

CURRICULUM VITAE

Qin Wang

Notarization. I have read the following and certify that this curriculum vitae is a current and accurate statement of my professional record.

Signature 

Date: 01-26-2012

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1. Personal Information

Name: Qin Wang

Department: Nutrition and Food Science

Professional address: 3301 Marie Mount Hall, College Park, MD 20742

Current Rank: Assistant Professor, Food Science/Chemistry and Food Nanotechnology

Appointment to Current Rank: August 2008 (University of Maryland)

Type of appointment:

Teaching: 50%

Research: 50%

Extension: 0%

Educational Background:

<u>Degree</u>	<u>Year</u>	<u>Institution</u>
B.S.	1992	Nanjing University, Environmental Chemistry
M.S.	1997	Nanjing University, Environmental Chemistry Research area: bioavailability of Rare Earth Element
Ph.D	2004	University of Illinois at Urbana-Champaign, Food Science Research area: protein-lipid interaction in zein films

Employment Background:

2008-present	Assistant Professor, Department of Nutrition and Food Science, University of Maryland, College Park, MD 20742 <u>Research Area:</u> food chemistry, biopolymer biophysics, antimicrobial packaging, food nanotechnology
2007 – 2008	Post-doctoral Fellow, PhilipMorris USA, Richmond, VA 23219 <u>Research Area:</u> research and product development
2004 – 2007	Post-doctoral Research Associate, Department of Food Science and Human Nutrition, University of Illinois, Urbana, IL 61801

	<u>Research Area</u> : food chemistry and food packaging
1998 – 2004	Graduate Research Associate, Department of Food Science, University of Illinois, Urbana, IL 61801
	<u>Research Area</u> : protein chemistry and food packaging
1994 - 1997	Research Assistant, Department of Environmental Science and Engineering, Nanjing, P.R. China
	<u>Research Area</u> : environmental chemistry

2. Research, Scholarly, and Creative Activities

a. Books.

i. Books edited

Padua, G. W., **Wang, Q.**, (ed.). **Methods in Food and Bioproducts Nanotechnology Research**; Blackwell Publishing, IA 50014, submitted in 2011

ii. Chapters in books

1. G. W. Padua, **Q. Wang**. "Controlled self-organization of zein nanostructures for encapsulation of food ingredients", in ACS Symposium on Micro/Nano-Encapsulation of Active Food Ingredients, Eds. Q. Huang, P. Given, M. Qian, ACS symposium 1007, Oxford University Press, Washington DC **2009**. pp.143-157.
2. G.W. Padua, **Q. Wang**. "Formation and Properties of Corn Zein Films and Coatings" in Protein-Based Films and Coatings, Ed. A. Gennadios, CRC Press, Florida **2002**. pp 43-67.

b. Articles in Refereed Journals (Underline, corresponding; *, undergraduate, graduate or postdoctoral fellow from Dr. Wang's Lab)

1. Y. Luo*, Z. Teng*, **Q. Wang**. "Development of zein nanoparticles coated with carboxymethyl chitosan for encapsulation and controlled release of vitamin D3". *J of Agricultural and Food Chemistry* 2011, in press, DOI: 10.1021/jf204194z.
2. L. Liao*, Y. Luo*, **Q. Wang**. "Preparation and characterization of succinic acid deamidated wheat gluten microspheres for encapsulation of fish oil". *Colloids and Surfaces B: Biointerfaces* 2011, in press, DOI: 10.1016/j.colsurfb.2011.12.003.
3. Z. Teng*, **Q. Wang**. "Extraction, identification, and characterization of water-insoluble protein from tobacco biomass". *J. of the Sci. of Food and Agri.* 2011, in press, DOI: 10.1002/jsfa.4708.

4. L. Liao*, **Q. Wang**, M. Zhao. "Investigation of the susceptibility of acid-deamidated wheat gluten to in vitro enzymatic hydrolysis using Raman spectra and free amino acid analysis" *J. of the Sci. of Food and Agri.* 2011, Accepted.
5. L. Liao*, **Q. Wang**, M. Zhao. "Functional, conformational and topographical changes of succinic acid deamidated wheat gluten upon freeze- and spray-drying: a comparative study". *LWT-Food Science and Technology* 2011, Accepted.
6. Y. Luo*, Z. Xiao*, **Q. Wang**, B. Li, B. Li. "Antioxidant Activities and Inhibitory Effects of *Auricularia Auricular* and Its Functional Formula Diet Against Vascular Smooth Muscle Cell in vitro". *Food and Nutrition Science*, 2011, in press, DOI: 10.4236/fns.2011.24005.
7. B. Zhang*, Y. Luo, **Q. Wang**. "Development of silver/ α -lactalbumin nanocomposites: a new approach to reduce silver toxicity". *International J. of Antimicrobial Agents*, 2011, 38, 502-509.
8. Z. Xiao*, Y. Luo*, Y. Luo, **Q. Wang**. "Combined effect of sodium chlorite dip treatment and chitosan coatings on quality of fresh-cut An'jou pears". *Postharvest Biology and Technology* 2011, 62, 319-326.
9. Y. Luo*, B. Zhang*, M. Whent, L. Yu, **Q. Wang**. "Preparation, characterization of zein/chitosan complex for encapsulation of α -tocopherol and in vitro controlled release study". *Colloids and Surfaces B: Biointerfaces* 2011, 85, 145-152.
10. S. Zhang, Y. Luo*, H. Zeng, **Q. Wang**, F. Tian, J. Song, W.-H. Cheng. "Encapsulation of selenium in chitosan nanoparticles improves selenium availability and protects cells from selenium-induced DNA damage response". *J. Nutritional and Biochemistry* 2011, 22, 1137-1142.
11. B. Zhang*, Y. Luo*, **Q. Wang**. "Effect of Acid and Base Treatments on Structural, Rheological, and Antioxidant Properties of Alpha-Zein" *Food Chemistry* 2011, 124, 210-220.
12. Y. Li, Y. Luo*, G. Chen, Z. Xiao*, **Q. Wang**, L. Zhao, B. Ji. "Comparison of protective effects between oat β -glucan and phenol-rich extracts in hyperlipidemic ICR mice" *J. of Food and Drug Analysis* 2011, 19: 49-57
13. L. Liao*, M. Zhao, **Q. Wang**, J. Ren, H. Zhao, C. Cui. "Study on deamidation of wheat gluten deamidated with citric acid" in Chinese, *J. of Jiangsu University*, 2011, 32, 1-7.
14. B. Zhang*, Y. Luo*, **Q. Wang**. "Development of Silver-Zein Composites as a Promising Antimicrobial Agent" *Biomacromolecules* 2010, 11, 2366-2375.
15. Y. Luo*, B. Zhang*, W.-H. Cheng, **Q. Wang**. "Preparation, Characterization and Evaluation of Selenite-Loaded Chitosan/TPP Nanoparticles with or without Zein Coating" *Carbohydrate Polymers*, 2010, 82, 942-951.

16. W. Liu, Z. Xie, B. Zhang*, **Q. Wang**, W. Yao, X. Gao, L. Yu. "Effects of Hydroxypropylation on the Functional Properties of Psyllium" *J of Agricultural and Food Chemistry*, 2010, 58, 1615-1621.
17. W. Liu, B. Zhang*, **Q. Wang**, X. Gao, W. Yao, L. Yu. "Effects of Sulfation on the Physicochemical and Functional Properties of Psyllium" *J of Agricultural and Food Chemistry*, 2010, 58, 172–179.
18. Z. Cheng, J. Blackford, **Q. Wang**, L. Yu. "Acid Treatment to Improve Psyllium Functionality" *J of Functional Foods*, 2009, 1, 44-49.
19. **Q. Wang**, L. Yin, G. W. Padua. "Effect of Hydrophilic and Lipophilic Compounds on Zein Micro-Structures", *Food Biophysics*, 2008, 3, 174-181.
20. **Q. Wang**, W. Xian, S. Li, C. Liu, G. W. Padua. "Topography and Biocompatibility of Patterned Hydrophilic/Hydrophobic Zein Layers" *Acta Biomaterialia*, 2008, 4, 844-851.
21. Y. Wang, **Q. Wang**, W. E. Artz, G. W. Padua. "Fourier Transform Infrared Spectra of Drying Oils Treated by Irradiation" *J. Agriculture and Food Chemistry*, 2008, 56, 3043-3048.
22. S. Li, T. Dellinger, **Q. Wang**, S. Szegedi C. Liu. "Pneumatic Actuated Elastomeric Device for Nanoscale Surface Patterning" *Applied Physics Letters*, 2007, 91, 023109.
23. **Q. Wang**, Q. Wang, X. Wang, G.W. Padua. "Zein Dynamic Adsorption to Carboxylic and Alkyl Coated Surfaces" *J of Agricultural and Food Chemistry*, 2006, 54, 517-522.
24. **Q. Wang**, G.W. Padua. "Properties of Zein Films Coated with Drying Oils" *J of Agricultural and Food Chemistry*, 2005, 53, 3444-3448.
25. **Q. Wang**, J-F Wang, P. H. Geil, G.W. Padua. "Zein Adsorption to Hydrophilic and Hydrophobic Surfaces Investigated by Surface Plasmon Resonance" *Biomacromolecules*, 2004, 5, 1356-1361.
26. **Q. Wang**, P. Geil, G.W. Padua. "Role of Hydrophilic and Hydrophobic Interactions in Structure Development of Zein Films" *J of Polymers and the Environment*, 2004, 12, 197-202.
27. **Q. Wang**, A. R. Crofts, G. W. Padua. "Protein-Lipid Interactions in Zein Films Investigated by Surface Plasmon Resonance" *J of Agricultural and Food Chemistry*, 2003, 51, 7439-7444.
28. A.M. Rakotonirainy, **Q. Wang**, G.W. Padua. "Behavior of Zein Films as Modified Atmosphere Packaging for Fresh Broccoli" *J of Food Science*, 2001, 66(8): 1108-1111.

29. H. Sun, X. Wang, **Q. Wang**, H. Wang, Y. Chen, L. Dai, M. Cao. "The Effect of Chemical Species on Bioaccumulation of Rare Earth Elements in Rice Grown in Nutrient Solution" *Toxicological and Environmental Chemistry*, 1999, 69: 75-85.
30. H. Sun, X. Wang, **Q. Wang**, L. Wang, Y. Chen, L. Dai, Z. Li, M. Cao. "The Species of Spiked Rare Earth Elements in Sediment and Potential Bioavailability to Algae (*Chlorella Vulgarize Beijerinck*)" *Chemosphere*, 1998, 36(2): 329-337.
31. H. Sun, X. Wang, **Q. Wang**, H. Wang, L. Wang, Y. Chen, L. Dai, M. Cao. "The Effect of Chemical Species on Bioaccumulation of Rare Earth Elements in Wheat Grown in Nutrient Solution" *Chemosphere*, 1997, 35(8): 1699-1707.
32. **Q. Wang**, H. Sun, X. Wang, L. Wang. "The Species of Spiked Rare Earth Element La and Its Bioavailability" in Chinese. *Environmental Chemistry*, 1997, 16(2): 109.
33. **Q. Wang**, H. Sun, H. Wang, X. Wang. "Bioaccumulation of Two Speciations of Rare Earth Elements in Wheat Seedlings" in Chinese. *J of Nanjing University*, 1997, 33(4):70.
34. **Q. Wang**, H. Sun, H. Wang, X. Wang. "Bioaccumulation of Two Speciations of Rare Earth Elements in Rice Seedlings" in Chinese. *Environmental Science*, 1997, 18(6):56.

c. Talks, Abstracts, and Other Professional Papers Presented.

i. Refereed talks and abstracts

1. **Q. Wang**, Z. Xiao*, Y. Luo. "Sodium chlorite treatment with and without chitosan coatings on fresh-cut pears". 2nd *Environment, Food, and Public Health International Conference*, Kunming, China, July, 2011
2. B. Zhang*, **Q. Wang**. "The preparation of silver/alpha-lactalbumin composites and their applications as an antiseptic agent with enhanced biocompatibility and silver retaining capabilities". *IFT Annual Meeting*, New Orleans, June 2011.
3. Y. Luo*, **Q. Wang**. "Preparation and characterization of zein/chitosan nanocomplex for encapsulation of α -tocopherol". *IFT Annual Meeting*, New Orleans, June 2011.
4. Z. Teng*, **Q. Wang**. "Extraction and Identification of the Water-insoluble Proteins from Tobacco Biomass". *IFT Annual Meeting*, New Orleans, June 2011.
5. L. Liao*, Y. Luo*, **Q. Wang**. "Preparation, characterization, and evaluation of fish oil nano/micro-particles encapsulated by deamidated wheat gluten with or without chitosan coatings". *IFT Annual Meeting*, New Orleans, June 2011.
6. Z. Xiao*, **Q. Wang**. "Combined effects of sodium chlorite dip treatment and edible coatings on the quality of fresh-cut d'Anjou pears". *IFT Annual Meeting*, New Orleans, June 2011.

7. Y. Luo*, B. Zhang*, W-H. Cheng, **Q. Wang**. "Preparation, Characterization and Evaluation of Selenite-Loaded Chitosan/TPP Nanoparticles" *IFT Annual Meeting*, Chicago, July 2010.
8. **Q. Wang**, B. Zhang*. "Zein self-assembled structures affected by pH and surfactants" *American Chemical Society Annual Meeting*, Washington DC, August, 2009
9. **Q. Wang**, B. Zhang*. "Nanotechnology and Food" *Environment, Food, and Public Health International Conference*, Xi'an, China, June, 2009
10. B. Zhang*, **Q. Wang**. "Zein Self-Assemble Structures Affected by pH, Surfactants, and Solvent Type" *IFT Annual Meeting*, Anaheim, June, 2009
11. **Q. Wang**, B. Zhang*. "Zein Self-Assembled Nano- and Micro-Scale Structures" *CoFE Annual Meeting*, Columbus, April, 2009
12. **Q. Wang**, L. Yin, G. W. Padua. "Zein Controlled Micro- and Nano- Structures for Food Applications" *AICHE Annual Meetings*, Salt Lake City, November, 2007
13. **Q. Wang**, W. Xian, S. Li, C. Liu, G.W. Padua. "Cell Growth on Micropatterned Zein Surfaces" oral presentation in *AICHE Annual Meeting*, San Francisco, November, 2006
14. **Q. Wang**, C. Liu, A.R. Crofts, G.W. Padua. "Zein Self-Assembled Nanoscale Structures" poster in *IFT Annual Meeting*, Orlando, June, 2006
15. **Q. Wang**, C. Liu, A.R. Crofts, G.W. Padua. "Zein Self-Assembly on Nanopatterned Surfaces" poster in *Nanotechnology Industry Workshop*, University of Illinois at Urbana-Champaign, May, 2006
16. **Q. Wang**, C. Liu, A.R. Crofts, G.W. Padua. "Nanofabricated Zein Biomaterials" poster in *Nanotechnology Industry Workshop*, University of Illinois at Urbana-Champaign, May, 2005
17. **Q. Wang**, G.W. Padua. "Effect of Surface Polarity on Zein Adsorption at a Solid-Liquid Interface" oral presentation in *IFT Annual Meeting*, Las Vegas, July, 2004
18. **Q. Wang**, P. Geil, G.W. Padua. "Structural Development in Zein-Oleate Sheets" oral presentation in *11th Annual Meeting of BioEnvironmental Polymer Society*, Denver, August 10-13, 2003
19. **Q. Wang**, G.W. Padua. "Protein-Lipid Interactions in Zein Films Investigated by Surface Plasmon Resonance" technical poster in *IFT Annual Meeting*, Chicago, July, 2003
20. **Q. Wang**, G.W. Padua. "Structure of Zein Layers at Protein-Lipid Interfaces" poster in *Nanotechnology Industry Workshop*, University of Illinois at Urbana-Champaign, May, 2003

21. **Q. Wang**, G.W. Padua. "Effect of Ionizing Radiation on Tensile Properties of Zein Films" poster in *IFT Annual Meeting*, New Orleans, June, 2001, pp181

22. G.W. Padua, A. Rakotirainy, and **Q. Wang** 2000. Zein-based biodegradable packaging for frozen foods. *Proceedings of the Food Biopack Conference*. Copenhagen, Denmark. August 27-29, 2000. pp.84 – 88.

ii. Articles in conference proceedings

1. **Q. Wang**, L. Yin, G. W. Padua. "Zein Controlled Micro- and Nano- Structures for Food Applications" AICHE Proceedings, Salt Lake City, November, 2007

2. **Q. Wang**, W. Xian, S. Li, C. Liu, G.W. Padua. "Cell Growth on Micropatterned Zein Surfaces" oral presentation in AICHE Proceedings, San Francisco, November, 2006

3. G.W. Padua, A.M. Rakotirainy, **Q. Wang**. "Zein-based Biodegradable Packaging for Frozen Foods" in Proceedings of the Food Biopack Conference, Copenhagen, Denmark, Pp84-88, Aug. 27-29, 2000.

4. X. Wang, H. Sun, **Q. Wang**, H. Wang. "The Distribution of Different Species of Rare Earth Elements in Plants and Cells" *The Second Sina-Dutch Workshop on the Environmental Behavior and Ecotoxicology of Rare Earth Elements and Heavy Metals*, Holland, 1997.

d. Patents and Disclosures

1. L. Yu, W. Liu, Z. Xie, **Q. Wang**, B. Zhang*. Method to Prepare Sulfated Psyllium for Use to Reduce The Risk of Chronic Human Diseases. Provisional US patent application, No. 61/230,929. Filed in 2009.

2. **Q. Wang**, B. Zhang*. Development of Silver- α -Lactalbumin Composites as a Promising Silver-Based Antiseptics. Provisional US patent application, No. 61/443,777. Filed in 2011.

3. **Q. Wang**, Y. Luo*. Encapsulation of Vitamin D3 in Zein/Carboxymethyl Chitosan Complex Nanoparticles. Provisional US patent application, No. 61/578094. Filed in 2011.

e. Contracts and Grants.

Grants submitted (denotes limited submission)*

2008, July	*\$300,000	2009 Searle Scholars Program "Mechanism study and development of biological polymer (zein) to viable tissue scaffold" Principal Investigator
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2008, November	\$ 415,331	National Science Foundation (NSF) “Self-assembled zein structures and their phase transformations” Principal Investigator, Co-PI: G. Phillip, G. Padua
2009, January	*\$402,831	Partnerships for International Research and Education (PIRE) from NSF “Environmental toxicity assessment of engineered nanomaterials used in food industry in ecosystem” Principal Investigator; Co-PI: X. Wang
2009, January	\$49,892	Kentucky Science and Engineering Foundation “Microencapsulation of double stranded RNA, a lethal combination for subterranean termites” Co-Principal Investigator; PI: X. Zhou
2009, February	\$131,813	North-East Sun Grant “Water resistant coatings for zein and other bio-based films: Fast curing linseed and tung oils” Principal Investigator
2009, April	\$139,985	“Improvement of storage stabilities and delivery efficiency of two synergetic antioxidant compounds using microencapsules of cellulose and its derivatives, and zein” Co- Principal Investigator; PI: C. Wu
2009, June	\$411,234	“Nanodelivery of selenium compounds by chitosan and gold: improved efficiency and targeted delivery” Co- Principal Investigator; PI: W.-H. Cheng
2009, December	*\$7,700	“Comparison of stability and safety properties of beef from grass-fed or grain-fed sources in controlled storage conditions” Principal Investigator
2010, February	\$160,910	North-East Sun Grant “Water resistant coatings for zein and other bio-based films: Fast curing linseed and tung oils” Principal Investigator
2010, May	\$69,068	Seed Grant, AFRI, USDA “Development of antimicrobial nanoparticles for construction of novel coatings and films to enhance food safety for ready-to-eat meat products and fresh produce” Co- Principal Investigator; PI: C. Wu

2010, June	\$ 4,954,447	“Use of Alternative Technologies to Control Foodborne Pathogens in Dried Food” Co-Principal Investigator; PI: R. Buchanan
2010, September	\$100,000	SBIR, AFRI, USDA “Creating a superior antimicrobial food coating” Co-Principal Investigator; PI: Global Protein Product
2010, September	\$101,460	“Interactions between Metal Oxides and the Impact on the Redox Transformation of Organic Contaminants” Co-Principal Investigator; PI: H. Zhang
2011, May	\$354,166	“Enhancement of delivery efficacy and bioactive function of Vitamin D and genistein using novel polymer complexation techniques” Principal Investigator, Co-PI: C. Wu, S. Sang
<i>Grants awarded</i>		
2010, January	\$18,000	Maryland Grain Producers Utilization Board “Enhancing MD-Grown Soft Wheat Consumption for Health Promotion and Disease Prevention” Co-Principal Investigator; PI: L. Yu
2010, July	\$7,000	NewAgriculture Inc. “Recovery of insoluble cell wall proteins from tobacco leaf biomass” Principal Investigator
2010, August	\$121,173	Cooperative Agreement with USDA-BARC “Integrated Approaches to Produce Safety and Quality” Principal Investigator
2010, September	\$30,000	MAES Competitive Grants Program (CGP), AGNR “Enhancing the value-added utilization of Maryland grown blue crab and corn: development of micro-capsules from chitosan and corn zein for improved antioxidant property and storage stability of two synergistic antioxidant compounds” Principal Investigator
2010, December	\$88,261	Cooperative Agreement with USDA-BARC “Evaluating the impact of fresh-cut produce on the operation of food quality and safety” Principal Investigator

2011, May	\$20,000	NSF ADVANE program Seed Grant “Developing value-added novel nanomaterials from chitosan and soy protein for targeted delivery and controlled release of bioactives” Principal investigator, Co-PI: L. Yu, T. Wu
2011, December	\$4,339.64	New Leaf Food Safety Solutions Industry Gift

f. Fellowships, Prizes, and Awards.

Awards obtained by Qin Wang

2010	Summer Research and Support Award, UMD, \$9,000
2003-2004	Larson Academic Fellowship, UIUC, \$3,000
2002-2003	Ruth A. Wardall Fellowship, UIUC, \$2,000
2001-2002	Strunk Fellowship, UIUC, \$2,000
2000-2001	Dean Memorial Food Science Fellowship, UIUC, \$1,500

Awards obtained by Qin Wang’s students

2011	Boce Zhang, 2 nd place, Poster section in Food Packaging Division at annual IFT meeting in New Orleans (PhD student)
2011	Boce Zhang, 1 st place in Chinese American Food Society (CAFS) Graduate Student Scholarship (PhD student)
2011	Yangchao Luo, Summer Research Fellowship, AGNR, University of Maryland, College Park, MD 20742 (PhD student)
2010	Yunpeng Wu, Dean’s Fellowship, AGNR, University of Maryland, College Park, MD 20742 (PhD student)
2010	Zhenlei Xiao, Dean’s Fellowship, AGNR, University of Maryland, College Park, MD 20742 (PhD student)
2010	Zi Teng, Dean’s Fellowship, AGNR, University of Maryland, College Park, MD 20742 (PhD student)
2010	Zi Teng, Facchina Graduate Fellowship, Facchina Fund (PhD student)

- g. Editorships, Editorial Boards, and Reviewing Activities for Journals and Other Learned Publications.

Reviewer for following journals:

Journal of Agricultural and Food Chemistry

Journal of Food Science

Food Chemistry

Biomacromolecules

Carbohydrate Polymers

Lebensmittel-Wissenschaft und-Technologie

Journal of Food Processing and Preservation

Natural Product Communications

Food Research International

Molecules

Journal of Physical Chemistry

Drug Development and Industrial Pharmacy

Biotechnology and Bioprocess Engineering

3. Teaching, Mentoring, and Advising

- a. Courses taught.

NFSC 386 Experiential Learning (3-6 credits)

Spring 2011, 1 student

Fall 2011, 1 student

NFSC 422 Food Research and Product Development (3 credits, with lab)

Fall 2009, 10 students

Fall 2010, 11 students

Fall 2011, 14 students

NFSC 679P Food Polymer Science (3 credits)

Spring 2010, 7 students

Spring 2011, 7 students

NFSC 699 Problems in Nutrition and Food Science (Independent study)

Fall 2008, 1 student
Fall 2009, 1 student
Summer 2010, 1 student
Fall 2010, 4 students
Spring 2011, 2 students
Fall 2011, 3 students

NFSC 898 Doctoral (Pre)Dissertation Research with weekly group/individual research meetings

Fall 2008, 1 student
Spring 2009, 1 student
Fall 2009, 2 students
Spring 2010, 2 students
Fall 2010, 2 students
Spring 2011, 2 students
Fall 2011, 1 student

NFSC 899 Doctoral Dissertation Research with weekly group/individual research meetings

Fall 2011, 1 student

b. Course or Curriculum Development.

NFSC 422 Food Research Product Development (3 credits)

Fall 2009

I redesigned the course syllabus, revised the course content, and developed relevant course materials.

NFSC 679P Food Polymer Science (3 credits)

Spring 2010

This is a brand new course for graduate students in Food Science program. I developed the course curriculum and course materials, and prepared study guide. Students are required to conduct literature search and write a technical paper on a selected food polymer, and present their findings to the class.

c. Advising: Research Direction.

i. Doctoral.

Principal Research Advisor

2008- Boce Zhang, Food Science, University of Maryland
Dissertation: Nanostructural formation from food proteins and their applications

- 2009- Yangchao Luo, Food Science, University of Maryland
Dissertation: Nanoencapsulation formed by food proteins and carbohydrates
- 2010- Zhenlei Xiao, Food Science, University of Maryland
Dissertation: Development of antimicrobial and antibrowning agents from natural food polymers for fresh cut produces
- 2010- Yunpeng Wu, Food Science, University of Maryland
Dissertation: Mechanism of natural antimicrobial compounds extracted from plants
- 2010- Zi Teng, Food Science, University of Maryland
Dissertation: Food protein modification by enzymatic and chemical methods for better physical and chemical properties

Member of Dissertation Committee

- 2008- Margaret Slavin, Major in Food Science, University of Maryland
Dissertation: Value-added factors in soybeans
- 2008-2009 Ansu Cherian, Major in Food Science, University of Maryland
Thesis: Feasibility of soluble leaf proteins as carrier for vitamin E
- 2008- Patrick Williams, Major in Food Science, University of Maryland
Dissertation: Characterization of physicochemical properties of xanthan/curdlan hydrogel complex for applications in frozen food products
- 2008- Pavan Soma, Major in Food Science, University of Maryland
Dissertation: Xanthan chitosan polyionic hydrogels for microencapsulation of probiotics
- 2009-2010 Su Zhang, Major in Nutrition, University of Maryland
Thesis: Roles of selenium on genomics maintenance in colon cancer and aging brain
- 2010- Wenting Ju, Major in Food Science, University of Maryland
Dissertation: Prevalence and Characterization Shiga toxin-producing Escherichia Coli in retail ground meat
- 2010- Guojie Cao, Major in Food Science, University of Maryland
Dissertation:

ii. Post-doctoral research assistant

2011- Cangliang Shen
Project title: Integrated approaches to produce safety and quality

2011- Bin Zhou
Project title: Evaluating the impact of fresh-cut produce wash operation on food quality and safety

d. Advising: Other than Research Direction.

- i. Undergraduate.
about 15-20 of Food Science majors per semester

4. Service

a. Professional

Member in following professional Societies:

Institute of Food Technologists
American Chemical Society

b. Campus.

- i. Departmental (University of Maryland only).

Department Food Science Graduate Student Admission Committee
Member, 2008-2011

Librarian Representative
Member, 2011-

Curriculum Committee for Food Science
Member, 2011-

Scholarship and Awards Committee
Member, 2011-

- ii. College.

- iii. University.

Student Honor Boards
Member, 2010-

c. Community, State, National.

i. Proposal review

Alberta Innovates - Bio Solutions, Alberta, Canada (3 proposals)

Binational Agricultural Research and Development (BARD)-ISUS, (5 proposals)