92 (E-Suppl. 1):199.
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13. Shields, S. L., D. Sevier, J. Peak, K. S. Seo, **P. Rezamand**[†], and M. A. McGuire. 2009. Effects of increased milking frequency on milk yield and selected measures of mammary gland health in lactating cows. J. Dairy Sci. Vol. 92 (E-Suppl. 1):52.
12. Hatch, B.P., K. Boydston, **P. Rezamand**, and M. A. McGuire. 2009. Evaluation of camelina meal as a protein and omega-3 source for lactating dairy cattle. J. Dairy Sci. Vol. 92 (E-Suppl. 1):462.
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10. **Rezamand, P.**, E. Myers, K. M. Hunt, and M. A. McGuire. 2009. Expression of inflammatory genes are altered by *trans* fatty acids in primary aortic endothelial cells. FASEB J. 2009 23:910.15.
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8. **Rezamand, P.**, K. G. Carnahan, J. E. Williams, B. P. Hatch, K. O. Parnell, and M. A. McGuire. 2009. Effects of alpha-linolenic acid-enriched rations on markers of inflammation in dairy cattle. FASEB J. 23:910.17.
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6. **Rezamand, P.**, T. A. Hoagland, R. M. Clark, and S. M. Andrew. 2008. Relationship between indices of energy status and plasma lipids, lipid-soluble vitamins and hepatic-derived export proteins in periparturient Holstein and Jersey cows. J. Dairy Sci. 91 (Suppl. 1):261.
5. **Rezamand, P.**, S. M. Andrew, K. M. Moyes, and R. M. Clark. 2005. Effects of energy status, breed, and plasma metabolites on new intramammary infections in periparturient Holstein and Jersey dairy cows during the transition period. J. Dairy Sci. 88 (Suppl. 1): 99.
4. **Rezamand, P.**, V. Homayoni, S. A. Mirhadee, M. Shivazad. 2000. Investigation on various levels of high and low-fiber sunflower seed meal and enzymatic treatment in broiler nutrition

(Abstr. # P 4.25, In: Proc. 21st World Poultry Congress, Proceedings. Montreal, Canada. Aug. 2000).

3. **Rezamand[†], P.** 2000. Investigation on effects of different levels of bakery byproducts in broiler nutrition (Abst. P 18.30, In: Proc. 21st World Poultry Congress, Proceedings. Montreal, Canada. Aug. 2000).
2. **Rezamand[†], P.**, and M. Irani. 1997. Effects of feeding Caraway pulp in broiler nutrition (in Persian, Abstr. 42, In: Proc. the 2nd National Animal Nutrition Conference; Tehran, Iran. July 1997).
1. **Rezamand[†], P.** 1997. Inclusion of dried citrus pulp in broiler rations (in Persian, Abstr. # 37, In: Proceeding of the 2nd National Animal Nutrition Conference; Tehran, Iran. July 1997).

- Pending/Submitted Abstracts (conferences):

- Proceedings (peer-reviewed): total of 6

6. **Rezamand, P.** 2014. Effect of elevated lipid mobilization on gene expression and fatty acid composition of circulating immune cells, milk, and blood lipid fractions of periparturient dairy cows. In: Proceedings of the 49th Annual Pacific Northwest Animal Nutrition Conference. pp. 1-9.
5. **Rezamand, P.**, M. A. McGuire, and S. M. Andrew. 2009. Interaction among energy status, retinol-binding protein and intra-mammary infections in periparturient dairy cows. In: Proceedings of the 44th Annual Pacific Northwest Animal Nutrition Conference. pp. 71-83.
4. McGuire, M.A., M. Theuer, and **P. Rezamand**. 2008. Putting the transition period into perspective. In: Proceedings of the 23rd Annual Southwest Nutrition & Management Conference. pp. 157-164.
3. **Rezamand, P.** 2000. Energy in horse nutrition (two consecutive papers published in Persian: Horse Magazine, Vol: 10 and 11).
2. **Rezamand, P.**, and M. Shivazad. 1996. Date and date byproducts in animal nutrition (published in Persian: Poultry & Livestock nutrition, 18:79-85).
1. **Rezamand, P.**, M. Salimi- Vahid, S. A. Mirhadee, and M. Shivazad. 1995. Effects of different levels of chemically, heat-treated and untreated date seeds in broiler nutrition (published in Persian: J. of Agricultural Sci. 2: 129-137).

Presentations and Other Creative Activities:

I developed and maintain three webpages:

<http://www.webpages.uidaho.edu/avs306>
[/ http://www.webpages.uidaho.edu/ruminant_nutrition/default.ht](http://www.webpages.uidaho.edu/ruminant_nutrition/default.ht)
http://www.webpages.uidaho.edu/avs_special_topics/

Grants and Contracts Awarded:

Funded (total: approximately \$1,549,000):

- Improving Idaho's Long-Distance Educational and Telemedicine Capabilities. 2021. USDA Rural Development (PI: **P. Rezamand**, coPI: D. Konetchy, M. Chaine, R. Collier, C. McIntosh, D. Habib, ... budget \$467,000)
- Managing gut inflammation during weaning in young calves. 2021. Agriculture Funding Consortium (PI: A. H. Laarman, coPI: **P. Rezamand**, D. Konetchy, budget \$210,000).
- Early Life Stressors Affect Health of Dairy Calves. 2020. USDA-NIFA (PI: **P. Rezamand**, coPI: A. H. Laarman, D. Konetchy, budget \$199, 980).
- Novel Binding Agents in Dairy Cattle Pelleting. 2019. Sustainable Fiber Technologies (PI: **P. Rezamand**, coPI: A. H. Laarman, budget \$44,955).
- Functional importance of microbiota on sensory attributes of whole muscle dry-aged beef. 2019. (PI: P. Bass, coPI: M. Colle, **P. Rezamand**, G. Murdock, J. Williams, M. McGuire: \$42,550).
- Improving Macro-nutrient metabolism course for long distance education. 2018. (\$9,000).
- Impact of "Excell" on Rumen Fermentation and Health (Pacer Technologies Inc., 2017. PI: A. H. Laarman, co-PI, J. B. Hall, G. E. Chibisa, **P. Rezamand**: \$17,044)
- ORED 2017 Equipment Request: Upgrading and expanding calf housing facilities (U Idaho Office of Research and Economic Development, PI: A. H. Laarman, coPI: G. E. Chibisa, **P. Rezamand**; \$ 12,500)
- Effect of betaine on total tract digestibility, rumen fermentation and rumen microbiome of dairy cows. 2017-2019. Submitted to Amalgamated Sugar (PI, M. Chahine, co-PI, **P. Rezamand** & M. McGuire: \$49,579).
- Ruminal Escape and Intestinal Digestibility of Ruminally Protected Amino Acid Supplements and High By-pass Protein Feedstuffs Commonly Used in Dairy Cattle Diets. 2017-2018. Submitted to H. J. Bakers (PI: G. E. Chibisa, co-PI, **P. Rezamand**, A. H. Laarman: \$64,670).
- The effects of combination of lactic acid-producing bacteria and hydrolytic enzyme inoculants on ensiling characteristics of mixed cool season grasses. 2014-2015 (with Lallemand; PI, **P. Rezamand**, co-PI, M. Drewnoski: \$44,500).
- Genomic and physiological assessment to identify changes allowing high-soy use in genetically improved line of rainbow trout: Breaking the 20% soy protein barrier in feeds for marine fish. 2013-2014 (with Soybean Aquaculture Alliance: PI: R. Hardy: co-PI, **P. Rezamand**, \$152,954).
- Improving beef quality by nutritional modification during gestation. 2012-2013 (with the Idaho Beef Council: PI, M. Doumit-, co-PI, **P. Rezamand**; \$35,762).
- Improving beef quality by nutritional modification during gestation. 2011-2012 (with the Idaho Beef Council: PI, M. Doumit, co-PI, **P. Rezamand**: \$47,846).
- Interaction among energy status, retinol-binding protein status and intra-mammary infection in periparturient dairy cows. 2010-2014 (with the IDA and Elanco Animal Health, PI, **P. Rezamand**; co-PI, M. A. McGuire: \$198,803).
- Do alterations in retinoids and retinol-binding protein status affect inflammatory response? 2009. (with the UI seed grants program: **P. Rezamand** (\$12,000).
- An HPLC to enhance analytical opportunities in bovine mastitis, USDA-AFRI. 2009. **P. Rezamand** & McGuire- PI: \$26,000).

Effects of fatty acids from dairy fat and other foods on markers on inflammation and immune system. 2009-2011. United Dairymen of Idaho (PI, M. A. McGuire, co-PI, **P. Rezamand**: \$125,249).

Submitted (pending, total approximately \$467,000):

Weaning strategies; managing gut inflammation during weaning in young calves and the implications throughout life cycle. 2021. To USDA-NIFA (PI: **P. Rezamand**, coPI: A. H. Laarman, D. Konetchy, proposed budget \$649,000)

Wildfire smoke and the dairy industry: discovering impacts on animal performance and health, and the molecular and cellular mechanisms involved. 2021. To USDA-NIFA (PI: A. Skibieli, coPI **P. Rezamand**, D. Konetchy, proposed budget \$650,000)

Unfunded: total of \$14,890,680 as PI: \$5,027,950

- A Low-Cost Binder Supporting Sustainable Animal Agriculture and Aquaculture. 2020. Submitted to Foundation for Agricultural Research (PI: **P. Rezamand**, coPI: A. H. Laarman, M. Powell, proposed budget \$350,000).
- Improving pre-weaning resistance to scours via MOS supplementation. 2019. Submitted to Alberta Agriculture and Forestry (PI: A. H. Laarman, coPI: **P. Rezamand**, D. Konetchy, proposed budget \$120,000).
- Improve dietary recommendations to reduce Phosphorus excretion in dairy cattle. 2019/2020. Submitted to Western SARE (PI: **P. Rezamand**, coPI: A. H. Laarman, M. Chahine, M. E. De Haro Marti, proposed budget \$350,000).
- Improving pre-weaning resistance to scours via MOS supplementation. 2019. Submitted to Land O' Lake Animal Nutrition group (PI: **P. Rezamand**, coPI: A. H. Laarman, D. Konetchy proposed budget \$110,000). *An agreement was reached between the research team and the funding group but once at the contract level, the parties failed to reach an agreement.*
- Identifying SARA-susceptible cows using milk protein biomarkers. 2019. Submitted to USDA-NIFA (PI: S. Greenwood, coPI: **P. Rezamand**, A. H. Laarman, proposed budget \$199,500).
- Dairy Science Experiential Learning: Cultivating a Progressive, Interdisciplinary Hands-on Dairy Education Program for Sustainable Production in the Western US. 2019. Submitted to Keck Foundation. PI: **P. Rezamand**, coPI: A. Ahmadzadeh, K. Wolf, Z. Kayler; proposed budget \$320,000).
- Evaluation of the beef bottom round flat as a viable and profitable alternative to beef brisket flat for use in smoked meat preparation. Submitted to Idaho Beef Council. 2019 (PI: Bass; coPI: M. Colle, G. Murdoch, **P. Rezamand**, J. Nasados, and M. McGuire, proposed budget \$17,500).
- Influence of dry heat cooking method and degree of doneness on beef strip loin amino acid content, fatty acid profile, fat-soluble vitamin content and nutrient composition. 2019. Submitted to Idaho Beef Council (PI: P. Bass, P., coPI: M. Colle, G. Murdoch, **P. Rezamand**, J. Nasados, M. McGuire, proposed budget \$48,985).

- Functional importance of microbiota on sensory attributes of whole-muscle dry-aged beef. (Submitted to NCBA. 2019. PI: P. Bass- coPI; M. Colle, G. Murdoch, **P. Rezamand**, J. Nasados, and M. McGuire, proposed budget \$42,500).
- Effect of timing of beef-containing complementary foods on nutritional status, enteric microbiome, and behavior of infants: a randomized controlled trial. 2019. Submitted to Gerber Foundation (PI: M. Colle, coPI: M. McGuire, **P. Rezamand**, J. Williams, L. Tsao, proposed budget \$349,000).
- Creating a new industry for dairies in the arid American West to replace commercial fertilizer, enhance productivity of crops and cows, and create new job opportunities; nutrient management, productivity, and labor availability. 2018 (McGuire-PI, Chahine, Strickland, Strawn, Brooks, Shewmaker, **Rezamand**, He, Chen, Lee, and Johnson-Maynard Co-PIs; total proposed budget \$9,998,479; **Rezamand's** proposed budget; \$873,832).
- Early life stressors affect health of dairy cows. 2018. Submitted to USDA-NIFA (**Rezamand-PI**; G. E. Chibisa and A. H. Laarman co-PI, proposed budget \$199,854).
- Influence of dry heat cooking method and degree of doneness on beef strip loin amino acid content, fatty acid profile, fat-soluble vitamin content, and nutrient composition, 2018, National cattlemen's Beef Association, P. Bass and M.J. Colle (PIs) G. Murdoch and **P. Rezamand** (Co-PIs); proposed budget \$59,100)
- The nutritive value of lentil as an alternative protein source for ruminants. 2017. USA Dry Peas & Lentils Council (**Rezamand-PI**; Chibisa co-PI: proposed budget \$34,000).
- Effect of Elevated Lipomobilization on Innate Immunity of the Mammary Glands and Metabolism in Periparturient Dairy Cows. 2016. Submitted to USDA-NIFA (**Rezamand PI**; K.M. Moyes, co- PI: \$ 476,054).
- Effect of feeding Camelina meal to beef cattle to enhance texture and flavor of meat (to NBCA. 2017, **Rezamand-PI**, Chibisa and Doumit co-PI, proposed budget \$ 49,900.)
- The nutritive value of lentil as an alternative protein source for ruminants (to USA Dry Pea & Lentil Council, 2016, **Rezamand-PI**, Chibisa co-PI, proposed budget \$ 34,050)
- Effect of feeding Camelina meal to beef cattle to enhance texture and flavor of meat (to NBCA 2015, **Rezamand-PI**, Chibisa and Doumit co-PI, proposed budget \$ 49,962.5)
- Effect of energy status, dietary nutrients, retinoid metabolism, and retinol binding protein status on intra-mammary infection in dairy cows (to USDA/NIFA 2015; **Rezamand-PI**, proposed budget \$499,789).
- Effect of feeding Zeolite on odor control and gas emissions of dairy manure (to I FEEDER 2015; **Rezamand-PI**, proposed budget \$67,504).
- Effect of energy status, dietary nutrients, retinoid metabolism, and retinol binding protein status on intra-mammary infection in dairy cows (to USDA/NIFA 2014; **Rezamand-PI**, proposed budget \$493,071).
- Evaluating a needle-implantable biosensor to decipher metabolic trends during an induced subclinical ketosis (to USDA/NIFA-SBIR 2013; **Rezamand-PI**, proposed budget \$33,593).
- Producing oligosaccharides from biomass to buy down the cost of producing biofuels (to DOESBIR 2013; **Rezamand-coPI**, proposed budget \$99,839.41).
- Retinoid metabolism and retinol binding protein status affect mammary gland health during the periparturient period. 2013 (to USDA/NIFA; **Rezamand-PI**, proposed budget \$363,560).
- Effect of elevated lipid mobilization on fatty acid composition of blood and immune cells in dairy cows. 2013 (to Elanco Animal Health; **Rezamand-PI**, proposed budget \$37,000).

- Linking intra-ruminal dysbiosis, energy status, meta-inflammation and tissue homeostasis to transition cow health. 2013 (collaboration with Univ. Delaware and USDA-ARS to USDA/AFRI; **Rezamand-coPI**, proposed budget \$139,661 for UI portion).
- Effect of elevated lipid mobilization on fatty acid composition of blood and immune cells in dairy cows. 2012 (to Western SARE Competitive Grants: **Rezamand-PI**, proposed budget ~ \$25,000).
- Effects of elevated lipid-mobilization during the transition period on fatty acids composition of immune cells of high producing dairy cows. 2012 (Elanco: **Rezamand-PI**, proposed budget \$37,000).
- Effect of milk, as compared with other animal and plant protein sources, on serum IGF-I levels and occurrence of cancer in rats. 2010 (the United Dairymen of Idaho: **Rezamand-PI**, proposed budget \$83,450).
- Synergistic effect of dietary butyrate and sphingomyelin on occurrence of colorectal cancer. 2010 (the United Dairymen of Idaho: **Rezamand-PI**, proposed budget \$90,000).
- Retinoid metabolism, milk quality, and macular degeneration. 2009 (PI: E. Washington- with the NIH, collaboration with the Columbia University (University of Idaho portion; **Rezamand co-PI**; McGuire-coPIs, proposed budget \$67,000).
- Inflammatory role of *trans* fatty acids in breast cancer. 2009 (with the American cancer society institutional grants program: **Rezamand-PI**, proposed budget \$30,000).
- Immuno-modulator feed additive OmniGen on innate defenses of bovine mammary gland. 2010 (with the Idaho Dairymen Association: **Rezamand-PI**, proposed budget \$27,500).
- Relationships between dietary phosphorus and mammary glands immunity in high producing dairy cows. 2010 (with the Idaho Dairymen Association: **Rezamand-PI**, proposed budget \$63,800).
- Stearoyl CoA desaturase regulation of fatty acid composition of milk and meat. 2009 (to the United Dairymen of Idaho: **Rezamand- coPI**; McGuire-PI, proposed budget \$100,854).
- Inflammatory role of *trans* fatty acids in breast cancer. 2010 (to the American Cancer Society- WSU institutional grants program: **Rezamand-PI**, proposed budget \$30,000).
- Effects of fatty acids from dairy fat and other foods on markers of systemic inflammation and their signaling pathways. 2009 (to the National Dairy Council Nutrition Research: **Rezamand-coPI**; McGuire-PI, proposed budget \$99,880).
- Effect of ω -3-enriched rations as compared with *trans* fatty acid- enriched rations on selected measures of milk quality. 2009 (to the United Dairymen of Idaho: **Rezamand-PI**: proposed budget \$81,001).
- Increased milking frequency on mammary gland health. 2009 (with the Idaho Dairymen Association: **Rezamand-PI** proposed budget \$42,010).
- Stearoyl CoA desaturase in milk fatty acids synthesis. 2008 (to the United Dairymen of Idaho: **Rezamand-coPI**; McGuire-PI, proposed budget \$61,000).
- Effect of feeding zeolite on odor control and gas emissions from dairy manure. 2010 (with the Idaho Dairymen Association: **Rezamand**, Chahine, and Norell-PI, proposed budget \$72,000).
- Immuno-modulator feed additive OmniGen-AF on innate defenses of bovine mammary gland. 2009 (with the Idaho Dairymen Association: **Rezamand-PI**, proposed budget \$43,720).

Gifts (cash \$82,000):

- Modified Lignin product in animal nutrition. 2019 (research gift: \$31,000 from Colombia Pulp: **Rezamand-PI**).
- Direct Microbial Fed; Lallemand 2019-2020 research gift (\$32,000; **Rezamand-PI**.)
- Effects of *trans* fats on bovine mammary gland health during the periparturient period. 2013 (research gift: \$5,000 from Virtus Nutrition: **Rezamand-PI**).
- Effects of *trans* fats on bovine mammary gland health during the periparturient period. 2011 (research gift: \$10,000 from Virtus Nutrition: **Rezamand-PI**).
- Preliminary study of the feed additive “OmniGen-AF” on innate immunity of transition cows. 2009 (research gift: \$4,000 from Prince Agri: **Rezamand-PI**).

Honors and Awards:

- Graduate student Chia-Yu Tsai, 1st place; 2020 Pacific Northwest Animal Nutrition Conference, poster competition, Boise ID, January 2020.
- Graduate student Benjamin Tverdy, 2nd place; 2020 Pacific Northwest Animal Nutrition Conference, poster competition, Boise ID, January 2020.
- Graduate student Chia-Yu Tsai, 1st place; College of Agricultural and Life Sciences Graduate Student Excellence Award, 2017-2018, University of Idaho, Moscow ID, April 2018.
- Graduate student Chia-Yu- Tsai, 2nd place Graduate Poster Competition, Pacific Northwest Animal Nutrition Conference, Boise Idaho, January 2016.
- Graduate student Cynthia M. Scholte, 2nd place; MS Graduate Student Oral Competition, 2015, American Dairy Science Association/American Society of Animal Science joint annual meetings, Orlando, FL, July 2015.
- Graduate student Chia-Yu- Tsai, 2nd place Graduate Poster Competition, Pacific Northwest Animal Nutrition Conference, Vancouver, BC, Canada, October 2014.
- Graduate student Cynthia M. Scholte, 2nd place; Graduate Student Excellence Award, 2013-2014, University of Idaho, Moscow ID, March 2014.
- Graduate student Cynthia M. Scholte, 2nd place Graduate Poster Competition, Pacific Northwest Animal Nutrition Conference, Coeur d’Alene, ID, October 2013.
- Graduate student Jason S. Watts, 1st place Graduate Poster Competition, Pacific Northwest Animal Nutrition Conference, Portland OR, October 2011.
- Graduate student Jason S. Watts, 2nd place MS Graduate Student Oral Competition 2011, American Dairy Science Association/American Society of Animal Science joint annual meetings, New Orleans LA, July 2011.
- Graduate student Sarah E. Peterson, 1st place Graduate Poster Competition, Pacific Northwest Animal Nutrition Conference, Vancouver, BC, Canada, October 2010.
- Graduate student Shannon L. Shields, 1st place Graduate Poster Competition, Pacific Northwest Animal Nutrition Conference, Boise ID, October 2009.
- University of Connecticut, Animal Science Graduate Student Award, 2005-2006.
- Ph.D. Dissertation fellowship, Whetten Graduate Center, University of Connecticut, 2005.
- Developing Countries “Young Scientists Award”, World Poultry Congress, Montreal, Canada, July 2000.

SERVICE

Major Committee Assignments:

- USDA-NIFA, Grant Proposals Review Panel (E-conference, Kansas City, MO, April 2020).
- University of Idaho Sabbatical Leave Committee (2020-present)
- USDA-REEU Grant Proposals, UI Internal Review Panel (Moscow ID, Jan 2020).
- University of Idaho Animal Care & Use Committee (alternate; Jan 2020-present).
- USDA-NIFA, Grant Proposals Panel review (Washington DC., July 2019).
- AVS Director of Graduate Studies (Jan. 2015- Sept. 2020).
- University of Idaho Commencement committee (Fall 2015-Fall 2018).
- AVS Graduate Studies Committee (2011-2014; 2020-present in the new AVFS Dept.).
- UI College of Agricultural & Life Sciences Dairy Committee (Fall 2008-Spring 2016).
- USDA-AFRI Pacific Northwest Cool Season Legumes proposal review panel (2009, 2010).
- American Dairy Science Association “Production Division”: reviewing, planning and chairing scientific sessions (Animal Health Committee; 2009).
- Chaired a symposium entitled “Lipid Metabolism and Inflammation Interactions” at the
- ADSA/ASAS joint annual meetings, New Orleans, July 2011.
- Multistate Hatch project NE1048: past chair (2014-2015)
- Multistate Hatch project NE1048: chair (2013-2014)
- Multistate Hatch project NE1028: Vice-chair (2012-2013)
- Multistate Hatch project NE1028: Secretary (2011-2012)
- Pacific Northwest Animal Nutrition Conference, Chair (Coeur d'Alene ID, 2013), committee member (2010-present)
- Third year, Tenure & Promotion Committees: UI (six applicants, 2013, 2017, 2018, 2020, 2021); UNH & UI (three applicants, 2014, 2015)
- Hiring Committee: AVFS technical staff chair (one 2020), FCS nutrition faculty (one, 2019), AVS interim Dept. head (one, 2015), AVS faculty member, chair (one, 2016 and 2017), PREEC superintendent (one, 2014)
- Faculty mentoring Committee: Dr. Anne H. Laarman (2017-2019); Dr. Gwinyai E. Chibisa (2017-2019); Dr. Ann Roe (2019-present), Dr. Konetchy (2019-present), Dr. Skibieli (2019-present), Dr. Fitzsimons (2019-present).

Professional and Scholarly Organizations

- Pacific Northwest Animal Nutrition Conference: Organizing & Planning Committee, Lead (2013-present)
- ARPAS-Director/Liaison, Pacific Northwest Chapter (December 2019-present)
- ARPAS-Treasurer/Secretary, Pacific Northwest Chapter (Jan 2018-March 2020)
- Editorial board, Journal of Dairy Science (2011- 2017).
- American Dairy Science Association: member (since ~ 2001’).
- American Society for Nutrition: member (since ~2008).
- ARPAS, Pacific Northwest chapter: 2018-present
- *Ad hoc* reviewer for Journal of Dairy Science (2006-present); Journal of Dairy Research (2012-present); Journal of Livestock (2015-present); Animal (2016-present); Journal of Animal Science (2015-present); Journal of Nutrients (2016-present); Journal of Animal Feed Science & Technology (2017-present).

Outreach Service:

- Officially none at UI; however, always answer phone calls and emails related to animal (dairy, beef, sheep, poultry, and horses) nutrition and health.
- Administrative assistant for the Annual New England Dairy conferences (Vernon, CT: 2002-2005).
- Conducted educational programs in dairy nutrition for the Annual Blue Slope Agriculture Fair (Lebanon, CT: 2003-2005).
- Led tours for Farmer Group Study Exchange Team (Chile), March 2005; and UNESCO affiliates (Human Rights Group), July 2005.
- Administrative assistant for the Annual Eastern Connecticut Dairy Meeting (Aug 2005), presenting current dairy research at the University of Connecticut.
- Conducted educational program in dairy nutrition for the Connecticut 4-H dairy clinic (Storrs, CT; 2002 and 2003).

Community Service:

- Head Coach, Moscow High School Soccer program-boys (May 2019-present).
- Advisor, AVS Graduate Students Association (Jan 2019-present).
- Advisor, UI Men's Soccer Club (October 2016-October 2018).
- Advisor, UI Iranian Students Club (October 2011-present).
- President, Moscow United Soccer Club (February 2013-September 2015).
- Vice President, Moscow United Soccer Club (October 2015- January 2017).
- Board of Directors, Moscow United Soccer Club (July 2012-July 2018).
- Licensed Coach, youth soccer.

PROFESSIONAL DEVELOPMENT:**Scholarship:**

- Conference on Research Workers in Animal Disease, December 2020 (E-conference)
- Sabbatical leave fall 2017 (Institute of Animal Science, University of Bonn, Germany).
- Mastitis Research Workers Conference/Multistate Hatch. 2016 (Chicago, IL)
- Grant writing workshop, Washington State University, October 2015
- Mastitis Research Workers Conference/Multistate Hatch. 2015 (Memphis, TN).
- The 6th International Annual Int. Symposium on Agriculture, 2013 (Athens, Greece).
- Mastitis Research Workers Conference/Multistate Hatch. 2012 (Chicago, IL).
- Mastitis Research Workers Conference/Multistate Hatch. 2011 (Chicago, IL).
- Mastitis Research Workers Conference/Multistate Hatch. 2010 (Athens, GA).
- Elanco Science Symposium, 2012 (Chicago, IL).
- Elanco Science Symposium, (2010, 2012; Indianapolis, IN).
- SAS workshop, ADSA/ASAS joint annual meetings, 2008 (Denver, CO).
- American Dairy Science Association joint annual meetings (Summer every year since 2003).
- Pacific Northwest Animal Nutrition Conference (every year since 2009).
- Experimental Biology (April 2009, April 2013, April 2015).

Teaching:

- Teaching: UI-CETL trainings/ multiple group- and one-on-one sessions, Spring/Fall 2019, 2020, 2021
- Teaching & Advising workshop, College of Agriculture & Life Sciences, 2020 (Moscow Idaho).
- Teaching workshop, American Dairy Science Association, 2018 (Knoxville, TN, June 2018).