

CURRICULUM VITAE

NAME: Barbara Rasco

DATE: November 30, 2018

RANK OR TITLE: Professor and Director

DEPARTMENT: School of Food Science

DATE OF FIRST EMPLOYMENT AT UI: July 2015

DATE OF TENURE: NA

DATE OF PRESENT RANK OR TITLE: July 2015

EDUCATION BEYOND HIGH SCHOOL

- JD** Seattle University/University of Puget Sound. **1995** Licensed to practice in the State of Washington. Admitted to practice in federal court.
- PhD** University of Massachusetts. Food Science and Nutrition. **1983** Minor in food engineering. Dissertation title: "Isolation and characterization of dogfish pancreatic lipase".
- BSE** University of Pennsylvania. Philadelphia, PA **1979** Bioengineering (biochemical engineering). Minors in chemical and instrumentation engineering.

Certificates and Licenses:

Licensed to practice law in the State of Washington, 1995

Admitted to practice in federal court, 1995

Better Process Control School, Lead Instructor, 1986

Seafood HACCP Alliance, Lead Instructor, 2000

Certified Civil Mediator, University of Idaho, 2006

FSPCA Lead Instructor (Human Foods), 2016

FSCPA Lead Instructor (Animal Foods), 2016

Produce Safety Alliance Lead Instructor, 2016

EXPERIENCE

Director, School of Food Science. 2014 - Interim Director, School of Food Science, **2013 – 2014.** Washington State University/University of Idaho. Manage undergraduate and graduate teaching programs (on campus and on-line), research and outreach activities for a program with an annual operating budget of ~ \$8M, 25 faculty and staff and 230 students at 7 locations including 80+ distance degree MS students. **Director, PNW Region, Western Regional Food Safety Center,** USDA (2015- present); **Director, Graduate Programs SFS,** 2012 -2014. **Director, MS Ag Food Science Management Degree Program,** 2013 - present. **Director, Food Science Certificate Program,** 2013 – present.

Professor, School of Food Science formerly Department of Food Science and Human Nutrition, Washington State University, Pullman, WA. 1998 – present. Teach and conduct research in the areas of food protection, processing and analytical chemistry. Interests include: food safety (microbial and chemical), food protection strategies,

traceability, products liability, functional foods and ingredients for microbial control, risk assessment and risk management, food technology, food chemistry, food quality and aquaculture. Current research projects involve: detection of adulterants and toxicants in foods using spectroscopic methods, improving validation and verification procedures for microbial inactivation in pasteurized, dielectrically heated and high pressure treated food with an emphasis on heat labile high value products, non-invasive analysis of microbes, analytical method development to monitor changes in nutrient, bioactive and toxin constituents in foods as a result of processing, nanoparticle- food interactions. Provide technical and legal assistance to food processing businesses domestically and internationally.

Division Director/Assistant and Associate Professor, Institute for Food Science and Technology, College of Ocean and Fisheries Sciences, University of Washington, Seattle, WA. 1984-1998. Graduate Faculty: Nutritional Sciences.

Teaching: fisheries technology, food chemistry, food analysis, food laws and regulations, food technology, food quality, and hazard analysis critical control point (HACCP) courses. Research encompassed food product and process development, analytical methods development (non-invasive, spectroscopic, immunochemical), aquaculture and fish nutrition, cereal foods product development, food adulteration and food safety. Consult with regional and local food businesses on food product development, food processing and process monitoring, food safety, regulatory, legal and food quality issues. Criminal law practice in: counterterrorism, international abductions and human trafficking.

Law Clerk, Weyerhaeuser Corp., Tacoma, WA. (1993-1995). Provide legal research on intellectual property, product safety, labor and employment, contract, real estate and environmental law issues.

Head Research Chemist and Quality Control Manager. Cargill Inc., Memphis, TN. (1983 – 1984). Responsible for quality control program at 205,000bu, 20M lb/day facility. Supervised 16 employees. Developed corporate training procedures and analytical methods for Milling Division.

Biochemical Engineer. Cargill Research Dept. Biotechnology Section. Minneapolis, MN. (1982 – 1983). Design and scale-up of enzyme and ion exchange processes for Milling and other corporate divisions. Technology evaluation and transfer. Conducted technical service for corporate research and 3 production facilities.

International Economic Development Program Manager (1995 – 2013): Develop food safety and quality programs including laboratory analyses (chemical and microbiological) for small and medium sized businesses and federal regulatory bodies. Manage and conduct food safety and marketing training programs to increase the value of agricultural products within the community and improve food security. Conduct value chain analyses. Evaluate food security in high risk communities, develop fortified foods for school feeding and infant feeding programs, evaluate domestic and export market potential for agricultural crops and processed foods for emerging economies in Central and South Asia and other regions.

Supervise Borlaug fellows and foreign visiting scientists on WSU campus.

Manage short term education and gender programs involving job creation in agriculture, light manufacturing and textiles sectors. Establish programs at women's colleges. Establish employment programs for disadvantaged individuals.

Draft statutes and national food policy for developing countries. Assist with legislative initiatives and regulatory reform for food, agricultural and natural resource sectors including regulation of inputs and ingredients including GMO. Develop export certification programs meeting international best practices. Draft regulations to comply with WTO and international market and food safety standards.

Program manager for WSU education initiatives in Afghanistan (2008). Manager, International Partnership Agreement, WSU/University of Agriculture, Faisalabad (2009 -2019).

Participated in economic development programs in: Afghanistan, Armenia, Australia, Azerbaijan, Bangladesh, Cambodia, Canada, Chile, China, Croatia, Georgia, Hong Kong, Hungary, Jordan, Iceland, Ireland, Iran, Malaysia, Mexico, Pakistan, Russia, Sri Lanka, Thailand, Tunisia, Turkey, UK (England, Scotland), USA, and Vietnam.

Evaluated many dozen business plans in food and agricultural sector including food service, implementation of good manufacturing practices, food safety, food quality and marketing programs for small and medium sized businesses. Develop legislative initiatives and regulatory reforms in: Afghanistan (2007), Azerbaijan (2005/2006), Mali (2006), Bangladesh (2008), Pakistan (2009, 2010), Cambodia (2012, 2013), Sri Lanka (2013); drafted food safety standards modifying the Soviet GOST derived standards to comply with WTO, EU, or US requirements (Azerbaijan, Georgia, Primorskii Krai (Vladivostok/ Khabarovsk region of Eastern Russia).

Provided state-side technical assistance to economic development, food safety, food defense and food security programs in: Afghanistan, Armenia, Azerbaijan, Bulgaria, Chile, Columbia, Croatia, Egypt, Eritrea, Georgia, Haiti, Hungary, Iceland, Iran, Jamaica, Jordan, Kazakhstan, Mali, Oman, Pakistan, Russia, Sri Lanka, Tajikistan, Tunisia, Turkey, Uganda, Uzbekistan.

Language skills: Russian, Farsi, French, some German and Urdu.

COURSES TAUGHT

Courses currently taught at WSU/UI:

FS 516 Food Laws (2 cr twice annually);

FS 531 Advanced Food Safety and Quality (3 cr annually);

FS 470/570 Advanced Food Processing (3 cr annually), graduate component with process controls emphasis

FS 401-1/501-1 HACCP/Preventive Controls for Human Food (1 cr twice annually)

FS 401-1/501-2 GAP/Produce Safety Rule (1 cr twice annually)

FS 401-3/501-3 Preventive Controls for Animal Food (1 cr annually)

FS 379 Internship coordinator, University of Idaho (variable credit, annually)

FS 495 Internship/directed studies, WSU

Average teaching evaluations: very good.

Previously Taught at WSU:

For dietetics program:

Food Laws (FSHN 370, 3 cr annually)

Food Product Development (FSHN 420 (4 cr annually)

For food science program:

Food Processing (FSHN 303, 3 cr)

Food Law - products liability section, Michigan State University (1 cr)

International Food Laws (products liability section, Michigan State University (1cr).
Average teaching evaluations: very good.

Previously Taught at University of Washington:

Utilization of Fisheries Commodities (Fish 324, 4 cr annually) Food

Chemistry (FS 482,3-4 cr annually)

Food Analysis (FS 483, 3 cr annually) Food

Chemistry Lab (FS 492, 2 cr annually) Food

Analysis Lab. (FS 493, 3 cr annually)

Food Regulations and Related Issues (FS 521, 1 cr).

During alternate years: Advanced Food Chemistry and Biochemistry (FS 522, 3 cr). Other

courses taught: Seafood Quality and Safety (Fish 497, 2 cr)

Chemistry of Aquatic Food Products (Fish 480, 5 cr) Food

Technology (FS 481, 4 cr)

Food Technology Lab. (FS 491, 1 cr)

Deteriorative Processes in Foods (FS 486, 3 cr), Food Safety (FS 498, 3 cr).

In addition, I teach several food safety short courses per year averaging two per month: e.g. FDA HACCP programs, GMPs, SSOPs, GAP, low acid canned food regulations, nutritional labeling).

Average teaching evaluations: very good.

Students Advised

Graduate Students (major supervisor or co-chair):

Graduated 20 doctoral, 30 MS Food Science and 37 MS Ag students to date (Nov 2018). Seventy five current advisees (2 PhD)

K. Gyu. PhD. 2017 – Project TBD

Z. Hua. PhD. 2017 – *Listeria monocytogenes* biofilm – characterization and response to environmental stress.

Alaleh Akhlaghi. MS AG FSM. 2014 – 2019. Effect of Green Tea and Catechin on Cardiovascular Health.

Kiran Parajuli. MS AG FSM. 2015 – 2019. Integrated Pest Management – A Review.

Katelin Merkh. MS AG FSM. 2016 – 2019. A Review of Kombucha Processing and Potential Risk of Elevated Alcohol Content.

Lauren Smith. MS AG FSM. 2016 – 2019. The effect of Rosemary Extract on the Shelf Life of Beverages.

Anna Dice. MS AG FSM. 2015 – 2018. The Bioavailability of Antioxidants in Raspberries

Elizabeth Acken. MS AG 2014 – 2018. Risk for Imported Food – Need for Foreign Supplier Verification Program

Puneet Kaur. MS AG FSM. 2016 – 2018. RICE- Types of Rice, Growing, Handling, and Uses and Utility in Reduced Gluten Diets

Priya Potter. MS AG FSM. 2016 – 2018. Consumer Perception of Pet Treat Texture

Katherine Edwards. MS AG FSM. 2017 – 2018. Current Post-Harvest Intervention Methods and Limitations of Them for *Listeria monocytogenes* on Whole and Fresh Cut Tree Fruit

Kristian Lewis. MS Ag FSM. 2015 – 2018. Advancements in Poultry Litter: Review on broiler health and carcass deposition as a result of the type of litter used by growers

Ryan Schumaker. MS Ag FSM. 2016 – 2018. Global Food Safety Initiative Certified Audit of J.R. Simplot Pilot Plant

Omar Soto. MS AG FSM. 2016 – 2018. Potential Nonthermal Microbial Control Processing Technologies for IQF Raspberries Blueberries and Strawberries

Laura Hartzler. MS AG FSM. 2016 – 2018. Project Seminole – Managing Operational Costs at a Major Ice Cream Facility

Michelle Manning. MS AG FSM. 2016 – 2018. Fixing the National Food Safety Crisis through Integration of Compliance, Conformance, and Culture

Patricia McFarland. MS AG FSM. 2016 – 2018. Efficacy of Food Safety Training in Commercial Food Sector

Victoria Purkey. MS AG FSM. 2015 – 2018. Efficacy of Grains as a Functional Food

Abigail Copenhaver MS AG FSM. 2015 – 2018. A Review of Full Fat Dairy Intake Related to Health Outcomes and Recommendations for Americans

Britney Manzagol. MS AG FSM. 2014 – 2018. Vermont’s Act 120: Impacts of the Scarlet Letter of Mandatory Food Labeling to the National Discourse on GMOs in the United States of America

Lucy Allsop. MS AG FSM. 2015 – 2018. Strategies for Implementing Preventative Controls for Yogurt Squeeze™

Lisa Budd. MS AG FSM. 2015 -2017. Simply Mylked – a product development internship Summer

Calabro. MS AG FSM. 2015-2017. Potato Souffle – A product development internship

Prashant Tank. MS AG FSM. 2014- 2017. Market Fragmentation in Food Manufacturing – The Potential for the “Mass Customization” Paradigm

H. Thalakotuwege. MS AG FSM.. 2013 - 2017. The Impact of the Food Safety Modernization Act (FSMA) on Beverage Industries Producing Drinks Containing Fruit Juices in the USA

Yael Claussen. MS AG. 2014 – 2017. Biofortified sorghum to alleviate vitamin A deficiency in Sub-Saharan Africa.

Patricia Mark MS AG FSM. 2015- 2017. Effect of whey protein isolate and pea protein on the sensorial acceptance of snack crackers.

Elizabeth Odaffer. MS. 2009-2017. Reduction of *Escherichia coli* on fresh apples using the antimicrobial agent peroxyacetic acid.

Jordan Hill. MS AG FSM. 2015-2017. Obesity in Adolescents.

Justin Knott. MS AG FSM. 2016-2017. Harvesting native plants in Alaska for food use – an internship.

Md. Ziyiana, PhD. 2012 –2017. Developing a sensor to detect volatile compounds in milk to monitor shelf life

Alec Lowell. MS AG FSM 2015 – 2017. Sustainable agriculture: Providing food security to underprivileged areas through community supported agriculture and hydroponic operations.

Benjamin Brady MS AG FSM. 2015 - 2017. An introduction to the electronic library notebook and a review of its implementation

Michael Hall Taylor. MS. 2015 – 2017. *Listeria* spp. survival and growth in low moisture foods.

M. R. Ovissipour, PhD. BSE. 2015 – 2017. Kinetic study of quality degradation of Atlantic Salmon (*Salmo salar*) muscle using thermal processing and in response to electrolyzed water and mild thermal processing combination.

Francoise Gukuba MS AG FSM. 2015-2016. Developing a strategy to improve food safety in the home – Rwanda. Defense March 16, 2016. Private sector.

Soo Young Kwon. MS AG FSM. 2014-2016. Use of pesticides in the production of apple. Defense March 23, 2016. US Navy.

Janna Hamlett MS AG. 2014-2016. A Food technology curriculum. Defense May 25, 2016. College of Southern Idaho, faculty.

Ashley Wade. MS AG 2014-2016. Foreign Source Supply chain management. Defense Nov. 21, 2016. Private sector.

Tarek Abdussamed, PhD. 2010 -2015. Controlling microbial contamination in packaged foods by post-packaging processing with UVC light.

Ben Jepson, MS AG. 2015. Gardening strategies for cold weather climates. Private sector.

Elizabeth Wood. PhD. 2014 – 2018. Nanoparticle removal strategies for fresh produce items – effects on respiration, stability and food quality.

Connie Mundianty, MS. 2015. UI. Sorghum – chemistry and functionality. Angel Lu,

MS AG. 2013 – 2015. Genetically modified foods: A review.

Kari Jones. MS. 2014 – 2015. Quality of dielectric pasteurized pasta – texture, sensory and chemical parameters.

Dinesh Uduwana, MS AG. 2011 - 2015. Detection and quantification of *Kudoa* spp. in salmon.

Ammara Hassan. PhD. 2012 – 2014. Use of probiotics in cheesemaking. University of Veterinary and Animal Sciences. Lahore, PK.

Fangliang Carpenter, MS AG. 2013 – 2014. Sausage production: A review.

Chen Liu, MS. 2013 - 2014. Dielectric pasteurization technologies for heat labile aquatic foods.

Yi Rong, MS. 2013 – 2014. Effect of nanoparticle adhesion on respiration of tomato at different ripening stages.

Elizabeth Wood, MS. 2012 - 2014. Nanoparticle toxicity in foods: recovery and analysis.

John Morrison, MS AG. 2012 - 2014. Organic program audit strategies for distilleries

Greg Callahan. MS. 2009 - 2018. Investigating egg shell softness in the sensory characteristics of caviar produced from farmed white sturgeon *Acipenser transmontanus*

Md. Aamad Bajwa. PhD. 2011 - 2013. Validation of Pasteurization Operations and Quality characteristics for vegetables.

Yoo Tak Han. MS. 2010 – 2012. Edible fish gelatin films with nisin: extending shelf-life and maintaining quality of fresh rainbow trout.

Beata Vixie. MS. 2009 - 2011. Spectroscopic method for predicting steroid concentrations in sturgeon tissues and eggs.

Xioanan Lu. PhD. 2009 - 2011. Mechanisms for bacteriostatic and bacteriocidal of bioactive components from *Allium* sp. Professor, Taijin University of Science and Technology, 2011 - , Assistant Professor, University of British Columbia, 2013 -

Di Wu. MS. 2009 - 2011. Monitoring acid induced *Listeria* spp. injury by FTIR and selective plating.

Heather Cantz. MS. 2009. Baking functionality of lentil flour.

Xioanan Lu. MS. 2007 – 2009. Determination of reproductive status of white sturgeon using non-invasive methods; effect on caviar quality.

Luis Castro. MS. 2007 – 2009. Hurdle technologies and control measures for *Enterobacter sakazakii* in infant formula.

Vugar Ahmadov. PhD. 2006 – 2008. Adjunct Professor, Baku University (2008 – 2018, Clinical Professor WSU, 2018 -). An analysis of market structures for international trade in food: Food safety and policy implications.

Estaban Mejia. PhD. 2005 - 2008. Effect of processing methods on phytochemical content in apples and berries.

Dewi Sedyaty. PhD. 2003 – 2008. Kinetics of microwave drying of potato products.

Vugar Ahmadov. MS. 2005 – 2006. Choice of a traceability strategy for US seafood market enhancement: Traceability as a signal of quality.

Memhed Mus. MS, 2005 – 2006. The impact of traceability regulatory requirements on small and medium size enterprises.

Nese Basaran-Agkul. PhD. 2003 – 2006. Dielectric properties of muscle foods. Assistant Professor, University of Ankara.

Mojgan Mousavy-Hesary, MS. 2002 - 2005. Non-invasive spectrophotometric methods for detecting microbial growth.

Hamzah al-Qadiri. PhD. 2003 – 2005. Fourier Transform infrared (FT-IR) spectroscopy, a novel technique to study the biochemical structure of bacterial cells. Assistant Professor, University of Jordan, 2006 – 2010. Associate Professor, 2010 – 2017. Full professor, 2017 - present.

Jonathan Ruiter, MS. 2002 – 2004. Development of pilot scale dielectric methods for pasteurization of high value food products.

Yvonne Rodriguez, MS. 2002 – 2005. Vitamin stability and quality of microwave sterilized food as a function of packaging and product formulation.

Murad al-Holy. PhD. 2001 – 2003. Safety and quality of high value aquatic food products; Microbial food safety and detection methods. Assistant Professor, Hashemite University, 2004 – 2008. Associate Professor, 2009 - present; Associate Dean, 2009 - present.

Mengshi Lin. PhD. 2001 – 2003. Biophysical and optical properties of aquatic food products. Improvement of current non-destructive methods. Research Assistant Professor, WSU, 2004 – 2006. Assistant Professor, University of Missouri, 2006 – 2010. Associate Professor, University of Missouri, 2010 – 2018, Professor, 2018-present.

Lynnette Orellano. PhD. 2001 – 2004. Development and evaluation of enzyme-based biomarkers for thermal and non-thermal pasteurization processes. Assistant Professor, 2004- 2008. Associate Professor, 2008 - present.

Shannon Green. PhD. 2001 – 2002. Development and evaluation of novel microbial biocidal agents for improving the quality of ready-to-eat foods.

Yiqun Huang. PhD. 1998 - 2001. Non-destructive SW-NIR method for detecting moisture and salt in food products. Assistant Professor, Queens College, 2004 – 2008. Professor, Shanghai Ocean University, 2010 - present.

Patcharin Raviyan. 1998 - 2000. PhD. Dean, 2002 - present. Engineered enzyme-based biomarker for thermal process validation.

Kelly Starkweather, 1999 - 2000. MS. Radiofrequency pasteurization process for salmon caviar.

June Wetherington, MS. 1992 – 1998. Subtyping of *Listeria monocytogenes* isolates by fatty acid composition and random amplified polymorphic DNA.

Hordur Kristinsson, MS. 1996 - 1998. Reaction kinetics, biochemical and functional properties of salmon muscle proteins hydrolyzed to 5%, 10% and 15% degrees of hydrolysis by different alkaline proteases. Assistant Professor, 2002 – 2006. Associate Professor, 2006 -2009. Director, Matis Iceland.

Yuqin Huang, MS. 1996 - 1998. SW-NIR and its application to aquatic food products. Qing Zhong. MS. 1995 - 1997. Monospecific polyclonal antibody for detection of fish sarcoplasmic proteins in processed seafood products.

Joann Hudson Lund. MS. 1994 - 1997. Domoic acid uptake and deposition in the Dungeness crab.

Debra Backlund. MS. 1993- 1995. Development of polyclonal detection method for fish parvalbumins.

Thomas Scott. MS. 1990 - 1994. Use of anthraxanthin and canthaxanthin in diets of cultured salmonids.

Pamela Belisle Vaillancourt. MS. 1989- 1992. Evaluation of soluble and insoluble fiber laminates in bakery products

Terri King. MS. 1988 - 1991. HACCP program development for seafood processing operations.

Sahl Gazzaz. PhD. 1988- 1992. Parvalbumins in fish. Immunochemical properties and allergenicity.

Sahl Gazzaz. MS. 1985 - 1987. Nutritional and food quality properties of distiller's grain products from wheat.

Sharon Downey. MS. 1984- 1987. Processing and utilization of distillers' grains in food products.

Current MS Ag students – Major Advisor (70):

Layton Ashmore	Antonie Benjamin	Travis Bettinson	Karla Bonilla
Rashawnda Brown	Nicol Brunner	Alex Bulnes	Briana Burke
Renauldo Coakley	Katie Colgrove	Eva Downs	Brad Drumiller
Matthew Duker	Emily Ellis	Cameron Fancher	Ethan Fink
Thomas Frain	Shannon Fuelner	Scott Fuller	Ximena Garzon
Christina Garza	Benjamin Goodes	Quinton Hansen	Tamie Heaton
Susan Herrera	Amanda Jensen	Nina Jean Jacque	Ali Johnson
Mary Kawleski	Matthew King	Amit Lachwami	Alex Lasher
Ben Lippert	Porter Long	Sarah Luchansky	Dylan Lynch
Geoffrey Maangi	Megan McMichael	Genevieve Menino	Laura Miller
Susan Mungai	Jonah Murphy	Melissa Ney	Steve Plawecki
Julie Plummer	Martin Putz	Frances Rajala	Irene Rangaia
Miriam Tello Reid	G Santaliz Rogers	Rohnda Roig	Kaitlyn Rosploch
Carl Ruiz	Angela Sabbe	Ashley Sabo	Adam Seitz
Donna Smith	Shelley Stancik	Brent Stanhouse	Kyle Stenseth
Matthew Tressler	Trent Viau	Rebeca Vindas	Victor Voyce

Jennifer Walden
Brooke Woodley

James Weinfaul
Rita Younathan

Giana Whiteside

Joyce Wischart

Graduate Committees (WSU and as faculty affiliate, 2003 – present):

Carrie Morishige (MS, U Hawaii, 2004 – 2005) Ron Johnson (PhD, U Idaho, 2005 - 2012)
Mariah Talbott (MS (2008 - 2009), PhD (2009) Montana State)
Bill Johnson (PhD BSE, 2006)
Sun Young Lee (PhD, 2004-2005)
Genesis Dancer (MS, 2005)
Ali Al-Shami (PhD BSE, 2003 - 2007)
Fanbin Kang (PhD BSE, 2005- 2007)
Su-sen Chang (MS, 2003-2004; PhD 2004-2008)
Wang Yu (MS BSE 2004- 2006)
Lia Nogiera (PhD SES 2005)
Ram Pandit (PhD BSE, 2004 - 2006)
Lili He (MS, 2006 – 2007)
Jennifer Brown (MS, 2006 - 2008)
Connie Carson (PhD, Idaho, 2008)
A. Adhakari (PhD, 2008)
B. Maria Soto (MS, 2007 – 2008)
Aditi Kannan (MS, 2007 - 2009)
MR Ovissi (PhD, Tobiat Modares University, 2007 - 2010)
T. Gopal (PhD BSE, 2007- 2009)
Katherine Warren (MS, 2009)
Therese Whistler (MS, 2009 - 2010)
C. Al-Afandi (PhD, 2007 - 2013)
Richard Randall (PhD, IDP, 2009 -2011)
Q. Liu (MS, 2009-2011)
Nissa Morestad (MS, 2009 – 2010)
Y. Ye (MS, 2010 – 2012)
R. Tyagi (PhD, BSE 2010 - 2014)
Tao Dong (PhD, BSE 2010 - 2013)
Amir Golhmohammadi (PhD, UIdaho 2010 - 2013)
Dmytro Kuzyk (MS, 2010 - 2013)
N. Tammeneni (PhD, UIdaho 2010 -2014)
K. Bhunia (PhD BSE, 2012 - 2015)
Z. Dhakan (PhD, U Karachi, 2012 - 2016)
N. Tara (PhD, U Karachi, 2012 - 2015)
R. Ali (PhD, U Karachi, 2012 -2013)
W. Zhang (PhD, BSE, 2013-2014)
T. Millin (MS, 2013)
K. Mc Mahon (PhD, 2013 -2016)
Y. Kang (PhD, 2013 - 2016)
H. Chao (PhD, BSE 2013 - 2015)
H. Zhao, (PhD, 2013 – 2016)
D. Dykus, (MS 2013 – 2015)
C. Jenkins, (MS 2013 – 2014)
E Flieshman, (MS 2013 – 2015)
C. Merrill, (PhD, 2013- 2016)

H. Chao, (PhD 2013 – 2106)
 L. Sheng, (PhD 2013 – 2018)
 S. Bibi, (PhD, 2014 – 2017)
 E. Rodriquez, (PhD, 2014 – 2016)
 J. Wang (PhD, 2015 – 2017)
 K. Sandoval, (MS 2015)
 C. Bernhard, (PhD 2015 -
 B. Gu (PhD, 2015 – 2018)
 R. Taylor, (MS 2015 – 2016)
 E. Walsh, (MS 2015 – 2016)
 W. Maier, (PhD 2015 – 2017)
 D. Masli (MS, 2015 – 2017)
 N. Asen (MS, 2015 – 2017)
 T. Oswald (MS, 2016 – 2017)
 S. Alenezi (MS, 2016 –2017)
 W.J. Lee (MS, 2016-2018)
 C. Sonar (PhD, BSE 2016 -
 P. Kumar (PhD, BSE, 2016 -
 A. Kak (PhD, BSE, 2016 –
 K. DePalma (MS, 2016-2018)
 A. Quintanillo Perez (PhD, BSE 2016 - 2018)
 O. Huang (MS, 2017)
 M. Montero (PhD, 2017 -
 A. Sindi (PhD, 2017 -)
 E. Pietrysiak (PhD, 2018 -)
 E. Baidoo (MS, 2018 - 2019)
 A. Pahthi (PhD BSE, 2018 -)
 P. Ek (PhD, 2018 -)
 S. Ghamdi (PhD, 2018 -)

Undergraduate student research projects (WSU only):

Webb Girard (1998, 1999)	M. Mousavi (2001,2002)
Dave Hammer (2004)	Claire Hoffman (2004, 2005)
Weny Sinyana (2007)	Erin King (2010)
Hannah Damiano (2012)	Nihil Sablani (2012)

Recent Visiting Scholars and Post- Doctoral Research Associates (WSU only from 2003 - present

JH Shin (2003 – 2010)	M. Lin (2003 – 2005)
B. Roi (2004)	P. Basaran (2004, 2005, 2010)
M. Al-Holy (2004-2008)	S. Ahmadova (2006, 2015 - 2018)
H. Al-Qadiri (2006 – 2008, 2010, 2014, 2015, 2018)	T. Zahoor (2009)
Wang Jun (2009, 2010)	X. Lu (2009 – 2013)
M. Shazad (2011)	B. Kang (2011)
P. Valentia (2012, 2013)	A. Rasheed (2012)
R. Ovissi (2011 - 2015)	A. Faleh (2012 - 2013)

Y. Huang (2012 - 2017)
S. Shiroodi (2014 - 2016)
T. Nguyen (2017 - 2018)
J. Cong (2018-2019)

P. Kahuma (2013)
R. Moreno (2017)
D.H. Kang (2019)

Courses Developed: All the courses listed above I developed.

Non-Credit Classes, Workshops, Seminars, Invited Lectures., etc. I teach several food safety short courses per year averaging two per month. Invited lectures are included in a separate publication and presentation list.

Honors and Awards:

Fellow, Institute of Food Technologists (2005)

Elizabeth Fleming Stier Award, Institute of Food Technologists, for humanitarian service (2004)

Distinguished Lecturer, Institute of Food Technologists (2001-2005) on food law and food defense

Distinguished Research Award, CAHNRS WSU (2012)

Undergraduate Teaching Award, College of Ocean and Fisheries Sciences UW (1992) Summer

Institute for Women in Higher Education Administration, Bryn Mawr College, Philadelphia, PA (2001)

Professional Activities:

Institute of Food Technologists, Professional Member (1980-present), Global Food Policy and Regulation Expert Panel (2006 – 2010) including Traceability Initiative (2012-2015); Executive Committee, Food Laws and Regulations Division, Institute of Food Technologists (1996-2000) - Chair 1998-1999)

Certified civil mediator (University of Idaho, 2006)

Other professional memberships:

American Chemical Society

Food Drug Law Institute

American Bar Association

Washington State Bar Association (Recognition for *pro bono* service (2004 – 2017)

King County (formerly) and Whitman County Bar Associations

World Aquaculture Association Pacific

Aquaculture Caucus

Pacific Fisheries Technologists – Officer (1993-1998) including President (1997)

Society of Sigma Xi

Who's Who in Technology Today; Who's

Who Worldwide

Nutrition Information Network

Northwest Consumer Food Safety Council

University and Public Service:

University of Washington: Assistant Director, Division of Aquaculture and Food Science, 1990-1991; interim director Division of Food Science, 1989 - 1990; Graduate School Council, 1996 - 1998; Faculty Senate, Representative Group III, 1988-1990; College Council, alternate 1988- 1989, 1995 - 1996; Research Council member, 1986-1988; Executive Committee (School Council), School of Fisheries, 1990-1991, 1995- 1996; Graduate Program Advisor, 1985-1986; Graduate Academic Standards (Admissions) Committee, Chair 1985-1986, member, 1988-1993; Scholarship Committee, Chair, 1985-1987, member 1984-1985,1987-1988, 1991-1992; Recruitment, Academic Standards and Scholarship committee, member 1991 - 1993; Undergraduate Advisory Board, 1992 – 1994; Doctoral exam committee, 1992 - 1996; chair 1995-1997; Director, Undergraduate Senior Project (Internship) Program, 1993 – 1996.

Washington State University: Faculty Senate, WSU (2005-2014), Graduate Affairs Committee, WSU (1998 – 2005, 2009- 2013); Undergraduate Advisor, 1998 - present. College Scholarship committee (2002-2006), Chair (2005- 2007); Graduate School Mentor (2009 -present), CAHNRS P&T (2010- 2013), University of Idaho administrative hearing boards (2014 – present). Member of various university search, program review, curriculum development & long range planning committees.

Service to the profession:

- Fellows Jury Institute of Food Technologists, Awards Committee, 2017 – 2020.
- BPCS Coordinator Executive Board, Grocery Manufacturer’s Association, 2018 – 2021.
- Instructor, Global Cold Chain Alliance. WFLO Institute. Refrigeration systems. 2017,
 - 2018.
- Entrepreneurial Faculty Ambassadors, Washington State University
- Technical Advisor and Board Member, Washington IMPACT, a Department of Commerce Manufacturing Technology Center, 2016 – present.
- Scientific Advisor: Global Cold Chain Alliance, World Food Logistic Organization, 2012 – present.
- Executive Committee, Western Regional Aquaculture Consortium, (2005 – 2018), Chair Research Subcommittee, (2008- 2011), member Research Subcommittee (2012 – 2019)
- Advisor, National Congress of American Indians, Columbia River Intertribal Fish Commission: FSMA compliance, jurisdiction and impacts to small producers (2012 – 2018).
- USDA National Review Panel – Aquaculture and Fisheries (2013, 2014).
- National Food and Nutrition Security Policy, Federal Ministry of National Food Security and Research, Government of Punjab, Pakistan (2013).
- Trilateral Commission, US/Pakistan/Afghanistan. Trade Corridors Working Group. USDA FAS (2009 – 2013).
- Expert Advisory Panel (GCCA) to FDA. On: Hazard analysis and risk assessment for high and medium risk foods; Implementation of the Food Safety Modernization Act; preventive measures (2010-2013).
- Expert Advisory Panel (GMA) to FDA on cGMPS & low acid food regulations (2014 - present).
- Expert Advisory Panel (IFT) to FDA: Traceability for aquatic foods GFSI. Draft guidance (2012-2015).

- Expert Advisory Panel, IIFSH and Preventive Controls for Human Food Alliance, International programs (2015 -present).
- Advisor, Sri Lanka Food Processors Association: International food safety compliance, national policy on food safety and strategies for building capacity in the agricultural sector (2013-2015).
- External dissertation examiner, several universities in India, Pakistan, Sri Lanka and Austria
- Chair, Seafood/Aquaculture Safety Center of Excellence of the National Alliance for Food Safety (2001 – 2003).
- Institute of Food Technologists
 - Division Chair, Institute of Food Technologists, Food Laws and Regulations Division (1998 – 1999).
 - Executive committee, Food Laws and Regulations: (1995- 2000), Global Regulations and Policy Division/Expert panels (2006-2013), Awards Committee (2006 – 2008)
 - Committees (Fellows, Industrial Scientist) (2006 – 2010).
- Journals, Current or former Associate Editor:
 - *World Aquaculture Society*
 - *Journal of Aquatic Food Product Technology*
 - *International Journal of Aquatic Science*
 - *Journal Agriculture Research and Development*
 - *International Journal of Natural Resources and Marine Sciences (IJNRMS)*
 - *Journal of Ocean University of China*
 - *Journal of Food Science and Nutrition*
 - University of Idaho Fast Track Extension

• Reviewer for:

<i>J. Food Science</i>	<i>J. Agricultural and Food Chemistry</i>
<i>Analytical Chemistry</i>	<i>Applied and Environmental Microbiology</i>
<i>Aquaculture</i>	<i>Aquaculture Nutrition</i>
<i>Aquaculture Reviews</i>	<i>Aquaculture Trends</i>
<i>Bioprocess Technology</i>	<i>Bioresources and Technology</i>
<i>Cereal Chemistry</i>	<i>Compar. Biochem. & Phys.</i>
<i>Critical Rev Food Sci & Nutr</i>	<i>EMS Microbiology Letters</i>
<i>Food Chemistry</i>	<i>Food Control</i>
<i>Food Hydrocolloids</i>	<i>Food Microbiology</i>
<i>Food Process. & Pres.</i>	<i>J. Food Protection</i>
<i>Food Protection Trends</i>	<i>Food Reviews Int.</i>
<i>International J. Microbiology</i>	<i>J Agric. Food Chem J</i>
<i>Bioterrorism and Food Defense</i>	<i>J Food Engineering J</i>
<i>Food Protection</i>	<i>LWT</i>
<i>Pakistan J. Zoology</i>	<i>Process Biochemistry</i>
<i>Reviews in Fisheries Science</i>	<i>Sensing and Instrumentation</i>
<i>Thermochimica Acta</i>	<i>World Aquaculture Society</i>

PNW Extension Publications

- Governmental and Granting agencies reviewer:

BARD
Congressional Research Service

General Accounting Office
USDA – SBIR

USDA special grant	NSF - NSF- SBIR
USDA NRICGP	USDA NRI- NIFA
US Dept Commerce Saltonstall- Kennedy	Canada National Science Foundation

Other Activities

- APEC US representative, Fisheries Utilization, Conquimo Chile, 2018
- HACCP Consortium. National HACCP Alliance. Committee for training materials, education, and program evaluation; train the trainer program, 1995 – 1998.
- Codex Alimentarius Committee, Seafood, 2002, 2011.
- Government Accounting Office, Expert Panel, Review of FDA Seafood HACCP program, 2003.
- Executive Committee & Treasurer, Pacific Fisheries Technologists, 1997- 1998, 1998- 2001; Executive Committee, 2003- 2005.
- Shellfish Advisory Committee, Washington State Department of Health, 1996 – 2003.
- Washington State Department of Agriculture, Advisory Committee, 1997 – 1999, 2017 (foods and edibles).
- Administrative Law Subcommittee, Washington State Department of Health, 1996 – 1997.
- Advisor, Northwest Consumer Food Safety Council, 1993 – 1999.
- Scholarship committee, Puget Sound Institute of Food Technologists, 1990 – 1998.
- Regional Advisory Council, Sheldon Jackson College, 1997 – 2000.
- WAFDO-Seafood Alliance; food safety and seafood HACCP training, 1995 – 1998.
- Better Process Control School, Instructor, 1989 – 1998, 2011 – present including first programs in Pakistan, Sri Lanka and Korea
- Seafood HACCP Training, over 250 classes including first course in nation on the new FDA regulations (Dec. 17, 1995). Food safety classes provided in: US/Canada, Afghanistan, Armenia, Azerbaijan, Bangladesh, Cambodia, China, Georgia, Korea, Pakistan, Russia, Sri Lanka, Tunisia, Thailand and UK including train-the-trainer classes. Related classes on GMPS, sanitation and marketing. FSMA compliance training in USA, China, Korea, Chile, Pakistan, Sri Lanka, Tunisia and UAE.

SCHOLARSHIP ACCOMPLISHMENTS: Included in a separate document

Publications: 270 publications in the peer reviewed literature. One book published, one pending. Number of citations: 8100 (Google Scholar) H factor: 49.

Patents: 2 issued, 5 invention disclosures (WSU). Most current 2017. Ziyiana et al. 00057 Developing a sensor to monitor milk shelf life

Grants and Contracts Awarded:

I have received over \$12M in funding during my career. Current funded grants are listed here:

PAR 16-137 State and Territory Cooperative Agreement to Enhanced Produce Safety in Preparation of Implementation of FDS Rule: Standards for the Growing, Harvesting and, Packing and Holding of Produce for Human Consumption (U18). \$1,060,837 to UI via State of Idaho from FDA July 2016 – June 2021. UI.

NIFA Western Training, Education, Extension Outreach and Technical Assistance Center to Enhance Food Safety. OSU Prime contractor \$1.2 M total - to UI \$215,000 committed to date

\$143,286 Sept 1 2015-April 30, 2018. Follow on grant (\$625k)

Specialty Crop Block Grant. WSDA. Implementation of the Food Safety Modernization Act. G. Ganjyal, B. Rasco, S. Smith. Food safety training and education for small producers and valued added food processors. \$149,000 Funded 11/2/2016. WSU.

Kim, J. H. Food Safety Modernization Act related food safety education and outreach for hard-to-reach audiences in the Pacific Northwest and Alaska using current land-grant university extension system. \$525,000 USDA/NIFA University of Idaho. I provided significant support writing this grant July 2016 – June 2020. UI.

Rasco, et al. 2018. Investigating the Feasibility of Rearing Sablefish (black cod *Anoplopoma fimbria*) in SIFT (Super Intensive Farming Technology) Stacked Recirculating Aquaculture Systems. NOAA Saltonstall-Kennedy \$350,000.

Smith and Rasco, 2019. Risk Assessment and Fate of *Listeria* in Hydroponically Grown Produce Washington Department of Agriculture \$ 250,000.

Ovissipour, Rasco et al. 2018 Marine Debris – Microplastics and Oysters. NOAA. \$300,000

ScanX Contract. ScanX Corp. \$33,592 Oct 2016 – June 2018. WSU.