

# CURRICULUM VITAE

University of Idaho

**NAME:** Michelle (Shelley) McGuire, PhD

**DATE:** 6/1/21

**RANK OR TITLE:** Director and Professor

**DEPARTMENT:** Margaret Ritchie School of Family and Consumer Sciences

**OFFICE LOCATION:** Mary Hall Niccolls Building 105B

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**DATE OF FIRST EMPLOYMENT AT UI:** 8/13/2018

**DATES OF TENURE:** 2004 (Washington State University); 2018 (University of Idaho)

**DATES OF PRESENT RANK OR TITLE:** 2016 (Professor)/2018 (Director)

## EDUCATION

PhD, Cornell University, 1994 (human nutrition; minors in international nutrition & physiology)

MS, University of Illinois, 1988 (nutritional sciences)

BS, University of Illinois, 1986 (*cum laude* & Phi Beta Kappa; general biology)

## EXPERIENCE

### Teaching, Extension, and Research Appointments

2018-present	Professor, Margaret Ritchie School of Family and Consumer Sciences, University of Idaho
2018-present	Affiliate Professor, School of Biological Sciences, Washington State University
2017-2018	Professor, School of Biological Sciences, Washington State University (1.0 FTE)
2016-2017	Professor, School of Biological Sciences, WSU (0.75 FTE)
2014-2018	Affiliate Faculty, Paul G. Allen School of Global Animal Health, WSU
2011-2016	Associate Professor, School of Biological Sciences, WSU (0.75 FTE)
2010-2011	Associate Professor, School of Biological Sciences, WSU (0.6 FTE)
2009-2010	Associate Professor, School of Molecular Biosciences, WSU (0.6 FTE)
2008-2009	Associate Professor, College of Pharmacy, WSU (0.6 FTE)
2004-2008	Associate Professor, Department of Food Science and Human Nutrition, WSU (0.6 FTE)
1998-2003	Assistant Professor, Department of Food Science and Human Nutrition, WSU (0.6 FTE)

### Academic Administrative Appointments

2018-present Director, Margaret Ritchie School of Family and Consumer Sciences, University of Idaho

### Consulting and Advisory

Dannon Maternal and Pediatric Nutrition Advisory Board. 2017-present.

Pacific Northwest National Laboratory Microbiomes in Transition (MINT) External Advisory Board. 2018-2020.

American Society for Nutrition. Consulting activities related to science communications. 2006-2018

Lallimand. Consulting activities related to designing, interpreting, and writing up clinical nutrition research projects related to probiotics and women's health. 2014-2016.

Abbott Nutritionals. Consulting activities related to designing, interpreting, and writing up clinical nutrition research

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projects. 2011-2015.

Provident Clinical Research and Consulting. Consulting activities related to designing, interpreting, and writing up clinical nutrition research projects. 2009-2013.

Kraft Foods. Consulting activities related to providing advice concerning a variety of nutrition-related topics. 2008-2012.

National Institutes of Health, Office of Dietary Supplements. Consulting activities related to nutrition-related lay literature and evidence-based reviews of the efficacy and safety of dietary supplements. 2006-2012.

## TEACHING ACCOMPLISHMENTS

**Areas of Teaching Specialization:** nutrition, lifecycle nutrition, international nutrition, science communications

### Courses Taught

Introduction to Nutritional Sciences; 40+ semesters; > 10,000 students

Science Communications; 10 semesters; > 300 students

Advanced Readings in Nutrition; 10 semesters; > 100 students

### Students Advised

#### *Graduate Major Advisor – Current*

Alex Gogel (MS, FCS, UI), 2018-present

Sarah Boothman (PhD Zoology, SBS, WSU), 2016-present

#### *Graduate Major Advisor – Completed*

Kimberly Lackey (PhD Zoology, SBS, WSU), 2012-2018

Janae Mosely (MS Zoology, SBS, WSU), 2012-2014

Mara Riley (MS Zoology, SBS, WSU), 2010-2012

Natalie Collier (MS Nutrition, FSHN, WSU), 2003-2005

Afroza Hasin (MS Nutrition, FSHN, WSU), 2002-2004

Kristin Ritzenthaler (MS Nutrition, FSHN, WSU), 1996-1998

Kristin Ritzenthaler (PhD, FSHN, WSU), 1999-2002

Nicole Anderson (MS Nutrition, FSHN, WSU), 1999-2002

Colleen Doherty (MS Nutrition, FSHN, WSU), 1999-2002

Nikki Masters (MS Nutrition, FSHN, WSU), 1997-1999

Yongsoon Park (PhD Nutrition, FSHN, WSU), 1995-1998

#### *Graduate Committee Member – Current*

Kendi Phelps (MS FCS, UI), 2020-present

Sachin Sharma (MS AVS, UI), 2019-present

Haley Peterson (PhD AVS, UI), 2018-present

#### *Graduate Committee Member – Completed*

Alba Boix Amorós (PhD, Biotechnology, Polytechnique University of Valencia), 2019 (external reviewer)

Sarah Reyes (PhD, Human Nutrition, Cornell University), 2014-2019

Sarah Brooker (PhD, UI), 2013-2019

Shima Bibi (PhD, Food Science), 2014-2017

Keri Ferolito (MS, Zoology), 2015-2017

Janet Williams (PhD, UI), 2012-2016

Joy Erlenbach (MS, SBS), 2011-2014

Katherine Hunt (PhD, UI), 2008-2012

Shannon Shields (MS, UI), 2009-2010

Travis Hanson (PhD, UI), 2002-2009

Julie Kelsey (PhD, UI), 2003-2008

Samuel Mosley (PhD, UI), 2003-2008

Erin Mosley (PhD, UI), 2002-2008

Tracy Ryan-Borchers (PhD, FSHN), 2002-2005

Gladys Tom (MS, FSHN), 2002-2003

Carla Marks (MS, Anim. Sci.), 1999-2001

Kathryn Good (MS, FSHN), 1999-2001

Elizabeth Soll (PhD, FSHN), 1998-2001

Srikant Viswanadha (MS, UI), 1998-2000

Heather Newberry (MS, FSHN), 1998-2000

H. Sara Memom (PhD, FSHN), 1997-1999

Heather Knox (PhD, FSHN), 1996-1998

#### *Postdoctoral Fellows Advised*

Bethaney Fehrenkamp, 2019-present

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Ryan Pace, 2019-present

Kimberly Lackey, 2018-2020

Mohammed Shahin Alam, 2005-2007

#### *Undergraduate Honors Projects - Major Advisor*

Cameron Miskho, 2012-2014 (Pass with Distinction, SBS)

Jennifer Larson, 2004-2006 (Pass with Distinction, FSHN)

Lisa Nicole Harrison, 2001-2003 (Pass with Distinction, FSHN)

#### **Honors and Awards**

Phi Beta Kappa Honorary (Univ. of Illinois chapter; 1986)

Future Leader Award, International Life Sciences Institute (2000)

Ehrlich-Koldovsky Award (emerging investigator), International Society for Research in Human Milk and Lactation (2002)

Thomas E. Lutz Teaching Excellence Award, WSU College of Arts and Sciences (2016)

Excellence in Nutrition Education Award, American Society for Nutrition (2018)

#### **SCHOLARSHIP ACCOMPLISHMENTS**

**h-Index: 41**

#### **Publications**

1 – corresponding or senior author; 2 – designed study; 3 – obtained funding for study; 4 – oversaw conduct of study; 5 – contributing participant in associated workshop or activity; 6 – major role in manuscript preparation

#### *Peer-reviewed: in preparation*

Luzan P, Pasko S, Komarova A, **McGuire MK**, Kokina M, Parr C, Chen J, Petrou L, Cheung K, Mursalova A, El-Taravi Y, Peshko D, Simpson M, Pedersen SA, Azad M, Jarvinen-Seppo K, Peroni D, Verhasselt V, Boyle R, Warner J, Munblit D. Breast milk immunological composition: a systematic review. Part I: Methodology and immune active molecule concentrations. (2,6)

Pasko S, Luzan P, Komarova A, **McGuire MK**, Kokina M, Parr C, Chen J, Petrou L, Cheung K, Mursalova A, El-Taravi Y, Peshko D, Simpson M, Pedersen SA, Azad M, Jarvinen-Seppo K, Peroni D, Verhasselt V, Boyle R, Warner J, Munblit D. Breast milk immunological composition: a systematic review. Part II: Maternal and environmental factors influencing immune active molecules concentration in human breast milk. (2,6)

Pasko S, Luzan P, Komarova A, **McGuire MK**, Kokina M, Parr C, Chen J, Petrou L, Cheung K, Mursalova A, El-Taravi Y, Peshko D, Simpson M, Pedersen SA, Azad M, Jarvinen-Seppo K, Peroni D, Verhasselt V, Boyle R, Warner J, Munblit D. Breast milk immunological composition: a systematic review. Part III: Human breast milk immune active molecules concentration and infant health. (2,6)

Boothman S, McGuire MA, Williams JE, Lackey KA, Foster JA, Sellen DW, Kamau-Mbuthia E, Kamundia E, Mbugua S, Moore SE, Prentice AM, Kvist LJ, Otoo F, Rodríguez JM, Ruíz L, Pareja RG, Bode L, Beerman KA, Price WJ, Piaskowski J, Meehan CL, **McGuire MK**. Relating maternal dietary patterns to variation in milk microbiome: The INSPIRE Study. (1,2,3,4,6)

Lackey KA, Williams JE, Sharma R, Williams DL, Meehan C, McGuire MA, Hagge DX, **McGuire MK**. Preliminary examination of milk produced by leprosy-infected and leprosy-uninfected women in Nepal; does it contain DNA from *Mycobacterium leprae*? (1,2,3,4,6)

Reyes SM, Allen DL, Williams JE, McGuire MA, **McGuire MK**, Hay AG, Rasmussen KM. Independent and interactive effects of pumping and cold storage regimens on bacterial content and composition of human milk: A randomized clinical trial. (2,3,6)

Gupta S, Nasar YB, Yoshida S, Althabe F, et al. A rapid research prioritization exercise on COVID-19 for maternal, newborn, child, and adolescent health. (5) *This study and resulting manuscript were spearheaded by the WHO Secretariat. I participated as a subject expert.*

Smilowitz JT, Allen L, Dallas D, McManaman J, Sela D, Seppo A, Williams J, Young B, **McGuire MK**. Ecologies, synergies,

- and systems shaping human milk composition: The BEGIN Project. *Invited review* (1,6)
- Gogel AC, Williams J, McGuire M, Pace R, Wu L, Baker S, West K, Christian P, Shaikh S, Ali H, Price W, Schulze K, **McGuire MK**. Associations between milk microbiome and infant anthropometrics in rural Bangladesh. (1,2,3)
- Meehan CL, Pace RM, Murdoch G, Caffè B, Williams JE, McGuire MA, **McGuire MK**. (2021) Infant-to-mother microbial transfer during breastfeeding. (2,3)
- Pace RM, Williams JE, Jarvinen KM, Meehan CL, Martin MA, Ley SH, Barbosa-Leiker C, Andres A, Yeruva L, Belfort MB, Caffè B, Navarrete AD, Lackey KA, Pace CDW, Gogel AC, Fehrenkamp BD, Klein M, Young B, Rosen-Carole C, Diaz N, Gaw SL, Flaherman V, McGuire MA, **McGuire MK**, Seppo A. Milk produced by women following SARS-CoV-2 infection is a long-lasting source of specific IgA. (1,2,3,4,6)
- Reyes SM, Allen DL, Williams JE, McGuire MA, **McGuire MK**, Hay AG, Rasmussen KM. Pumping supplies alter the microbiome of pumped human milk: An in-home, randomized, crossover trial. (2,3,6)

*Peer-reviewed: in review*

**McGuire MK**, McGuire MA. Microbiomes and childhood malnutrition: What is the evidence? *Annals Nutr Metab. Invited review* (1,6)

*Peer-reviewed: in press or published*

1. Lackey KA, Fehrenkamp BD, Pace RM, Williams JE, Meehan CL, McGuire MA, **McGuire MK**. (2021) Breastfeeding beyond twelve months: Is there evidence for health impacts? *Annual Rev Nutr*, in press. (invited review) (1,6)
2. Pace RM, Williams JE, Robertson B, Lackey KA, Meehan CL, Price WJ, Foster JA, Sellen DW, Kamau-Mbuthia EW, Kamundia EW, Mbugua S, Moore SE, Prentice AM, Kita DG, Kvist LJ, Otoo GE, Ruiz L, Rodriguez JM, Pareja RG, McGuire MA, Bode L, **McGuire MK**. (2021) Variation in human milk composition is related to differences in milk and infant fecal microbial communities. *Microorganisms*. 9, 1153. <https://doi.org/10.3390/microorganisms9061153>. (1,2,3,4,6)
3. Williams JE, **McGuire MK**, Meehan CL, McGuire MA, Brooker SL, Kamau-Mbuthia EW, Kamundia EW, Mbugua S, Moore SE, Prentice AM, Otoo GE, Rodriguez JM, Pareja RG, Foster JA, Sellen DW, Kita DG, Neibergs HL, Murdoch BM. (2021) Key genetic variants associated with variation of milk oligosaccharides from diverse human populations. *Genomics*, 113:1867-1875. (2,3,4,6)
4. Ruiz L, Rubio CA, Carral CG, Quintana EJ, Lackey KA, **McGuire MK**, Meehan CL, Foster JA, Sellen DW, Kamau EW, Kamundia EW, Mbugua S, Moore SE, Prentice AM, Gindola D, Otoo GE, Pareja RG, Bode L, McGuire MA, Williams J, Rodriguez JM. (2021) Comparison of two approaches for the metataxonomic analysis of the human milk microbiome. *Front Cell Infect Microbiol*. 11:622550. doi: 10.3389/fcimb.2021.622550. (2,3,4)
5. **McGuire MK**, Randall AZ, Seppo AE, Jarvinen-Seppo K, Meehan CL, Gindola D, Williams J, Sellen DW, Kamau EW, Kamundia EW, Mbugua S, Moore SE, Prentice AM, Foster JA, Otoo GE, Rodriguez JM, Pareja RG, Bode L, McGuire MA, Campo JJ. (2021) Multipathogen analysis of IgA and IgG antigen specificity for selected pathogens in milk produced by women from diverse geographical regions: The INSPIRE Study. *Front. Immunol*. 11:614372. doi: 10.3389/fimmu.2020.614372 (1,2,3,4,6)
6. Pace R, Williams JE, Jarvinen K, Belfort M, Pace C, Lackey K, Gogel A, Young B, McGuire MA, Seppo A, **McGuire MK**. (2021) COVID-19 and human milk: SARS-CoV-2, antibodies, and neutralizing capacity. *MBio*, 12(1):e03192-20. (1,2,3,4,6)
7. **McGuire MK**, Seppo A, Goga A, Buonsenso D, Collado MC, Donovan SM, Muller JA, Ofman G, Monroy-Valle M, O'Connor D, Pace RM, Van de Perre P. (2021) Best practices for human milk collection for COVID-19 research. *Breastfeeding Medicine*, 16(1):1-10. (1,2,6)
8. **McGuire MK**, McGuire M. (2021) Mapping the human milk microbiome: impetus for a long-awaited renaissance in maternal and infant nutrition research? (invited commentary) *J Nutr*, 151(2): 278-80. (1,6)
9. Committee on Scanning for New Evidence on the Nutrient Content of Human Milk (members of committee: Rasmussen KM, Azad M, Bode L, **McGuire MK**, Nommsen-Rivers L, Saldanha IJ). (2020) Scanning for New Evidence on the Nutrient Content of Human Milk. A Process Model for Determining Age-Specific Nutrient Requirements. Consensus Study Report. Rasmussen, Yaktine, Vorosmart, ed. Washington, DC: The National Academies Press.

- (2,5,6)
10. Azad MB, Nickel NC, Bode L, Brockway M, Brown A, Chambers C, Goldhammer C, Hinde K, **McGuire M**, Munblit D, Patel AL, Perz-Escamilla R, Rasmussen KM, Shenker N, Young BE, Zuccolo L. (2020) Breastfeeding and the origins of health – interdisciplinary perspectives and priorities. *Matern Child Nutr*, 2020;e13109. <https://doi.org/10.1111/mcn.13109>. (5,6)
  11. Lackey, KA, Pace RM, Williams JE, Bode L, Donovan S, Jarvinen KM, Seppo AE, Raiten DJ, Meehan CL, McGuire MA, **McGuire MK**. (2020) SARS-CoV-2 and human milk: what is the evidence? *Matern Child Nutr*, 2020;e13032 (1,6)
  12. Demmelmair H, Jimenez E, Collado MC, Salminen S, **McGuire MK**. (2020) Maternal and perinatal factors associated with the human milk microbiome. *Curr Dev Nutr*, 4(4):nzaa027 [doi.org/10.1093/cdn/nzaa027](https://doi.org/10.1093/cdn/nzaa027). (1,6)
  13. Ruiz L, Garcia-Carral C, Checa MA, Minguez J, Legarra C, **McGuire MK**, Meehan CL, Bode L, Fernandez L, Espinosa-Martos I, Rodriguez JM, Corsorcio INSPIRE. (2020) Proyecto internacional INSPIRE: ¿Qué es normal en la leche humana? (II). Compuestos inmunológicos solubles. *Acta Pediatr Esp*. 78(1-2):e38-e46. (2,3,4)
  14. Casavale KO, Ahuja KJC, Wu X, Li Y, Quam J, Olson R, Pehrsson P, Allen L, Balentine D, Hanspal M, Hayward D, Hines EP, McClung JP, Perrine CG, Brown Belfort M, Dallas D, German B, Kim J, McGuire M, **McGuire M**, Morrow A, Neville M, Nommsen-Rivers L, Rasmussen KM, Zempleni J, Lynch CJ. (2019) NIH workshop on human milk composition: summary and visions. *Am J Clin Nutr*, 2019 Jul 5. pii: nqz123. doi: 10.1093/ajcn/nqz123. (5,6)
  15. Heimbürger DC, Hermann M, McClung JP, **McGuire MK**, Rasmussen KM, Troy LM, Young SL. (2019) The early-career Dannon Institute Leadership Institute: History, programmatic features, outcomes, and perspectives. *Nutr Today*, 2019;54(4):165Y169. (5,6)
  16. **McGuire MK**, Meehan CL, Ruiz L, Minguez J, Legarra K, Checa MA, Manzano S, Frenandez L, Rodriguez JM, Bode L, Corsorcio INSPIRE. (2019) Proyecto internacional INSPIRE: ¿Qué es normal en la leche humana? (I). Oligosacáridos de la leche humana. *Acta Pediatr Esp*. 77(11-12): 188-195. (2,3,4)
  17. Williams JE, Carrothers JM, Lackey KA, Beatty NF, Brooker SL, Peterson HK, Steinkamp KM, York MA, Shafii B, Price WJ, McGuire MA, **McGuire MK**. (2019) Strong multivariate relationships exist among milk, oral, and fecal microbiomes in mother-infant dyads during the first six months postpartum. *J Nutr*, 149(6):902-914. (1,2,3,4,6)
  18. Lane AA, **McGuire MK**, McGuire MA, Williams JE, Lackey KA, Hagen EH, Kaul A, Gindola D, Gebeyehu D, Flores KE, Foster JA, Sellen DW, Kamau-Mbuthia E, Kamundia EW, Mbugua S, Moore SE, Prentice AM, Kvist LJ, Otoo G, Rodriguez JM, Ruia L, Pareja RG, Bode L, Price WJ, Meehan CL. (2019) Household composition and the infant fecal microbiome: the INSPIRE study. *Am J Phys Anthropol*, 1–14. <https://doi.org/10.1002/ajpa.23843>. (2,3,4,6)
  19. Lackey KA, Williams JE, Meehan CL, Zachek JA, Benda ED, Price WJ, Foster JA, Sellen DW, Kamau-Mbuthia EW, Kamundia EW, Mbugua S, Moore SE, Prentice AM, Gindola D, Kvist LJ, Otoo GE, Jimenez E, Ruiz L, Rodriguez JM, Pareja RG, Bode L, McGuire MA, **McGuire MK**. (2019) What’s normal? Microbiomes in human milk and infant feces are related to each other but vary geographically. *Front Nutr*, 6:45. doi: 10.3389/fnut.2019.00045. (1,2,3,4,6)
  20. Reeves WR, **McGuire MK**, Vicini J, Stokes M. (2019) Assessing the safety of pesticides in food: how current regulations protect health. *Adv Nutr*, 10(1):80-88. (6)
  21. Meehan CL, Lackey KA, Hagen EH, Williams JE, Roulette J, Helfrecht C, McGuire MA, **McGuire MK**. (2018) Social networks, cooperative breeding, and the human milk microbiome. *Am J Hum Biol*, 2018 Apr 26:e23131. doi: 10.1002/ajhb.23131. (2,3,6)
  22. Lackey KA, Williams JE, Price WJ, Carrothers JM, Brooker SL, Shafii B, McGuire MA, **McGuire MK**. (2017) Comparison of commercially-available preservatives for maintaining the integrity of bacterial DNA in human milk. *J Microbiol Methods*, Oct;141:73-81. (1,2,3,4,6)
  23. Williams J, Carrothers JM, Lackey KA, Beatty NF, York MA, Brooker SL, Shafii B, Price WJ, Settles M, McGuire MA, **McGuire MK**. (2017) Human milk microbial community structure is relatively stable and related to variation in macronutrient and micronutrient intakes in healthy lactating women. *J Nutr*, 2017 Sep;147(9):1739-1748. (1,2,3,4,6)
  24. Williams JE, Price WJ, Shafii B, Yavah KM, Bode L, McGuire MA, **McGuire MK**. (2017) Relationships among microbial communities, maternal cells, oligosaccharides, and macronutrients in human milk. *J Hum Lact*, 2017 Aug;33(3):540-551. (1,2,3,4,6)
  25. Ruiz L, Manzano S, **McGuire MK**, Meehan CL, McGuire MA, Williams JE, Brooker S, Foster J, Sellen DW, Kamau-

- Mbuthia EW, Kamundia EW, Mbugua S, Moore SE, Kvist LJ, Otoo GE, Lackey KA, Pareja R, Bode L, Rodriguez JM. (2017) What's normal? Immune profiling of human milk from healthy women living in different geographical and socio-economic settings. *Front Immunol*, doi: 10.3389/fimmu.2017.00696. (1,2,3,4,6)
26. **McGuire MK**, Meehan CL, McGuire MA, Williams JE, Foster J, Sellen DW, Kamau-Mbuthia EW, Kamundia EW, Mbugua S, Moore SE, Prentice AM, Kvist LJ, Otoo GE, Brooker SL, Price WJ, Shafii B, Placek C, Lackey KA, Robertson B, Manzano S, Ruíz L, Rodríguez JM, Pareja RG, Bode L. (2017) What's normal? Oligosaccharide concentrations and profiles in milk produced by healthy women vary geographically. *Am J Clin Nutr*, 105(5):1086-1100. (1,2,3,4,6)
27. **McGuire MK**, McGuire MA. (2017) Got bacteria? The astounding, yet not-so-surprising, microbiome of human milk. *Curr Opin Biotechnol*, 44:63-68. (1,6)
28. **McGuire MK**, McGuire MA, Price WJ, Shafii B, Carrothers JM, Lackey KA, Goldstein DA, Jensen PK, Vicini JL. (2016) Glyphosate and aminomethylphosphonic acid are not detectable in human milk. *Am J Clin Nutr*, 2016 103(5):1285-90. (1,2,3,4,6)
29. Jensen PK, Wujcik CE, **McGuire MK**, McGuire MA. (2016) Validation of reliable and selective methods for direct determination of glyphosate and AMPA in milk and urine using LC-MS/MS. *J Environ Sci Health Part B*, 2016;51(4):254-9. (6)
30. **McGuire S**. (2016) Reports from the Agencies: World Cancer Report 2014. Geneva, Switzerland: World Health Organization, International Agency for Research on Cancer, WHO Press, 2015. *Adv Nutr*, 7(2):418-9. (1,6)
31. **McGuire S**. (2016) Scientific Report of the 2015 Dietary Guidelines Advisory Committee. Washington, DC: US Departments of Agriculture and Health and Human Services, 2015. *Adv Nutr*, 7(1):202-4. (1,6)
32. Carrothers JM, York MA, Brooker SL, Lackey KA, Williams JE, Shafii B, Price WJ, Settles M, McGuire MA, **McGuire MK**. (2015) Fecal microbial community structure is stable over time and related to variation in macronutrient and micronutrient intakes in lactating women. *J Nutr*, 2015 Oct;145(10):2379-88. (1,2,3,4,6)
33. **McGuire MK**, McGuire MA. (2015) Human milk: Mother Nature's prototypical probiotic food? *Adv Nutr*, 6:112-23. (1,6)
34. Yahvah KM, Brooker SL, Williams JE, Settles M, McGuire MA, **McGuire MK**. (2015) Elevated dairy fat intake by lactating women alters milk fat and fatty acid profile without changing gene expression in the milk fat globule transcriptome. *Nutr Res*, 35(3):221-8. (1,2,3,4,6)
35. **McGuire S**. (2015) Reports from the Agencies: IOM (Institute of Medicine). 2015. Review of WIC food packages: An evaluation of white potatoes in the cash value voucher: Letter report. Washington, DC: The National Academies Press. *Adv Nutr*, 6(6):863-4. (1,6)
36. **McGuire S**. (2015) Reports from the Agencies: FAO, IFAD and WFP. 2015. The state of food insecurity in the world 2015. Meeting the 2015 international hunger targets: taking stock of uneven progress. *Adv Nutr*, accepted for publication. *Adv Nutr* 6(5):623-4. (1,6)
37. **McGuire S**. (2015) Reports from the Agencies: Institute of Medicine and National Research Council. Examining a developmental approach to childhood obesity: The fetal and early childhood years: workshop in brief. *Adv Nutr*, 6(4):487-8. (1,6)
38. **McGuire S**. (2015) Reports from the Agencies: International Food Policy Research Institute. 2014. Global Nutrition Report 2014: Actions and accountability to accelerate the world's progress on nutrition. Washington, DC. *Adv Nutr*, 6(3):278-9. (1,6)
39. **McGuire S**. (2015) Reports from the Agencies: Expenditures on Children by Families, 2013. US Department of Agriculture, Center for Nutrition Policy and Promotion. Miscellaneous Publication No. 1528-2013. *Adv Nutr*, 6(2):227-8. (1,6)
40. **McGuire S**. (2015) Reports from the Agencies: World Health Organization. Comprehensive Implementation Plan on Maternal, Infant, and Young Child Nutrition. Geneva, Switzerland, 2014. *Adv Nutr*, 6(1):134-5. (1,6)
41. Domer MC, Beerman, KA, McGuire, MA, Dasgupta N, Reeves J, Ahmadzadeh A, **McGuire MK**. (2015) Loss of body fat and associated decrease in leptin in early lactation are related to shorter duration of postpartum anovulation in healthy US women. *J Hum Lact*, 31(2):282-93. (1,2,3,4,6)
42. Bode L, McGuire M, Rodriguez JM, Geddes DT, Hassioutou F, Hartmann PE, **McGuire MK**. (2014) It's alive: Microbes and cells in human milk and their potential benefits to mother and infant. *Adv Nutr*, 5:571-3. (5,6)

43. **McGuire S.** (2014) Reports from the Agencies: Centers for Disease Control and Prevention. State indicator report on physical activity, 2014. Atlanta, GA: US Department of Health and Human Services, 2014. *Adv Nutr*, 5(6):762-3.
44. **McGuire S.** (2014) Reports from the Agencies: Institute of Medicine. 2014. Caffeine in food and dietary supplements: examining safety: workshop summary. Washington, DC: The National Academies Press. *Adv Nutr*, (5):585-6. (1,6)
45. **McGuire S.** (2014) Reports from the Agencies: Consumption of pizza: what we eat in America, NHANES 2007-2010. Food Surveys Research Group Dietary Brief No. 11. *Adv Nutr*, 5(4):456-7. (1,6)
46. **McGuire S.** (2014) Reports from the Agencies: Centers for Disease Control and Prevention. Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Support Breastfeeding Mothers and Babies. *Adv Nutr*, 5(3):291-2. (1,6)
47. **McGuire S.** (2014) Reports from the Agencies: Institute of Medicine. 2013. Evaluating obesity prevention efforts: a plan for measuring progress. Washington, DC: The National Academies Press, 2013. *Adv Nutr*, 5(2):191-2. (1,6)
48. **McGuire S.** (2014) Reports from the Agencies: Institute of Medicine. 2013. Sodium intake in populations: assessment of evidence. Washington, DC: The National Academies Press, 2013. *Adv Nutr*, 5(1):19-22. (1,6)
49. **McGuire S.** (2013) Reports from the Agencies: State indicator report on fruits and vegetables, 2013, Centers for Disease Control and Prevention, Atlanta, GA. *Adv Nutr*, 4(6): 1–2. (1,6)
50. **McGuire S.** (2013) Reports from the Agencies: Caloric intake from fast food among adults: United States, 2007-2010. Frayar DC, Ervin RB. NCHS data brief, no 114. Hyattsville, MD: National Center for Health Statistics, 2013. *Adv Nutr*, 3(5):708-9. (1,6)
51. **McGuire S.** (2013) Reports from the Agencies: Supplemental Nutrition Assistance Program: Examining the evidence to define benefit adequacy. IOM (Institute of Medicine) and NRC (National Research Council). Washington, DC: The National Academies Press, 2013. *Adv Nutr*, 3(5):708-9. (1,6)
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- McGuire MK & O'Connor D., eds.** (2021) *Human Milk: Collection, Analysis, and Variation in Macronutrients and other Macromolecules*. Academic Press.
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*Book Chapters/Proceedings/Outreach*

- McGuire MK, Meehan CL, Brooker SA, Williams JE, Foster JA, McGuire MA.** (2017) An evolutionary, biosocial perspective on variation in human milk microbes and oligosaccharides: An example of eco-homeorhesis? In: *Prebiotics and probiotics in human milk*. Elsevier Publishing.
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- McGuire MK, Butler WR & Rasmussen KM.** (1992) Evaluation of the rat as a model for studying the mechanisms by which malnutrition and lactation prolong the duration of postpartum anovulation. In: *Mechanisms regulating lactation and infant nutrient utilization*. Picciano, M.F., Lonnerdal, B., eds. Contemporary issues in clinical nutrition series. New York: John Wiley & Sons Inc., 413-418.

*Local, Regional, National, and International Presentations (asterisk indicates presenter)*

- \***McGuire MK** (2021) Studying a pandemic during a pandemic: Navigating challenges related to breastfeeding and COVID-19 research. Canadian Nutrition Society, delivered virtually due to SARS-CoV-2 pandemic. April, 2021.
- \***McGuire MK** (2021) Breastmilk ecology genesis of Infant nutrition (BEGIN) project – Working group 2. Chaired and moderated virtual workshop. National Institutes of Health. February, 2021.
- \***McGuire MK**, \*McGuire MA. (2021) Studying SARS-CoV-2 transmission via breastfeeding during the pandemic. University of Idaho Renfrew Interdisciplinary Colloquium. January, 2021.
- \***McGuire MK**. (2020) COVID-19, human milk, and breastfeeding. Bill and Melinda Gates Foundation Grant Challenges Meeting. Scheduled for Mumbai, India but delivered virtually due to SARS-CoV-2 pandemic. October, 2020.
- \***McGuire MK**. (2020) Human milk microbiome: variation and potential impact on maternal and infant health. Microbiome Movement: Maternal and Infant Health. Scheduled for Boston, MA but delivered virtually due to SARS-CoV-2 pandemic. October, 2020.
- \***McGuire MK**. (2020) SARS-CoV-2, breastfeeding, and human milk: a call to action. International Milk Genomics Consortium annual meeting. Scheduled for Davis, CA but delivered virtually due to SARS-CoV-2 pandemic. October, 2020.
- \***McGuire MK**. (2020) Best practices guidelines for collecting and analyzing human milk for COVID-19 research. WHO/NIH COVID-19 and Infant Feeding Research Interest Group. Via Zoom. September, 2020.
- \***McGuire MK**, \*McGuire MA. (2020) SARS-CoV-2, COVID-19, and breastfeeding. UI Department of Physics seminar series. September, 2020. October, 2020.
- \***McGuire MK**. (2020) Flying a jumbo jet while assembling it – studying SARS-CoV-2 during the pandemic. UI FCS seminar series. September, 2020.
- \***McGuire MK**. (2020) COVID-19, breastfeeding, and lactation – getting the science right sooner rather than later. International Society for Research in Human Milk and Lactation. Scheduled for Stockholm, Sweden but delivered virtually due to SARS-CoV-2 pandemic. August, 2020.
- \***McGuire MK**. (2019) The human milk microbiome – who knew? Biology seminar series, Pepperdine University, Malibu, CA, November, 2019.
- \***McGuire MK**. (2019) Nutrients that support lactation. Dannon Maternal and Pediatric Advisory Board meeting, New York City, NY, October, 2019.
- \***McGuire MK**. (2019) Got microbes? An update on the human milk microbiome. Multi-omics for Microbiomes conference, Pacific Northwest National Laboratory, Richland, WA, July, 2019.
- \***McGuire MK**. (2019) Milk microbiome: origin and impact of maternal diet? European Society for Gastroenterology, Hepatology, and Nutrition (ESGHAN), Glasgow, Scotland, June, 2019.
- \***McGuire MK**. (2019) The human milk microbiome: a paradigm shift in infant nutrition. Departmental seminar, University of Massachusetts (Amherst), April, 2019.
- \***McGuire, MK**. (2019) Impact of maternal and infant diets on the microbiome and health. Meeting of the American Gastroenterological Association (AGA) and the European Society of Neurogastroenterology and Motility (ESNM). Miami, Florida, March, 2019.
- \***McGuire, MK**. (2019) Human milk and bacteria - strange bedfellows or longtime lovers? Department of Biological Sciences seminar series, University of Idaho, February, 2019.
- \***McGuire MK**. (2019) Moms, milk, and Monsanto: An up-close-and-personal experience with misunderstandings around conflicts of interest. Breastfeeding and the Origins of Health – Interdisciplinary Perspectives and Priorities, University of Manitoba, Winnipeg, Canada, February, 2019.
- \***McGuire MK**. (2018) Human milk: Mother nature’s quintessential designer food? SAS (Short and Sweet) Research Speaker Series, University of Idaho, December, 2018.
- \***McGuire MK**, McGuire MA. (2018) The intersection of scientific research, university politics, and advocacy backlash. Presented at the US Department of Agriculture’s workshop entitle “Fearing Our Food—Science Communication Challenges in an Era of Mis-Information.” Washington DC, December, 2018.
- \***McGuire MK**. (2018) The human milk microbiome. Biennial meeting of the International Milk Genomics Consortium. Sacramento, California, November, 2018.
- \***McGuire MK**. (2018) The human milk microbiome. Annual meeting of the Academy of Nutrition and Dietetics.

- Washington DC, October, 2018.
- \***McGuire MK.** (2018) The human milk microbiome. Bill and Melinda Gates Foundation Grand Challenges meeting, Berlin, Germany, October, 2018.
  - \***McGuire MK.** (2018) Best practices for conducting human milk studies globally. International Society for Research in Human Milk and Lactation. Kanagawa, Japan, October, 2018.
  - \***McGuire MK, McGuire MA.** (2018) Moms, milk, and Monsanto: The makings of a perfect storm. American Chemical Society. Boston, August, 2018.
  - \***McGuire MK.** (2018) Multipathogen protein microarray: characterizing immune specificity of human milk. Bill and Melinda Gates Foundation, Seattle, June, 2018.
  - \***McGuire MK.** (2018) Managing maniacal moms – since when does being a mom make you an expert on everything? International Consortium on Applied Bioeconomy Research meeting, World Bank. Washington, DC, July, 2018.
  - \***McGuire MK.** (2018) Global variation in human milk oligosaccharides and their relationships with other milk constituents. Annual meeting of the American Society for Nutrition. Boston, MA, June, 2018.
  - \***McGuire MK.** (2018) What is normal milk? New discoveries in human milk composition: diversity and possible function. Annual meeting of the American Society for Nutrition. Boston, MA, June, 2018.
  - \***McGuire MK.** (2018) The human milk microbiome and relationships with maternal nutrition. Seattle Dietetics Association, Seattle, WA, April, 2018.
  - \***McGuire MK.** (2018) The human milk microbiome – A new twist in infant nutrition. 4th International Conference on Gut Microbiota and Health. Shanghai, China, March, 2018.
  - \***McGuire MK.** (2018) INSPIRE: What have we learned so far? Medical Research Council retreat, Keneba, The Gambia, February, 2018.
  - \***McGuire MK.** (2017) What's normal? The human milk microbiome - a paradigm shift in infant nutrition. Microbiome Human Nutrition, Boston, MA, November, 2017.
  - \***McGuire MK.** (2017) Human milk composition; perspectives from academics. NIH Workshop on Human Milk Composition – Biological, Environmental, Nutritional, and Methodological Considerations. Bethesda, MD, November 16-17, 2017.
  - \***McGuire MK.** (2017) Non-nutritive bioactive components and the microbiome. NIH Workshop on Human Milk Composition – Biological, Environmental, Nutritional, and Methodological Considerations. Bethesda, MD, November 16-17, 2017.
  - \***McGuire MK, Williams JE, McGuire MA.** (2017) Eco-homeorhesis – has milk composition plasticity evolved to support optimal health in specific environments and cultures? Nestle Symposium, Lausanne, Switzerland, October, 2017.
  - \***McGuire MK and McGuire MA.** (2017) The human milk microbiome. HiPP Symposium, Munich, Germany, October, 2017.
  - \***McGuire MK and McGuire MA.** (2017) What is “normal” human milk and how is it affected by maternal diet? FASEB Science Research Conference, Lisbon, Portugal, July, 2017.
  - \***McGuire MK and McGuire MA.** (2017) The human milk microbiome. European Society for Gastroenterology, Hepatology, and Nutrition (ESGHAN), Prague, the Czech Republic, May, 2017.
  - \***McGuire MK.** (2017) Prioritizing your time and learning to say “no” (and when to say “yes”)—secrets to becoming a happy and effective scientist. Experimental Biology, April, 2017.
  - \***McGuire MK and McGuire MA.** (2017) The human milk microbiome. Abbott Laboratories, Columbus, OH, April, 2017.
  - \***McGuire MK.** (2017) Nutrition basics for breastfeeding moms and babies. International webinar series, Medela, Inc., March, 2017.
  - \***McGuire MK and McGuire MA.** (2017) Human milk: Mother Nature’s prototypical probiotic? Society for Risk Analysis webinar series, March, 2017.
  - \***McGuire MK.** (2017) Infant and child nutrition. WSU Global Campus webinar series, February, 2017.
  - \***McGuire MK and McGuire MA.** (2016) The human milk microbiome and oligosaccharides; What’s normal, and so what? Annual meeting of the American Dairy Science Association, Salt Lake City, UT, July, 2016.
  - \***McGuire MK.** (2016) The human milk microbiome – a paradigm shift. International webinar series, Medela, Inc., June, 2016.

- \***McGuire MK.** (2016) Glyphosate in human milk – confessions of a (somewhat) naive scientist. Presented as part of a regulatory symposium at Monsanto Company, St. Louis, MO, April, 2016.
- \***McGuire MK.** (2016) Milk, microbes, and Monsanto. WSU Prevention Science Program seminar series, April, 2016.
- \***McGuire MK, McGuire MA.** (2016) Effect of maternal diet on human milk lipids. International Society for Research in Human Milk and Lactation, South Africa, March, 2016.
- \***McGuire MK, McGuire MA.** (2016) Anticipating and handling “big data” in international lactation research – perspectives from a nutrition scientist and lessons from the INSPIRE project. International Society for Research in Human Milk and Lactation, South Africa, March, 2016.
- \***McGuire MK.** (2015) Milk, microbes, and Monsanto. WSU School of Biological Sciences seminar series. November, 2015.
- \***McGuire MK.** (2015) Ecological, anthropological, and environmental aspects of the human milk microbiome. Presented at the FASEB Science Research Conference, Big Sky, Montana, July, 2015.
- \***McGuire MK, McGuire MA.** (2014) Human milk: Mother Nature’s prototypical probiotic food? Presented at the 11th International Milk Genomics Conference in Aarhus, Denmark, October 2014.
- \***McGuire MK, McGuire MA.** (2014) Introduction to the human milk microbiome – yes, there are bacteria in milk! Presented at the 16th meeting of the International Society for Research in Human Milk and Lactation held in Kiawah, SC in October, 2014.
- \***McGuire MK, McGuire MA.** (2014) The human milk microbiome – a paradigm shift. Presented at the Society for Glycobiology meetings in Honolulu, Hawaii, November 2014.
- \***McGuire MK.** (2014) Optimizing nutrition during pregnancy for maternal and infant health. Presented in Dhaka, Bangladesh as part of clinical nutrition symposium, June 21, 2014.
- \***McGuire MK, McGuire MA.** (2014) Human milk and microbes: exploring a new avenue in infant nutrition research. Presented at the Inland Northwest Genomics Research Symposium. University of Idaho. May 22, 2014; see <http://www.ibest.uidaho.edu/events/inland-northwest-genomics-research-symposium/> for more details.
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## Patent

### *Pending*

Garment and method for measuring milk production and breastfeeding parameters.” Patent application #62513630 filed through WSU Office of Commercialization, June 1, 2018. Inventors: Arda Gozen, Michelle McGuire, Abhishek Gannarapu, Kimberly Lackey, Tyler Nelson, Dallas Daaren.

## **Grants, Gifts, and Contracts**

### *Submitted and/or Pending*

University of Idaho (VIP grants). Increasing food and nutrition student enrollment through culinary base camp. PI: Katie Miner. Collaborators: Michelle McGuire and Lori Wahl. \$15,000.

### *Awarded*

Idaho Beef Council. Early beef consumption in Idaho: Perceptions, practices, and relationship to child cognition. PI: Annie Roe. Collaborator: Michelle McGuire. March, 2021 – July, 2022. \$50,000.

Western Australian Future Health, Research, and Innovation Fund. Determinants of human milk-mediated protective immunity against COVID-19. PI: Valerie Verhasselt. Co-PIs: Patricia Macchiaverni, Lieke W.J. van den Elsen, Allison Imrie, Juan M Rodriguez, Michelle McGuire, Melinda Boss, 2020, \$247,830.

Dairy West, “University of Idaho Athletic Fueling Center Sports Nutrition Grant.” PI: Ann Brown. Collaborators: Chris Walsh, Annie Roe, Michelle McGuire, Mahmood Sheikh, Jennie Hall, Jim Miller. \$30,000. September, 2020-August, 2021.

Idaho Department of Commerce, “Free to Feed Food Allergen Test Kit for human milk.” Co-PIs: Trillitye Paullin, Mark McGuire, Michelle McGuire, 2020, \$212,000.

National Science Foundation, “RAPID: Collaborative Research SARS-CoV-2 infection in mother-infant dyads.” PI: Michelle McGuire; CoPIs: Mark McGuire, Courtney Meehan, Melanie Martin, Sylvia Ley; Investigators: Janet Williams, Ryan Pace, Kimberly Lackey, Celestina Barbosa-Leiker, Eleanor Brindle, Daniel Eisenberg, May 16, 2020-May 15, 2021, \$200,000.

Bill and Melinda Gates Foundation, “SARS-CoV-2 in human milk: assay validation and detection in COVID-19+ women.” CoPIs: Michelle McGuire, Mark McGuire, Ryan Pace, Janet Williams, Kirsi Jarvinen-Seppo, Antti Seppo. May 1, 2020-Oct. 31, 2020. \$315,048.

Medela, “COVID-19 and breastfeeding research.” CoPIs: Michelle McGuire, Mark McGuire, Ryan Pace, Janet Williams. Gift grant (donation of pumps and pump kits) with worth of \$9,000. 2020

Medela, “Understanding early variation and impacts on risk for mammary inflammation in women.” CoPIs: Mark McGuire, Michelle McGuire. Gift grant (donation of pumps and pump kits) with worth of \$39,313. 2019

NIH, “Physiological and psychological health disparities among rural and urban adolescents.” PI: Ann Brown. Collaborator: Clarissa Richardson. Mentor: Michelle McGuire. July, 2019-June, 2020. \$66,000.

NIH/USDA, “Understanding early variation and impacts on risk for mammary inflammation in cows and women.” CoPIs: Mark McGuire, Michelle McGuire. Collaborators: Lawrence Fox, Juan Miguel Rodriguez, Janet Williams, Tom Metz, Janet Jansson. Jan. 1, 2019-Dec. 31, 2024. \$2,712,249.

National Science Foundation, “Acquisition of a total reflection X-ray fluorescence spectrometer to enable ultra-trace element analysis at Washington State University.” Co-PIs: Hans Kunz, Jeremiah Busch, Lee Kalcsits, Michael Knoblauch, Michelle McGuire, Karen Sanguinet, Tarah Sulliva, Mechthild Tegeder. \$298,980. July 1, 2018-June 20, 2020.

Bill and Melinda Gates Foundation, “Breast milk quality by maternal nutritional status among lactating women in rural Bangladesh: an analysis from the JiVitA-3 trial bioarchives.” Co-PIs: Kerry Schulze (Johns Hopkins), Lars Bode, Mark McGuire, Michelle McGuire. March 1, 2018-Nov. 1, 2019. \$199,993.

Food and Agriculture Organization (FAO) and the United Nations Children’s Fund (UNICEF). “Livestock programming for nutritional improvements in children under five years of age.” PI: Thumbi Mwangi Co-PIs: Michelle McGuire, Jonathan Yoder, Guy Palmer, Salome Bukachi. Aug. 1, 2018-July 31, 2020. \$2,000,000.

US Department of Agriculture, “Conference on dairy foods: Management, production, bioactive components to enhance health.” Co-PIs: Mark McGuire, Michelle McGuire, Naomi Fukagawa, John Finley. Jan. 2, 2018-March 1, 2020. \$49,974.

WSU Office of Commercialization, “The IntelliBra.” CoPIs: Arda Gozen, Michelle McGuire. Collaborators: Abhishek Gannaranpu, Kimberly Lackey. Feb. 1, 2018-Jan. 31, 2019. \$50,000.

Bill and Melinda Gates Foundation. “Characterizing pathogen-specific antibodies in human milk.” Michelle McGuire,

- Mark McGuire, Courtney Meehan, Janet Williams, Juan Miguel Rodriguez, Xiaowu Liang, Gary Hermanson, Joe Campo, Arlo Randall, Krista Trappl. May, 2017-April, 2018. \$329,934.
- National Science Foundation, "What is normal milk? – Exploring sociocultural, evolutionary, environmental, and microbial aspects of human milk composition." PI: Michelle McGuire; Co-PIs: Courtney Meehan, Lars Bode, James Foster, Sophie Moore. August 15, 2013-August 14, 2019, \$950,000.
- WSU Nutritional Genomics Grand Challenges Seed Grant. "Nutritional genomics of human milk – relating variation in host genomics to milk composition." Michelle McGuire, Courtney Meehan, Mark McGuire. May, 2017-April, 2019. \$80,000.
- Medela. "Childcare choices, microbiomes, and infant behavior – are they related?" co-PIs: Michelle McGuire, Courtney Meehan. April, 2017. \$23,500 (in kind).
- International Society for Research in Human Milk and Lactation, "Breastfeeding, Lactation, and International Public Policy." CoPIs: Sarah Boothman, Michelle McGuire. \$10,000. April 30, 2017-December 31, 2017.
- International Society for Research in Human Milk and Lactation, "Leprosy – is it in human milk?" CoPIs: Kimberly Lackey, Michelle McGuire. March 1, 2017-December 31, 2017. \$10,000.
- WSU Health Equity and Diversity Grand Challenge seed grant competition, "Childcare choices, microbiomes, and infant behavior – are they related?" CoPIs: Courtney Meehan, Michelle McGuire, Edward Hagen, Maria Garstein. Jan. 2017-Dec. 2018. \$20,000.
- WSU Office of Research Strategic Reallocation Initiative, "Nutritional genomics and smart foods for optimal nutrition and health in diverse populations." Roll, Duncan, McGuire, Palmer, Murphy. July 1, 2016-June 30, 2021. \$2,491,430.
- WSU Grand Challenge Seed Grant Completion. "Developmental origins of health and disease: Identifying potential mechanisms for intergenerational transmission of risk and resilience." Waters, Garstein, Pexioto, Connolly, McGuire. June 1, 2016-May 31, 2017. \$75,000.
- Edward R. Meyer Award (WSU), "Examining the evidence and dogma related to leprosy and breastfeeding." PI: Michelle McGuire. November, 2015-March, 2017. \$5,000.
- NSF BEACON, "Has evolution of human milk sugars responded to a biocultural sweet tooth?" Co-PIs: Brenda Murdoch, Michelle McGuire, Mark McGuire, Lars Bode, James Foster, Matt Settles. May 1, 2015-April 30, 2017, \$124,500.
- Monsanto Company (unrestricted research grant), "Support for research in human milk and lactation." PI: Michelle McGuire. \$10,000. November, 2014-October, 2015.
- WSU Proposal Development Stimulus Program, "Proof-of-concept that maternal diet is related to human milk and infant fecal microbiomes." PI: Michelle McGuire. June 1, 2013-May 31, 2014, \$40,000.
- Abbott Nutrition, "The milk microbiome and its role in necrotizing enterocolitis." PI: Lars Bode (University of California San Diego) Co-PIs: Michelle McGuire, Mark McGuire. July 1, 2011-June 30, 2015, \$145,727.
- Bill and Melinda Gates Foundation. "Development of functional foods and breast creams that decrease infectious disease in infants." PI: Michelle McGuire Co-PI: Mark McGuire. Nov. 1, 2010-Nov. 15, 2012, \$100,000.
- United Dairymen of Idaho, "Effect of c9,t11-18:2 conjugated linoleic acid (CLA) supplements and consumption of high fat dairy products on gene expression in the lactating human mammary epithelial cell." PI: Michelle McGuire Co-PIs: Mark McGuire, Janet Williams. Dec.1, 2006 – Nov. 30, 2010, \$204,314.
- United Dairymen of Idaho, "Documentation of the steroid content of bovine milk." PI: Mark McGuire (University of Idaho) Co-PIs: Michelle McGuire, Amin Amadzadeh, Joe Dalton, Mireilee Chahine, Rick Norell. March 1, 2007 – Feb. 28, 2010, \$98,730.
- WSU Cancer Prevention and Research Center, "Effect of CLA supplementation on mammary gene expression in lactating women." PI: Michelle McGuire. June 1, 2005 - May 31, 2006, \$4,000.
- Idaho Beef Council, "Metabolism of vaccenic acid in women: Impact on fatty acids in circulation." PI: Michelle McGuire Co-PI: Mark McGuire. July 1, 2004-June 30, 2005, \$35,663.
- United States Department of Agriculture, "Effect of conjugated linoleic acid intake on milk fat content and growth during the early postnatal period." PI: Michelle McGuire Co-PI: Mark McGuire. Dec. 15, 2000-Dec. 14, 2004, \$220,011.
- Washington State Dairy Products Commission, "State of the art determination of trans fatty acids (TFA) and conjugated linoleic acids (CLA)." PI: Michelle McGuire Co-PIs: Mark McGuire, Mikko Griinari. Jan. 1, 2002-Dec. 31, 2004, \$42,886.

- Washington State Dairy Products Commission, "Determination of isomeric trans fatty acids (including conjugated linoleic acids) in plasma lipid fractions of lactating women consuming butter, regular margarine and no-trans-fat margarine." PI: Michelle McGuire Co-PIs: Mark McGuire, Mohammed Shahin Alam, January 2003-December 2004, \$32,500.
- International Life Sciences Institute Future Leader Award, "Isomeric conjugated linoleic acid intake and milk fat regulation in humans." PI: Michelle McGuire. Nov. 1, 2001-Oct. 31, 2003, \$30,000.
- United Dairymen of Idaho, "Determination of the relationship between maternal circulating isomeric conjugated linoleic acid (CLA) and human milk isomeric CLA concentrations; potential relationships with milk fat content." PI: Michelle McGuire Co-PIs: Mark McGuire, Anne Wright, Jan. 1-Dec. 31, 2002, \$36,500.
- Washington State Vitamin Antitrust Lawsuit Settlement Fund, "The effect of phytoestrogen intake and phytoestrogen supplementation on working memory and visuospatial abilities in postmenopausal women." PI: Kathy Beerman Co-PIs: Michelle McGuire, Lisa Fournier, Tracy Skaer, David Sclar, Linda Robinson. May 16, 2002-May 15, 2005, \$183,640.
- United States Department of Agriculture, "GC-MS for multi-disciplinary ecological studies." PI: Mark McGuire (University of Idaho) Co-PIs: Michelle McGuire, Sanford Eigenbrode, Matthew Morra. July 1, 2003-June 30, 2004, \$50,000.
- Idaho Beef Council, "Role of dietary conjugated linoleic acid (CLA) in inhibiting mammary tumor growth: Regulation of immune response, apoptosis, and gene expression." PI: Mark McGuire (University of Idaho) Co-PIs: Michelle McGuire, Boon Chew, Jean-Soon Park. July 1, 2003-June 30, 2004, \$29,490.
- Baxter Research, "Role of dietary conjugated linoleic acid (CLA) in inhibiting mammary tumor growth: regulation of immune response, apoptosis, and gene expression." PI: Boon Chew Co-PIs: Jean Soon Park, Mark McGuire, Michelle McGuire, July 2002-June 2003, \$20,000.
- Idaho Beef Council, "The interaction of fat intake and trans-10, cis-12 conjugated linoleic acid (CLA) on milk fat and neonatal growth," PI: Mark McGuire (University of Idaho) Co-PI: Michelle McGuire, July 1, 2002-June 30, 2003, \$30,000.
- Dairy Management Incorporation, "Production of dairy products naturally enriched with CLA: relevance to human health." PI: Michelle McGuire Co-PIs: Mark McGuire, Terry Shultz, Terri Boylston, Lloyd Luedecke, Oct. 1, 1996-Dec. 31, 1998, \$94,877.
- Pharmanutrients, "Documentation of the conjugated linoleic acid consumption of breastfed infants, preschoolers and school-aged children." PI: Michelle McGuire, Sept. 1, 2000-Oct. 31, 2001, \$12,000.
- American Cancer Society Institutional Grant Program, "Role of lactation and dietary conjugated linoleic acid (CLA) intake during the postpartum period on mammary cancer in rat dams and their suckling neonates." PI: Michelle McGuire Co-PI: Mark McGuire, Sept., 1999-Aug., 2000, \$20,000.
- Western Dairy Center, "Effect of butter and margarine intake on human milk CLA and fat concentrations in lactating women," PI: Michelle McGuire Co-PIs: Mark McGuire, Kathy Beerman. \$25,000, Aug. 1, 1998-Dec. 31, 2000.
- Washington State Dairy Products Commission, "Role of dairy products in cancer prevention: effect of milk-derived conjugated linoleic acid consumption on immune function in lactating women." PI: Michelle McGuire Co-PIs: Terry Shultz, Lloyd Leuedecke, Mark McGuire, Kristin Ritzenthaler. Dec., 1999-Nov., 2000, \$28,298.
- University of Idaho Research Council Seed Grant, "The effect of dietary conjugated linoleic acid on milk fat synthesis and neonatal growth." PI: Mark McGuire (University of Idaho) Co-PI: Michelle McGuire. \$6,000, July 1, 1999-June 30, 2000.
- Idaho Beef Council, "Effect of isomeric conjugated linoleic acid content on growth of the neonatal rat pup." PI: Mark McGuire (University of Idaho) Co-PI: Michelle McGuire. June, 1999-July, 2000, \$13,494.
- United Dairymen of Idaho, "Role of dietary conjugated linoleic acid (CLA) in neonatal growth and mammary cancer. " PI: Mark McGuire (University of Idaho) Co-PI: Michelle McGuire. Jan. 1, 1998-Dec. 31, 1998, \$13,100.
- United Dairymen of Idaho, "Trans fatty acids: the role of individual isomers in human and bovine milk fat synthesis," PI: Mark McGuire (University of Idaho) Co-PI: Michelle McGuire. Jan. 1, 1998-Dec. 31, 1998, \$4,600.
- University of Idaho Research Council Seed Grant, "Effect of maternal conjugated linoleic acid (CLA) intake on pup growth and body composition and maternal mammary carcinogenesis." PI: Mark McGuire (University of Idaho) Co-PI: Michelle McGuire. July 1, 1997-June 30, 1998, \$6,000.

MCGUIRE, Michelle (Shelley)

Idaho Beef Council, "The relationship between dietary conjugated linoleic acid and CLA in various hematologic fractions," PI: Michelle McGuire Co-PI: Mark McGuire. July 1, 1998-June 30, 1999, \$25,695.

Finnish Food Industry Research Program on Animal Fats, "The relationship between dietary conjugated linoleic acid and CLA in various hematologic fractions," PI: Michelle McGuire Co-PI: Mark McGuire. May 1, 1998-April 30, 1999, \$20,760.

National Cattlemen's Beef Association, "Determination of conjugated linoleic acid (CLA) intake in humans." PI: Michelle McGuire Co-PIs: Mark McGuire, Terry Shultz. May 1, 1997-April 31, 1998, \$59,362.

Pharmanutrients, "Effect of conjugated linoleic acid (CLA) supplement intake on human milk CLA concentration and fat content." PI: Michelle McGuire Co-PI: Mark McGuire. December 1, 1997-November 30, 1998, \$7,903.

University of Idaho Research Council Seed Grant, "Increasing conjugated linoleic acid content of beef and milk to improve human health." PI: Mark McGuire (University of Idaho) Co-PI: Michelle McGuire. July 1, 1996-June 30, 1997, \$5,530.

National Institutes of Health Grant HD28663, "Regulation of postpartum fecundity by nutrition and suckling in the laboratory rat." PI: Kathleen Rasmussen (Cornell University) Co-PI: Michelle McGuire. 1994-1996, \$287,000.

#### *Not Awarded*

National Institutes of Health. "Impact of SARS-CoV-2 on infant feeding practices: a multi-site study. need to add details here." Co-PIs: Michelle McGuire, Mark McGuire, Courtney Meehan. Co-Is: William Price, Celestina Barbosa-Leiker, Eleanor Brindle, Carlito Lebrilla, Sylvia Ley, \$3,424,474.

Australian National Health and Medical Research Council. "Determinants of human milk-mediated protective immunity against COVID-19." PI: Valerie Verhasselt. Co-Is: Michelle McGuire, P Macchiaverni, A Imrie, L van den Elsen, J Rodriguez, T Kollmann, \$240,110.

FastGrants, "Breastfeeding during the COVID-19 pandemic: Understanding risks and benefits." PI: Michelle McGuire. Co-PIs: Mark McGuire, Janet Williams, Ryan Pace, Courtney Meehan, Celestina Barbosa-Liker, Kirsi Jarvinen-Seppo, Antti Seppo, Sylvia Ley, Melanie Martin, Dan Eisenberg, Eleanor Brindle. August 16, 2020-February 15, 2021, \$293,907.

ISF Incubator, "Determination of the accuracy and calibration needs of technology # 1791 – Intellibra." CoPIs: Michelle McGuire and Arda Gozen, 2020, \$271,347.

International Society for Research in Human Milk and Lactation, "Trainee travel grant to Johns Hopkins University and Gaibandha, Bangladesh for human milk collection." CoPIs: Alexandra Gogel, Michelle McGuire. March-August, 2020. \$9,981.

International Society for Research in Human Milk and Lactation. "Milk matters: Understanding the ecological dynamics of milk and infant microbiomes." CoPIs: Michelle McGuire, Ryan Pace, Mark McGuire. \$100,000.

Bill and Melinda Gates Foundation, "Human milk immunospecificity, microbiomes, and malaria risk in Ugandan infants." Co-PIs: Michelle McGuire, Thomas Egwang, Joe Campo, Mark McGuire, Janet Williams. \$200,000.

National Institutes of Health, "Human milk and infant fecal microbiomes: nutritional and behavioral determinants." Co-PIs: Mark McGuire, Michelle McGuire, Courtney Meehan, Janet Williams, William Price, Rossina Pareja. \$2,831,108.

Gerber Foundation, "Effect of timing of beef-containing complementary foods nutritional status, enteric microbiome, and behavior of infants: a randomized controlled trial." Co-PIs: Michael Colle, Pedram Rezamand, Michelle McGuire, Ling-Ling Tsao, Janet Williams. \$350,000. (preproposal)

Family Larsson-Rosenquist Foundation, "It's alive! The multibiome of human milk; relating variation and functions to mammary inflammation." Collaborators: Michelle McGuire, Courtney Meehan, Juan Miguel Rodriguez, Janet Williams, Mark McGuire. \$307,450. (concept paper)

Family Larsson-Rosenquist Foundation, "Human milk: Exploring impacts of its non-nutritive components on child health, temperament, and behavior." Co-PIs: Courtney Meehan, Michelle McGuire, Mark McGuire, Janet Williams, William Price, Juan Miguel Rodriguez, Gloria Otoo, Rossina Pareja, Elizabeth Kamau-Mbuthia. \$1,999,265. (concept paper)

National Institutes of Health, "Nutritional Genomics of Human Milk Composition - Has Selective Evolution Shaped



- Human Milk to be the Quintessential "Smart Food?" \$3,500,000. PI: Michelle McGuire.  
Bill and Melinda Gates Foundation. "IntelliBra - Redefining confidence for breastfeeding women." co-PIs: Michelle McGuire and Arda Gozen. \$100,000.
- American Society of Nutrition/Dannon Institute Yogurt in Nutrition, "Proof-of-concept that maternal consumption of conventional yogurt during breastfeeding influences milk and infant fecal microbiomes." CoPIs: Michelle McGuire, Mark McGuire, Janet Williams, Kimberlee Burrington. \$30,000.
- NIH/USDA, "Understanding early variation and impacts on risk for mammary inflammation in cows and women." CoPIs: Mark McGuire, Michelle McGuire. Collaborators: Lawrence Fox, Juan Miguel Rodriguez, Janet Williams, Christopher Remien, Benjamin Ridenhour. \$2,502,451.
- BUILD Dairy (Managed by the Western Dairy Center at Utah State University). "Proof-of-concept that maternal consumption of conventional yogurt during breastfeeding influences milk and maternal-infant fecal microbiomes." CoPIs: Michelle McGuire, Mark McGuire. \$180,000. (preproposal)
- Family Larsson Rosenquist Foundation. "IntelliBra – Redefining confidence for breastfeeding women." CoPIs: Arda Gozen, Michelle McGuire. \$145,783. (preproposal)
- National Institutes of Health (R01), "Why are Dutch babies happier? The role of fetal programming." Garstein, McGuire. \$356,757.
- WSU Grand Challenge Seed Grant Completion. "Human milk: Mother Nature's quintessential "smart food?" McGuire, Gomulkeiwicz, Meehan, Gang. \$75,000. Letter of intent.
- WSU Grand Challenge Seed Grant Completion. "Understanding breastfeeding and impact on fecal microbiome in native Americans and Alaska natives." McGuire, Sinclair, Zamora-Kapoor, Buchwald, Duncan. \$75,000. Letter of intent.
- National Institutes of Health R21, "Modeling relationships among complex microbial communities in milk, maternal feces, maternal saliva, maternal breast skin, infant saliva, and infant feces during the first 6 mo postpartum." Co-PIs: Michelle McGuire and Mark McGuire. \$289,821.
- Wellcome Trust, "Is the social stigma justified: can viable Mycobacterium leprae be transmitted through human milk to infants?" CoPIs: Deanna Hagge, Diana Williams, Courtney Meehan, Bill Price, Michelle McGuire. \$1,069,999.
- National Institutes of Health (R01), "Kendall Yards." Duncan, Sterling, McGuire. \$3,142,074.
- NSF BEACON, "Has evolution of human milk sugars responded to a biocultural sweet tooth?" Murdoch, McGuire, McGuire, Foster, Williams. \$112,500.
- The Danish Dairy Research Foundation, "Characterization of metabolomics profiles in human milk produced by healthy women around the globe." Kræmer Sundekilde, Bertram, McGuire. \$178,000.
- WSU Grand Challenge Seed Grant Completion. "Developing "smart wheat" genotypes for gluten-sensitive and celiac patients." Rustgi, McGuire, Ankrah. \$75,000. Letter of intent.
- National Institutes of Health R21. "Factors that influence milk microbial communities leading to lactational mastitis." PI: Mark McGuire Co-PIs: Michelle McGuire, Katherine Hunt. August 15, 2013-August 14, 2015, \$398,590.
- National Institute of Health R15. "Human milk oligosaccharides stimulate growth of Staphylococcus." \$429,542. PI: Mark McGuire Co-PI: Michelle McGuire.
- Thrasher Research Fund, "Influence of human milk oligosaccharides and bacteria on the development of the infant gut microbiome." PI: Mark McGuire Co-PI: Michelle McGuire. \$274,210.
- Berry Family Faculty Excellence Fellowship. "Human milk microbiome and composition: a cross-cultural study among foragers and farmers." PI: Courtney Meehan Co-PI: Michelle McGuire. Jan. 1, 2011-Dec. 31, 2011.
- Bill and Melinda Gates Foundation (Concept Memo), "Proof-of-Concept: Use of molecular methods to investigate if M. leprae can be vertically transmitted from mother to infant during breastfeeding." PI: Michelle McGuire. \$297,413.
- The Heiser Program for Research in Leprosy, "Use of molecular methods to investigate M. leprae in human milk; proof-of-concept." PI: Michelle McGuire. Co-PIs: Deanna Hagge, Kidist Bobosha, Srikanth Tripathy, Keshar Mohanty, Devendra Chauhan, Partha Mohanty, Beenu Joshi, Diana Williams, Courtney Meehan. \$287,413.
- Bill and Melinda Gates Foundation, "Improving household nutrition, health and economic welfare through livestock." PI: Thumbi Mwangi; Co-PIs: Michelle McGuire, Guy Palmer, Tom Marsh, Jon Yoder, Kariuki Njenga, Terry McElwain, Joyce Olenja. \$109,427.
- CCFW Initiative in Inequality of Opportunity and Disadvantage in Children and Families Small Pilot Grant (University of

- Washington), "Documentation of human milk microbiome among Native Americans." PI: Dedra Buchwald; Co-PIs: Michelle McGuire, Mark McGuire. \$20,000.
- NIH IBEST, "Recent changes in human milk oligosaccharides (HMO) driven by maternal genetics?" Co-PIs: Michelle McGuire, Mark McGuire, Lars Bode, James Foster, Brenda Murdoch, Matt Settles. \$150,000.
- Leprosy Research Initiative, "Proof-of-concept that *M. leprae* can be vertically transmitted from mother to child during breastfeeding; validation and use of molecular methods." PI: Michelle McGuire. \$61,955.
- Dairy Research Initiative, "Proof of concept: yogurt consumption during pregnancy and lactation affects establishment of the infant's gastrointestinal microbiome." PI: Michelle McGuire Co-PIs: Mark McGuire, James Foster. August 15, 2013-August 14, 2016, \$400,000.
- National Institutes of Health (IBEST Pilot Program), "Using Technology to Determine the Microbiome of Healthy and Mastitic Milk." PI: Mark McGuire Co-PI: Michelle McGuire, June 1, 2009-May 31, 2011, \$80,000.
- Bill and Melinda Gates Foundation. "The International Human Milk Microbiome Project (IHMMMP): standardization of methods and cross-cultural analysis of human milk samples." PI: Michelle McGuire Co-PIs: Mark McGuire, Juan Miguel Rodriguez, Courtney Meehan, Andrew Prentice, Daniel Sellen, Grace Marquis, Robin Goldstein, Linda Kvist. May 15, 2013-May 14, 2015, \$1,000,000.
- National Institutes of Health R21. "Proof of concept: changes in body fat modulate return of postpartum fecundity." PI: Michelle McGuire Co-PIs: Jan Dasgupta. May 15, 2013-May 14, 2015. \$404,060.
- JL Stubblefield Trust and Bonnie and Clifford Braden Foundation. "Proof-of-concept: documentation of *Mycobacterium leprae* in human milk." PI: Michelle McGuire. \$8,324,
- JL Stubblefield Trust and Bonnie and Clifford Braden Foundation. "The human milk microbiome – identifying maternal factors that can impact bacterial colonization of the infant gastrointestinal tract." PI: Michelle McGuire \$10,024.
- Gerber Foundation, "Documentation of bisphenol A (BPA) content of human milk and environmental BPA exposure of U.S. breastfed infants." PI: Michelle McGuire Co-PI: Mark McGuire \$167,934.
- Gerber Foundation, "The human milk microbiome – Identifying maternal factors that impact bacterial colonization of the infant gastrointestinal tract." PI: Michelle McGuire Co-PI: Mark McGuire \$118,863.
- Gerber Foundation, "Influence of human milk oligosaccharides and bacteria on the development of the infant gut microbiome." PI: Michelle McGuire Co-PI: Mark McGuire \$295,000.
- Gerber Foundation, "Documentation of bisphenol A (BPA) content of human milk and environmental BPA exposure of U.S. breastfed infants." PI: Michelle McGuire Co-PI: Mark McGuire \$206,566.
- Bill and Melinda Gates Foundation. "Understanding physiological mechanisms driving lactation initiation and optimal milk production to achieve healthy growth in early infancy," PI: Michelle McGuire Co-PI: Mark McGuire \$100,000.
- Bill and Melinda Gates Foundation. "Development of use-friendly "test strips" to predict and enhance breastfeeding success." PI: Michelle McGuire Co-PIs: Mark McGuire, Ming Xian. March 1, 2011-Feb. 31, 2012, \$100,000.
- National Institutes of Health. "Nitric oxide, lactogenesis, and obesity." PI: Michelle McGuire Co-PIs: Mark McGuire, Ming Xian. June 15, 2011-June 14, 2013, \$408,188.
- National Institutes of Health. "Relationships among time postpartum, related factors, and human milk microbiome." PI: Michelle McGuire Co-PI: Mark McGuire. June 15, 2011-June 14, 2013, \$357,490.
- Gerber Foundation. "Use of milk/saliva nitric oxide (NO) as a biomarker for breastfeeding difficulties and need for intervention." PI: Michelle McGuire Co-PI: Mark McGuire. Aug. 1, 2011-July 31, 2013, \$182,525.
- National Institutes of Health. "Involvement of nitric oxide in timing of stage II lactogenesis in lean and obese women." PI: Michelle McGuire Co-PI: Mark McGuire. December 1, 2010-November 30, 2012, \$415,689.
- National Institutes of Health. "Relationships among time postpartum, related factors, and human milk microbiome." PI: Michelle McGuire Co-PI: Mark McGuire. December 1, 2010-November 30, 2012, \$357,490.
- Bill and Melinda Gates Foundation. "Development of functional foods and breast creams that induce infant gut mucosal immunity." PI: Michelle McGuire Co-PIs: Mike Konkel, Mark McGuire. May 15, 2010-May 14, 2011, \$100,000.
- Bill and Melinda Gates Foundation. "Development of pre- and probiotic foods for decreasing breast infections and infant illness." PI: Michelle McGuire Co-PIs: Mark McGuire, Larry Forney. May 15, 2010-May 14, 2011, \$100,000.
- Washington State Dairy Products Commission, "Role of dietary conjugated linoleic acid (CLA) in inhibiting leukemia virus replication and growth of virus-infected cells in vitro. PI: Michelle McGuire Co-PI: Jean Soon Park. Sept., 2006-Aug.,

- 2008, \$22,750.
- Lipid Nutrition and Cognis, "Effect of conjugated linoleic acid (CLA) isomer mixtures on milk fat content in overweight/obese lactating women." PI: Michelle McGuire Co-PI: Mark McGuire. Dec. 1, 2006 – Nov. 30, 2007, \$288,917.
- National Institutes of Health, "Impact of inflammation and nitric oxide on onset of lactation in lean and obese women." PI: Michelle McGuire Co-PIs: Mark McGuire, Raymond Quock. Jan. 1, 2008 – Dec. 31, 2010, \$212,604.
- United States Department of Agriculture, "Regulation of human milk conjugated linoleic acid (CLA) content - bioavailability, mammary uptake and de novo synthesis." PI: Michelle McGuire Co-PI: Mark McGuire. Aug. 2005 - July, 2008, \$516,045.
- National Institutes of Health, "Novel use of microarray analysis during human lactation." (resubmission) Co-investigators: PI: Michelle McGuire Co-PIs: Janet Williams, Mark McGuire. Aug. 2005-July. 2007, \$146,800.
- Bristol-Meyers Mead Johnson, "Evaluation of de novo synthesis of cis-9, trans-11 18:2 (conjugated linoleic acid, CLA) from trans-11 18:1 (vaccenic acid) in the lactating, human mammary gland." PI: Michelle McGuire Co-PI: Mark McGuire. Dec. 1, 2004 - Nov. 30, 2005, \$31,500.
- Washington State Dairy Products Commission, "Effect of butter and margarine consumption on mammary lipid synthesis in the breastfeeding woman; Novel use of microarray analysis to study nutrient-gene interactions related to dairy intake." PI: Michelle McGuire Co-PI: Mark McGuire. Jan. 2004-Dec. 2005, \$92,693.
- United States Department of Agriculture, "Use of stable isotopes and microarray analysis to study milk fat regulation in humans and rats." PI: Michelle McGuire Co-PI: Mark McGuire. Jan. 1, 2005-Dec. 31, 2008, \$498,501
- National Institutes of Health, "Use of microarray analysis during human lactation." PI: Michelle McGuire Co-PIs: Mark McGuire, Janet Williams. Aug. 15, 2004-Aug. 14, 2007, \$540,686.
- Washington State Dairy Products Commission, "Effect of conjugated linoleic acid (CLA) supplementation on body weight, body fat and plasma lipid profile in college freshmen at Washington State University. PI: Michelle McGuire Co-PIs: Mark McGuire, Janet Williams. Jan. 2005-Dec. 2005, \$139,581.
- Gerber Foundation, "Role of dietary conjugated linoleic acid (CLA) intake during early life and lactation on long-term risk of mammary tumor growth in the lactating dam and her offspring: Regulation of immune response, apoptosis, and gene expression." PI: Michelle McGuire Co-PIs: Boon Chew, Jean Soon Park, Mark McGuire. Jan. 2004-Dec. 2004. \$78,082.
- Invitrogen, "Functional analysis of gene expression in human milk epithelial cells: potential model system for the study of nutrient-gene interactions in the human mammary gland." PI: Michelle McGuire Co-PIs: Mark McGuire, Janet Williams. Jan. 2004-Dec. 2004. \$78,000
- National Institutes of Health, "Regulation of human milk fat by diet and adiposity." PI: Michelle McGuire Co-PIs: Kathy Beerman, Mark McGuire, Alam Mohammed, Janet Williams. Dec. 2003-Nov. 2007, \$1,395,992.
- National Science Foundation, "Request for a state-of-the-art equipment cluster for analysis of lipids, lipid-like substances, antioxidants, vitamins and pyrimidines in human biological samples and food systems: Liquid chromatography-mass spectrometry (LC-MS) and gas chromatography-mass spectrometry (GC-MS)." PI: Michelle McGuire Co-PIs: M.S. Alam, Kathy Beerman, Joe Powers, Charles Edwards, Terry Shultz, Stephanie Clark, Mark McGuire, Lisa Fournier, David Sclar. \$310,950.
- National Institutes of Health, "Novel use of stable isotopes in lactation." PI: Michelle McGuire Co-PIs: Mark McGuire, Erin Mosley," July 1 2002-June 30, 2003, \$25,000.
- Attorney General of Washington Vitamins Settlement Fund, "Conjugated linoleic acid and human health." PI: Michelle McGuire Co-PIs: Mark McGuire, Terry Shultz, Sebastiano Banni. Jan. 1, 2002-Dec. 31, 2002, \$48,967.
- United States Department of Agriculture (IFAFS), "Intake and function of CLA and trans fatty acids in designer dairy products" PI: Michelle McGuire Co-PIs: Mark McGuire, Stephanie Clark, Lloyd Leudecke, Val Hillers. Sept. 1, 2001-Aug. 31, 2005, \$1,015,755.
- United States Department of Agriculture, "Acceptability and Impact on Human Health of High CLA Dairy Products" PI: Michelle McGuire Co-PIs: Mark McGuire, Stephanie Clark, Lloyd Leudecke. Aug. 15, 2001-Aug. 14, 2003, \$402,034.
- Washington State University New Faculty Seed Grant Program, "Characterization of the relationships among circulating leptin concentrations, body fat and ovulatory function in lactating and nonlactating women." PI: Michelle

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- McGuire, July 1, 2000-June 30, 2001, \$8,000.
- National Institutes of Health, "Regulation of milk fat by conjugated linoleic acid." PI: Michelle McGuire Co-PI: Mark McGuire. Dec. 1, 1999-Nov. 30, 2002, \$445,825.
- United States Department of Agriculture, "Effect of isomeric conjugated linoleic acid intake on milk fat content and growth during the early postnatal period." PI: Michelle McGuire Co-PI: Mark McGuire. Aug. 16, 1999-Aug. 15, 2002, \$332,898.
- Washington State Dairy Products Commission, "Effect of bovine milk and isoflavone consumption on bone health in postmenopausal women." PI: Kathy Beerman Co-PI: Michelle McGuire, Boon Chew. Jan., 2004-Dec., 2004, \$33,469.
- National Institutes of Health, "Effect of dietary lipid on mammary fatty acid synthesis." PI: Peggy Neville (University of Colorado) Co-PIs: Michelle McGuire, Paul McLean. December, 2003-November, 2008, \$1,680,680.
- United State Department of Agriculture, "Enhancing milk CLA content; sensory characteristics and impact on health." PI: Stephanie Clark Co-PIs: Michelle McGuire, Mark McGuire, Virginia Hillers, Lloyd Leudecke. Sept. 1, 2000-Aug. 31, 2003, \$423,679.
- Dairy Management, Inc., "The effect of trans-vaccenic acid on mammary cancer." PI: Mark McGuire Co-PIs: Michelle McGuire, Mikko Griinari. Aug. 1, 2000-July 31, 2002, \$79,000.
- Indian Health Service, "Documentation and characterization of the prevalence of and risk factors for type II diabetes among the Nez Perce." PI: Michelle McGuire Co-PIs: D'Lisa Penney-Pinkham, Karen Bachman-Carter. May, 1999-June, 2000, \$23,400.
- Ross Laboratories, "Effect of conjugated linoleic acid (CLA) supplement intake on human milk CLA concentration and fat content." PI: Michelle McGuire Co-PI: Mark McGuire. 1997, \$10,901
- United States Department of Agriculture, "Isomeric trans fatty acids and conjugated linoleic acid during human growth and development." PI: Michelle McGuire Co-PI: Mark McGuire, 1997, \$319,250.
- Dairy Management Incorporation, "The acute effects of milk fat intake on satiety and plasma leptin, cholecystokinin and conjugated linoleic acid concentrations; interaction with body composition." PI: Michelle McGuire Co-PIs: Mark McGuire, Kathy Beerman, 1997, \$48,328.
- United Dairymen of Idaho, "Trans fatty acids: The role of individual isomers in human and bovine milk fat synthesis." PI: Mark McGuire Co-PI: Michelle McGuire. 1997, \$5,610.
- United Dairymen of Idaho, "Role of dietary conjugated linoleic acid (CLA) in neonatal growth and mammary cancer." PI: Mark McGuire Co-PI: Michelle McGuire. 1997, \$14,425.
- University of Alabama at Birmingham, "Are there consequences of breastfeeding during late pregnancy on the subsequent lactation?" PI: Grace Marquis (University of Alabama) Co-PIs: Michelle McGuire, J. Paul Zimmer. 1996, \$20,000.
- State Board of Education (Idaho), "The influence of nutrition on a potent anticarcinogen, conjugated linoleic acid, in bovine and human milks." PI: Mark McGuire Co-PIs: Michelle McGuire, Terry Shultz. 1996, \$34,978.
- Ross Laboratories, "Importance of dietary CLA in neonatal health: possible effects on infant growth and nutrient partitioning in rats." PI: Michelle McGuire Co-PIs: Mark McGuire, Terry Shultz. 1996, \$55,592.
- American Scandinavian Foundation, "Effect of dietary consumption of isomeric trans fatty acids on milk fat content in humans." PI: Michelle McGuire Co-PI: Mark McGuire. 1996, \$3,978.
- American Institute of Cancer Research, "Modulation of breast cancer prevention by dietary conjugated linoleic acid in humans." Co-PIs: Michelle McGuire, Mark McGuire. 1996, \$161,109.
- National Institutes of Health, "Dietary conjugated linoleic acid in human development." PI: Michelle McGuire Co-PI: Mark McGuire. 1996, \$458,529.
- International Life Sciences Institute, "Integration of nutritional status, lactation and ovulatory function in two species: the lactating cow and the woman." PI: Michelle McGuire Co-PI: Mark McGuire. 1995, \$30,127.

## **SERVICE**

### **Major Committee Assignments**

*University and College*

MCGUIRE, Michelle (Shelley)

CALS *Ad Hoc* Promotion and Tenure Guidelines Revision Committee, co-chair (2019)  
Dept. Animal and Veterinary Sciences Department Head search committee, member (2018-2019)  
120-Day Resilience and Health Disparities (CAS), member of core implementation group (2015-2018)  
120-Day Nutritional Genomics (COM/CAHNRS/CAS/SGAH), member of core implementation group (2015-2018)  
Strategic Planning Committee (College of Arts and Sciences), member (2012-2018)  
ADVANCE Grant (NSF) Advisory Committee, member (2012-2018)  
American Association of University Professors, WSU chapter, member (2009-2018)  
120-Day Study (Provost's Office and Office of VP for Research), Research Themes Committee, member and author (2014-2015)  
Research and Arts Committee (Faculty Senate Committee), member (2012-2015)  
Washington State University Sahlin Award for Excellence in Research, selection committee (2005-2007)  
Halver Nutrition Lecture Series Committee (2003-2005, chair, 2005)  
Washington State University Work/Life Task Force, founding member (2001-2006)  
Washington State University Commission on the Status of Women (presidential committee), appointed member (2000-2005)  
Shared Course Faculty for Freshman Seminars, 1998-2000

#### *Departmental*

FCCLA, faculty advisor (2020-present)  
FCS By-Laws Revision Committee, chair (2018-present)  
Graduate Program Committee (UI), chair and Graduate Program Director (2018-2019), member (2018-present)  
Graduate Program Committee (WSU), member (2017-2018)  
Communications Committee (WSU), chair (2015-2018)  
Search Committee (SBS Clinical Assistant Professor), chair (2015)  
Graduate Student Advisory Committee (SBS), member (2010-2013)  
Search Committee (SBS environmental physiology position), member (2011)  
Graduate Affairs Committee (FSHN) (2003-2006, chair, 2005-2006)  
Nutrition and Exercise Sciences Review Committee (FSHN) (2003-2004)  
Nutrition Graduate Curriculum Review Committee (FSHN) (chair, 2003-2004)  
Nutritional Sciences Undergraduate Option Committee (FSHN) (chair, 2003-2004)  
Safety Committee (FSHN) (2003-2005)  
Graduate Curriculum Review Committee (FSHN) (chair, 2002-2003)  
Space Committee (FSHN) (2002-2004)  
Scholarships and Awards Committee (FSHN) (1998-2007, chair, 2005-2007)

#### **Professional and Scholarly Organizations**

National Institutes of Health: Breastmilk Ecology – Genesis of Infant Nutrition (BEGIN) Project, chair of working group 2 focused on human milk composition (2020-present)  
Idaho Family, Career and Community Leaders of America (FCCLA), board of directors and member of the executive committee (2020-present)  
World Health Organization Maternal, Neonatal, Child, and Adolescent Health COVID-19 Research Network, Research Priority Team (2020-present)  
World Health Organization Maternal, Neonatal, Child, and Adolescent Health COVID-19 Research Network, member (2020-present)  
National Academy of Sciences Committee on Scanning for New Evidence on the Nutrient Content of Human Milk, member (2019-2020)  
Association of Nutrition Departments and Programs, member (2018-present)

- Executive Board, member (2020-present)
- Treasurer (2020-present)

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American Association of Family and Consumer Sciences, member (2019-present)

Federal Human Milk Composition Database Project. Expert member and lead of academic partners. (2017-2019)

FASEB Science Research Conference (SRC) on Origins and Benefits of Biologically Active Components of Human Milk, Co-Organizer with Lars Bode; Big Sky, Montana (July, 2015); see <http://www.faseb.org/Science-Research-Conferences.aspx> for details.

National Institutes of Health "B-24 Project," invited expert involved in development of dietary guidance for infants (birth to 24 mo of age) for the 2020 Dietary Guidelines for Americans (2013)

Northwest Science Writers Association, member (2013-2018)

Dannon Leadership Institute Nutrition Leadership Institute (NLI), executive faculty trainer (2008-2018)

American Society for Nutrition, member (1987-present)

- Graduate Student Awards Competition, jury member (2015)
- Nutritional Sciences Council, Executive Committee member (2014-2016)
- Society Awards, jury member (2012)
- Public Information Committee, member (2010-2013)
- History of Nutrition Committee, member (2010-2013)
- National Spokesperson (2008-2017)
- Reviews, Papers, and Guidelines Committee, inaugural chair (2008-2010), member (2010-2012)
- Proctor and Gamble Student Awards Committee, chair (2008-2009)
- Executive Board (2006-2008)
- Director of the Research Interest Sections (2006-2008)
- Symposia Advisory Committee, member (2006-2008)
- Scientific Program Committee, member (2003-2009)
- Public Information Committee, member (2007-2008)
- Awards Advisory Committee, inaugural chair (2007-2008)
- Graduate Nutrition Education Committee, member (2003-2005)
- Human Milk and Lactation Research Interest Section, chair (2003-2005)
- Nutrition Notes, Western Section editor (1998-2007)
- Annual meeting symposium, organizer and chair (1999, 2006, 2008)
- Annual meeting oral session, organizer and chair (1998, 2003, 2007, 2009, 2010)

International Society for Research in Human Milk and Lactation, member (1987-present)

- Social Media *Ad Hoc* Committee, member (2018-2019)
- By-laws Revision *Ad Hoc* Committee, member (2018)
- Secretary/treasurer (2009-2018)
- Executive Committee, member (2003-2005; 2009-2018)
- Director of Scientific Meetings (2003-2005)

Washington State University/University of Idaho Center for Reproduction, member, 1999-present

## PROFESSIONAL DEVELOPMENT

### Scholarship

Summer, 2018	Biology of Vector-Borne Diseases (week-long course), University of Idaho
Fall, 2017	Washington State University I-Corps Program, funded by The National Science Foundation
Spring, 2017	Medical Officers Training Course in Leprosy, Anandaban Hospital, Lalipur, Nepal
2013-2014	Department of Animal Nutrition and Management, Swedish Agriculture University (SLU), Uppsala, Sweden (sabbatic)
2006-2007	Department of Microbiology, Molecular Biology, and Biochemistry, University of Idaho (sabbatic)

### Administration/Management

2020 Academic Impressions, Women's Leadership Success in Higher Ed, scheduled to be in Seattle, WA but

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2019 occurred virtually due to COVID-19 (3-day training)  
Center for Creative Leadership, Leadership Development Program, Colorado Springs, CO (week-long training)

2016-2017 Provost's Leadership Academy, Washington State University, Pullman, WA (year-long training)

2010 Dannon Institute® Mid-Career Nutrition Leadership Institute (week-long training)

1999 Dannon Institute® Nutrition Leadership Institute (week-long training)