

**CURRICULUM VITA*****Shelly P. Hogan******Office: 405 Reid Hall, Montana State University, Bozeman MT 59717******e-mail: [shellyhogan@ymail.com](mailto:shellyhogan@ymail.com)*****EDUCATION**

*Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg VA* **2009**  
**Ph.D. Food Science and Technology**

Recipient of a National Science Foundation (NSF) Macromolecular Interfaces with Life Sciences (MILES) Integrative Graduate Education and Research Trainee (IGERT) Fellowship

*Montana State University, Bozeman MT* **2003**  
**M.S. Health & Human Development (emphasis nutrition)**

*Montana State University, Bozeman MT* **1998**  
**B.S. Health & Human Development (emphasis nutrition)**  
 Minor: Spanish (Study Abroad: 1995-1996 University of Granada, Spain)

**ADMINISTRATIVE AND PROFESSIONAL POSITIONS**

*Montana State University (MSU) – Bozeman, MT* **2009-present**  
**Principal Investigator/Project Director - McNair Postbaccalaureate Achievement Program**

- Oversee undergraduate students who are first-generation/low-income or racial/ethnic minorities traditionally underrepresented in graduate school (U.S. Department of Education funded, current 5-yr. \$1.3M).  
[www.montana.edu/mcnair](http://www.montana.edu/mcnair)

*MSU – Academic Affairs/Office of the Provost, Bozeman, MT* **2014-present**  
**Assistant to the Associate Provost/Special Projects Assistant**  
 - Responsible for expanding portfolio of federal and private grants in the Office of Academic Affairs related to undergraduate student retention, completion, and research opportunities.

*Yellowstone Evaluation Services, LLC – Bozeman, MT* **2014-present**  
**Co-Founder & Principal Evaluator**  
 - Prepare evaluation plans for grant proposals. Implement evaluation (qualitative and quantitative data collection, analysis, research, and reporting on project impact).  
 - Consulting project examples: USDA-Integrated Pest Management, NSF Experimental Program to Stimulate Competitive Research (EPSCoR), Department of Education (TRIO McNair and Student Support Service), MSU Department of Sociology project on Montana Co-Operatives, MSU Student Affairs on Hilleman Scholars Program.

*MSU – Nutrition Research Laboratory, Bozeman, MT* **2004**  
**Research Assistant/Study Coordinator**  
 - American Heart Association funded project investigating inflammatory response to muscle injury in humans.

*University of North Carolina School of Medicine, Chapel Hill, NC* **2003**  
**Program Coordinator – Dept. of Psychiatry: Women’s Stress & Health Research Laboratory**  
 - National Institutes of Health (NIH) funded study investigating premenstrual dysphoric disorder in women.

*GlaxoSmithKline Pharmaceutical, Research Triangle Park, NC* **2002**  
**Research and Development Assistant**  
 - Screening and characterizing HIV-Virology drug candidates.

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**ACADEMIC TEACHING POSITIONS**


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Montana State University – Bozeman, MT

**Adjunct Instructor** – McNair Graduate School Prep Seminar **2010-present**  
**Adjunct Instructor** – Micronutrient Metabolism (HDFN 422) **2010-2011**  
**Adjunct Instructor** – Sports Nutrition (HDFN 411) **Fall 2009**

Virginia Tech – Blacksburg, VA

**Teaching Assistant** – Functional Foods for Health (FST 4984) **Fall 2008**  
**Teaching Assistant** – Sensory Evaluation of Food (FST 5014) **Spring 2008**  
**Teaching Assistant** – Food Chemistry & Processing (FST 4405) **Fall/Sp 2007**

Montana State University – Bozeman, MT

**Teaching Assistant** – Immunology (MB 402) and Microbiology (MB 301) Laboratories **2004 -2005**  
**Undergraduate Teaching Assistant** – Anatomy Dissection and Physiology (BIOL 410) **2003 -2004**  
**Adjunct Instructor** – Beginner and Intermediate Golf **1998-2004**

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**ACADEMIC RESEARCH POSITIONS**


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Montana State University –Nutrition Laboratory, Bozeman, MT

**Research Assistant – MSU Nutrition Research Lab** **2009-2011**

Virginia Tech – Dr. Zhou Functional Foods Laboratory, Blacksburg, VA

**Graduate Research & Teaching Assistant/PhD Candidate** **2006 -2009**

MSU – Dr. Halonen Neuro-Immunology Laboratory, Bozeman, MT

**Graduate Research & Teaching Assistant/PhD Student** **2005-2006**

MSU – Veterinary Molecular Biology Center, Bozeman, MT

**Graduate Research Assistant/PhD Student** **2004-2005**

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**PATENT APPLICATION**

Zhou, **Hogan**, and Chung. A novel robust alpha-glucosidase inhibitor from fruit extract for diabetes. Provisional US patent application and number 60/976009. **2007**

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**PUBLICATIONS**


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- Peters, Blanchard, Johnson and **Hogan**. Rural McNair Students' Transition to Graduate School: Quantitative Analysis of Anticipatory Socialization Experiences and Self-Efficacy. *American Educational Research Association* (2019).
  - **Hogan**, Zhang, O'Keefe, and Zhou. Grape skin and  $\alpha$ -glucosidase inhibition and enzyme kinetics. *Journal of Bioresource and Technology* (in review).
  - Zhou, **Hogan**, Canning, and Sun. Inhibition of Intestinal  $\alpha$ -glucosidases and Anti-Postprandial Hyperglycemic Effect of Grape Seed Extract. *Emerging Trends in Dietary Components for Preventing and Combating Disease*, ACS Symposium Series 1093, p. 431-442, **2013**.
  - Dai, Ji, **Hogan**, Schmelz, Ju, Canning, and Zhou. Selective growth inhibition of human breast cancer cells by graviola fruit components *in vitro* and *in vivo* involving down regulation of EGFR expression. *Cancer Research*, 63, 795-801, **2011**.
  - Zhang, **Hogan**, Li, Sun, Canning, Zheng, and Zhou. Grape skin extract inhibits mammalian intestinal  $\alpha$ -glucosidase activity and suppresses postprandial glycemic response in streptozocin-treated mice. *Food Chemistry*, 126, 466-471, **2011**.
  - **Hogan**, Canning, Sun, Sun, Kadouh, and Zhou. Dietary supplementation of grape skin extract improves glycemia and inflammation in diet-induced obese mice fed a Western high fat diet. *J. Agriculture Food Chemistry*, 13;59 (7):3035-41, **2011**.
  - **Hogan**, Canning, Sun, Sun, and Zhou. Effects of grape pomace antioxidant extract on oxidative stress and inflammation in diet induced obese mice. *J. Ag. Food Chemistry*, 58, 11250-56, **2010**.
  - **Hogan**, Zhang, Li, Sun, Canning and Zhou. Antioxidant rich grape pomace extract suppresses
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postprandial hyperglycemia in diabetic mice by specifically inhibiting alpha-glucosidase. *Nutrition & Metabolism*, 7, 71-79, **2010**.

- **Hogan**, Chung, Zhang, Li, Lee, Dai and Zhou. Antiproliferative and antioxidant properties of anthocyanin-rich extract from Açai. *Food Chemistry*, 118, 208 – 214, **2010**.
- Zhang, **Hogan**, Li, Chung, and Zhou. Inhibitory effect of raspberries on starch digestive enzyme and their antioxidant properties and phenolic composition. *Food Chemistry*, 119, 592-599, **2010**.
- **Hogan**, Zhang, Li, Zoecklein, and Zhou. Antioxidant properties and bioactive components of Norton (*Vitis aestivalis*) and Cabernet Franc (*Vitis vinifera*) wine grapes. *LWT- Food Science and Tech.*42, 1269-1274, **2009**.
- **Hogan**, Zhang, Li, Wang, and Zhou. Preparation of antioxidant rich peptides from milk protein by microbial proteases and analysis of their effects on lipid peroxidation in cooked beef. *J. Food Chemistry*, 117, 438-443, **2009**.
- Chung, **Hogan**, Zhang, Rainey, and Zhou. Characterization and comparison of antioxidant properties and bioactive components of Virginia soybeans. *J. Agric. Food Chem.*, 56(23), 11515-11519, **2008**.
- Zhou, Hao, Griffey, Chung, O'Keefe, Chen, and **Hogan**. Antioxidant properties of fusarium head blight-resistant and -susceptible soft red winter wheat grains grown in Virginia. *J. Agric. Food Chem.*, 55 (9), 3729 -3736, **2007**.
- **Hogan** and Zhou. Development of antioxidant peptides from milk protein, **Abstract** in POLY 633, Division of Polymer Chemistry for the 234th ACS National Meeting, Boston, MA, Aug., **2007**.
- Miles, Walker, Conant, **Hogan**, and Kidd. Carbohydrate influences interleukin-6 but not C-reactive protein or creatine kinase following a 32-km mountain trail race. *International J. Sports Nutrition and Ex. Metabolism*, 16: 36-46, **2006**.
- Walker, Conant, **Hogan**, Miles. Influence of carbohydrate on IL-6, CRP, and CK following a 20-mile mountain trail race. *Medicine & Science in Sports & Exercise*, 37(5) S373-S374, **2005**.
- Holderness, J, D Buckner, K Rask, M Radke, N Crowley, S Kurk, S **Hogan**, K Day, JF Hedges, and MA Jutila. Stimulation of bovine gamma/delta T cells with agonists including tea extracts, and bacterial, viral and chemical compounds. FASEB J. LB608, **Abstract**, **2005**.
- Miles, Conant, Lemke, and **Hogan**. IL-6, CRP, and CK responses to A 20-mile race at altitude in women verses men. *Medicine & Science in Sports & Exercise*, 36(5) S150, **2004**.
- **Hogan**, King, Campbell, Miles. Relationship of age, season, diet, and physical activity to blood lipids and fibrinogen. *Medicine & Science in Sports & Exercise*, 35(5 Suppl):S349, **2003**.
- Miles, **Hogan**, and King. Acute infection, but not change in physical activity, influences blood lipids and fibrinogen. *Medicine and Science in Sports and Exercise*, 35(5 Suppl):S380, **2003**.
- **Hogan**, Kelsey, King, Miles. Influence of physical activity on inflammatory and anthropometric factors associated with atherosclerosis. *Medicine & Science in Sports & Exercise*,34(5):81S, **2002**.
- Miles, **Hogan**, Kelsey, King, Duffner, Campbell. Age, diet, physical activity and plasma lipid peroxidation kinetics. *Medicine & Science in Sports & Exercise*, 34(5):249S, **2002**.
- Campbell, Tate, **Hogan**, Miles. Soy Consumption and low-density lipoprotein oxidation in type 2 diabetic men. *J. Nutrition*, 132(3):612S, **2002**.

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## NATIONAL/INTERNATIONAL AND REGIONAL PRESENTATIONS

- NCUR FAN Session Peters, Blanchard, Johnson, and **Hogan**. Rural McNair Students' Transition to Graduate School: Quantitative Analysis of Anticipatory Socialization Experiences and Self-Efficacy. MSU-Bozeman, MT March 27, **2020**.
  - High-Impact Practices in the States Concurrent Session at Texas A&M University, College Station, TX. Undergraduate Research as Equity-Driving HQ-HIP, Singel, Seifert, Shaw, and **Hogan**; February 20<sup>th</sup> **2020**.
  - University of New Mexico's Ronald E. McNair Regional & National Research & Leadership Conference – Correlation Between C-Reactive Protein and the Prevention of Diabetes. **Hogan & Velasco**, Albuquerque, NM; Oct. 7-10, **2010**.
  - International Food Technology (IFT) Annual Meeting, Chicago, IL; July 17-20, **2010**.
    - *In vitro* antioxidant activities of protein hydrolysate from *Camelina sativa* seeds
    - Norton grape skin extract selectively inhibits mammalian  $\alpha$ -glucosidases and exerts a novel
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anti-diabetic effect

- Potential AOX and anti-diabetic effects of grape skin extract in diet-induced obesity mice
- American Chemistry Society's National Meeting, Washington, DC, August 16-20, **2009**.
  - Dietary supplement of grape phenolic extract affects glycemic, oxidative, and inflammatory biomarkers in mice fed a high fat diet
  - Comparison of antioxidant properties and bioactive components in Norton and Cabernet Franc wine grapes
  - AOX properties of soy protein hydrolysates prepared from microbial proteases
- IFT Annual Meeting, Anaheim, CA; June 6-June 9, **2009**.
  - Alpha-glucosidase inhibition from AOX rich grape derived phenolic extracts
  - Preparation of antioxidative peptides from milk protein by microbial proteases and their effect on lipid oxidation in cooked beef
  - Anticancerous properties of graviola fruit (*Annona muricata* L.) on breast cancer
- Virginia Tech Annual Graduate Research Symposium. Presentation Title: 12-Weeks of Grape Phenolic Extract Supplementation Effects Glycemic, Oxidative, and Inflammatory Biomarkers in Mice Fed a High Fat (March, **2009**).
- Society for Free Radical Biology and Medicine 15<sup>th</sup> Annual Conference. Poster presentation: *In vitro*  $\alpha$ -glucosidase Inhibitory Activity of Phyto-phenols from *Vitis aestivalis* Grape Skin Extract Rich in Antioxidants; Indianapolis, IN (Nov., **2008**).
- Procter & Gamble: MILES-IGERT NSF Industry Tour presentation: Improving Blood Glucose Levels by Inhibiting  $\alpha$ -Glucosidase with Grape Derived Extracts; Cincinnati, OH (Nov., **2008**).
- IFT Annual Conference, New Orleans, Louisiana (June, **2008**). 1) Phenolic composition and antioxidant properties of Virginia cultivated wine grapes. 2) Comparison and efficiency of different strategies for extraction of AOX from soybean.
- NSF-IGERT Project Meeting/Conference, Washington D.C. (May 18-20, **2008**). Antitumor and Antioxidant Properties of Anthocyanin-rich Extract from Acai.
- Macromolecular Interfaces with Life Sciences (MILES) - IGERT Technical Conference and Review; at Skelton Conference Center, Virginia Tech (October, **2007**): Investigating polyphenolic compounds from food sources as a strategy for treating brain cancer.
- NSF MILES-IGERT Grant Proposal Seminar at Virginia Tech (**2007**): Novel Biocompatible Dendritic Nano-Particle for Early Detection and Targeted Therapy of Human Breast Cancer.
- NSF MILES-IGERT Winter Seminar at Virginia Tech (**2006**): Assessment of Bioactive Food Components and their Antioxidant Capacity on Neuroblastoma Cells.
- American College of Sports Medicine (ACSM) San Francisco (**2003**): Relationship of Age, Season, Diet, and Physical Activity to Blood Lipids and Fibrinogen.
- ACSM in St. Louis, MO (**2002**) & ACSM in Spokane, WA (**2002**): Influence of Physical Activity on Inflammatory and Anthropometric Markers Associated with Atherosclerosis.
- Montana Diabetes Association, Bozeman, MT (**2001**): Potential Link between the Response to an Acute Infectious Illness and Atherogenesis.
- MSU- Annual Awards Banquet: Identifying Factors that Increase the Susceptibility of LDL-cholesterol to Oxidative Modification, Bozeman, MT (**2001**).

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## FUNDING, PROFESSIONAL DEVELOPMENT, CERTIFICATES & HONORS

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| • Principal Investigator/Director, U.S. Department of Education: TRiO McNair Postbaccalaureate Achievement Program, (2017-2023) \$1.3M | <b>2013-2023</b> |
| • Co-Principal Investigator, U.S. National Science Foundation: NCUR 2020 Native American and Tribal College Outreach, \$50,000         | <b>2019-2022</b> |
| • MSU HR Professional Development & Training certificate on Crucial Conversations 16-hour course                                       | <b>2017</b>      |
| • Federal TRiO Priority 3: Project Assessment, Retention & Graduation and Designing Model Programs Training-Certification              | <b>2011</b>      |
| • Federal TRiO Priority 2: Project Budget Management and Legislation and Regulations Training-Certification                            | <b>2010</b>      |
| • Developing Excellence in Academic Leadership Program - MSU   |                  |

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- Doctoral National Science Foundation (NSF) MILES-IGERT Fellowship (\$32,000) **2010-2013**
  - Collaborated with Ph.D. Advisor on writing: The Virginia Specialty Agriculture Research Grant Program (\$19,000) **2006 -2009**
  - Virginia Tech Graduate Doctoral Research Grant (\$600.00) **2008**
  - Collaborated with Ph.D. Advisor: Thomas and Kate Miller Jeffries Memorial Trust proposal (\$35,000) to investigate glucosidase inhibition for utility in preventing and/or treating type-2 diabetes. **2008**  
**2007**
  - MSU-Bozeman Athletic Hall of Fame Golf Team Inductee **2006**
  - Moebus Graduate Fellowship, MSU-Bozeman **2000-2002**
  - MSU-Bozeman, HHD's Outstanding Graduate Student **2001**
  - ACSM Outstanding Graduate Student Oral Research Presenter (Musculoskeletal Health across the Life Span, Spokane WA) **2002**
  - Dean's List undergraduate and graduate semesters **1993 – 2002**
  - Academic All-Conference Award (MSU-Women's Golf) **1993 -1995**
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### **ACADEMIC SERVICE**

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- National Conference on Undergraduate Research (NCUR). MSU was to host in 2020. – Proposal contributor and NCUR Steering Advisory Committees **2016-2020**
  - Sharing the Responsibility for Native American Student Success with U.S. Dept. of Ed. Undersecretary Dr. Kanter (Panelist) **July, 2012**
  - Graduate Education in Health for Minority Scholars (GEhMS) IGERT Program – Advisory Committee **2011-2019**
  - Blackfeet C.C. Issksiniip Scholars Project – Advisory Committee MSU-Bozeman affiliate program **2011-2016**
  - Council American Indian Project Directors Council – MSU-Bozeman **2009-present**
  - NSF Partnerships for International Research and Education WildFIRE PIRE Program- Internship Coordinator **2010-2018**
  - Designing Our Community (DOC) - Search Committee for Director in the College of Engineering at MSU-Bozeman **2011**
  - Native American Task Force Committee at MSU-Bozeman **2011**
  - University College - Undergraduate Scholarship Selection Committee **2011-13**
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### **PROFESSIONAL AFFILIATIONS AND COMMUNITY ENGAGEMENT**

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- *Professional Affiliations and Memberships:* National Council on Undergraduate Research, Council for Opportunity in Education, TRIO's ASPIRE Regional and State (contributor to newsletters and state FactBook publications on TRIO programs 2010-present), American Diabetes Association, American Heart Association, and the Institute of Food Technologists
- McNair Scholars Adopt a Highway for the Montana Department of Transportation
- Volunteer as a Team Judge for Montana FIRST FTC/FLL Robotic Tournaments (2010-2018)
- Volunteer for special needs program (Eagle Mount, Bozeman MT): golf, aquatic, equine & ski therapy
- Co-director for S.G. Komen Breast Cancer Rally for a Cure Golf Tournaments, Cottonwood G.C.
- Physical therapist & dietary aide at San Juan Hospital, Granada, Spain