

# CURRICULUM VITAE

Wen-Hsing Cheng

October 22, 2013

## 1. Personal Information

Wen-Hsing Cheng  
Associate Professor  
Department of Food, Nutrition and Health Promotion  
Mississippi State University,  
Mississippi State, MS 39762, USA  
Tel: +1.662.325.3200  
E-mail: [whcheng.umcp@gmail.com](mailto:whcheng.umcp@gmail.com)

### Education

2001 Ph.D. Molecular Nutrition, Cornell University, Ithaca, New York  
1997 M.S. Animal Nutrition, Cornell University, Ithaca, New York  
1993 B.S. Animal Science, National Taiwan University, Taipei, Taiwan

### Brief Chronology of Employment

08.2013-present Associate Professor  
Department of Food, Nutrition and Health Promotion  
Mississippi State University

2007-2013 Assistant Professor of Nutrigenomics  
Department of Nutrition and Food Science  
University of Maryland, College Park

2005-2007 Research Fellow  
Laboratory of Molecular Gerontology  
National Institute on Aging, Baltimore, Maryland

2001-2005 Postdoctoral Fellow  
Laboratory of Molecular Gerontology  
National Institute on Aging, Baltimore, Maryland

1996-2001 Graduate Research Assistant  
Cornell University, Ithaca, New York

## 2. Research, Scholarly, and Creative Activities (Underline, corresponding author; \*, undergraduate, graduate or postdoctoral fellow from the Cheng Lab)

### Summary:

- 60 accepted articles in book chapters, research articles and research comments.
- 44 invited talks

- 46 poster presentations

a. **Chapters in Books.**

1. **Cheng, W.-H.**, Muftuoglu, M and Wu, R.T.Y. Selenium and epigenetic effects on histone marks and chromatin. Frederick E Dormann and Emily Ho (Eds). In: *Role of Nutrition and Metabolism on Epigenetic regulation*”, Taylor and Francis Group, 2014 (submitted).
2. Porres, J.M. and **Cheng, W.-H.** Legumes in preventive dermatology. Ronald R. Watson and Sherma Zibadi (Eds). In: *Bioactive Dietary Factors and Plant Extracts in Preventative Dermatology*, Oxford, London, Elsevier. 2013, page 421-432, ISBN: 978-1-62703-167-7.
3. Wu, M.\*, Porres, J.M. and **Cheng, W.-H.** Chapter 18: Selenium, selenoprotein and age-related disorders. Ronald R. Watson and Victor R. Preedy (Eds). In: *Bioactive Foods as Dietary Intervention for the Aging Population*, Oxford, London, Elsevier. 2013, page 227-239, ISBN: 978-0-12-397155-5
4. **Porres, J.M.**, Wu, M.\*, and **Cheng, W.-H.** Chapter 24: Legumes, genome maintenance and optimal health. Ronald R. Watson and Victor R. Preedy (Eds). In: *Bioactive Foods as Dietary Intervention for the Aging Population*, Oxford, London, Elsevier. 2013, page 321-334. ISBN: 978-0-12-397155-5
5. Rocourt, C\*. Yu, Y\*. and **Cheng, W.-H.** Epilepsy: selenium and aging. Zaid Afawi (Eds). In: *Clinical and genetic aspects of Epilepsy*, InTech, Open Access Publisher. ISBN: 978-953-307-700-0. pp.75-92, 2011.
6. **Cheng, W.-H.**, Ahn, B. and Bohr, V.A. Linking human RecQ helicases to DNA damage response and aging. K.K. Khanna, Y. Shiloh (Eds.). In: *The DNA Damage Response: Implications on Cancer Formation and Treatment*, DOI 10.1007/978-90-481-2561-6\_15. Springer B.V. pp. 331-347, 2009.
7. Lei, X. and **Cheng, W.-H.** New roles of glutathione peroxidase-1 in oxidative stress and diabetes. Dolph L. Hatfield (Eds). In: *Selenium, its molecular biology and role in human health*, New York, NY, Springer-Verlag. pp. 173-182, 2006.
8. Opresko, P.L., Harrigan, J.A., **Cheng, W.-H.**, Brosh, Jr., R.M. and Bohr, V.A. Proposed biological functions for the Werner syndrome protein in DNA metabolism. Michel Lebel (Eds) In: *Molecular Mechanisms of Werner’s Syndrome*, Georgetown, TX, Landes Biosciences. pp. 1-10, 2004.

b. **Articles in Refereed Journals.**

i. Research articles.

1. Rocourt, C.\*, Wu, M.\*, Chen, B.P.C. and **Cheng, W.-H.** The catalytic subunit of DNA-dependent protein kinase is downstream of ATM and feeds forward oxidative stress in selenium-induced senescence response. *Journal of Nutritional Biochemistry*, 24: 781-787, 2013.
2. Huawei Zeng, **Wen-Hsing Cheng**, and LuAnn K. Jackson. Methylselenol, a selenium metabolite, modulates p53 pathway and inhibits the growth of colon cancer xenografts in Balb/c mice. *Journal of Nutritional Biochemistry*. 24: 776-780, 2013.
3. Holmstrom, A.\*, Wu, R.T.Y.\*, Zeng, H., Lei, K.Y. and **Cheng, W.-H.** Nutritional and

- supranutritional levels of selenate differentially suppress prostate tumor growth in adult but not young nude mice. *Journal of Nutritional Biochemistry*. 23:1086-1091, 2012
4. Yu, Y\*, Soma, P.K., Lo, Y.M., Wei, C.-I., and **Cheng, W.-H.** Effect of nicotine-free tobacco extract on DNA damage responses in cancerous and non-cancerous cells. *Journal of Carcinogenesis & Mutagenesis* S3:002, 2012 (doi:10.4172/2157-2518.S3-002).
  5. **Cheng, W.-H.**, Wu, R.T.Y.\*, Wu, M.\*, Rocourt, C.\*, Carrillo, J. A., Song, J., Bohr, C.T.\*, and Tzeng, T\*. Werner syndrome protein ablation sensitizes U-2 OS osteosarcoma cells to selenium-induced DNA damage response and necrotic death. *Biochem. Biophys. Res. Commun.* 420:24-28, 2012
  6. **Cheng, W.-H.**, Holmstrom, A.\*, Li, X., Wu, R.T.Y.\*, Zeng, H., and **Xiao, Z.** Effect of dietary selenium and cancer cell xenograft on peripheral T and B lymphocyte in nude mice. *Biological Trace Element Research*. 146:230-235, 2012.
  7. Wu, M.\*, Wu, R.T.Y.\*, Wang, T.T.Y., and **Cheng, W.-H.** Role for p53 in selenium-induced senescence. *Journal of Agriculture and Food Chemistry*. 59:11882-11887, 2011.
  8. Zhang, S\*, Luo, Y., Zeng, H., Wang, Q., Tian, F., Song, J., and **Cheng, W.-H.** Encapsulation of selenium in chitosan nanoparticles improves selenium availability and protects cells from selenium-induced DNA damage response. *Journal of Nutritional Biochemistry*. 22:1137-1142, 2011.
  9. Zeng, H., Lin, Y., **Cheng, W.-H.** and Uthus, E.O. Dietary selenomethionine intake increases exon-specific DNA methylation of p53 gene in rat liver and colon mucosa. *Journal of Nutrition*. 141:1464-1468, 2011.
  10. Zeng, H., Jackson, M.I., **Cheng, W.-H.**, and Combs, G.F., Jr. Chemical form of selenium affects its uptake, transport and glutathione peroxidase activity in the human intestinal Caco-2 cell model. *Biological Trace Element Research*. 143:1209-1218, 2011.
  11. Qi, Y.\*, Schoene, N.W., Lartey, F.\*, and **Cheng, W.-H.** Selenium compounds activate ATM-dependent DNA damage response via the mismatch repair protein hMLH1 in colorectal cancer cells. *Journal of Biological Chemistry*. 285: 33010-33017, 2010.
  12. Luo, Y., Zhang, B., **Cheng, W.-H.**, and Wang, Q. Preparation, characterization and evaluation of selenite-loaded chitosan/TPP nanoparticles with or without zein coating *Carbohydrate Polymers*. *Carbohydrate Polymers*, 82: 942-951, 2010.
  13. Wu, M.\*, Kang, M.\*, Schoene, N.W., and **Cheng, W.-H.** Selenium compounds activate early barriers of tumorigenesis. *Journal of Biological Chemistry*. 285:12055-12062, 2010.
  14. Zhang, J.J., Wu, M.\*, Schoene, N.W., **Cheng, W.-H.**, Wang, T.T.Y., Alshatwi, A.A., Alsaif, M. and Lei, K.Y. The effect of resveratrol and Zinc on intracellular Zinc status in normal human prostate epithelial (NHPrE) cells. *Am. J. Physiology* 297:C632-C644, 2009.
  15. **Cheng, W.-H.**, Muftic, D., Muftuoglu, M., Dawut, L., Morris, C., Helleday, T., Shiloh, Y. and Bohr, V.A. WRN is required for ATM activation and the S-phase checkpoint in response to interstrand crosslink-induced DNA double strand breaks. *Mol. Biol. Cell*. 19:3923-3933, 2008.
  16. Muftuoglu, M., Kusumoto, R., Speina, E., Beck, G., **Cheng, W.-H.** and Bohr, V.A. Acetylation regulates WRN catalytic activities and affects base excision DNA repair. *PLOS ONE*, 3:e1918, 2008.

17. Imam, S.Z., Indig, F., **Cheng, W.-H.**, Saxena, S.P., Thorslund, T., Kufe, D. and Bohr, V.A. Cockayne syndrome protein B interacts with and is phosphorylated by c-Abl tyrosine kinase. *Nucleic Acids Res.* 35:4941-4951, 2007.
18. Agrelo, R., **Cheng, W.-H.**, Setien, F., Espada, J., Fraga, M.F., Herranz, M., Paz, M.F., Sanchez-Cespedes, M., Artiga, M.J., Guerrero, D., Castells, A., von Kobbe, C., Bohr, V.A. and Esteller, M. Epigenetic inactivation of the premature aging Werner syndrome gene in human cancer, *Proc. Natl. Acad. Sci.* 103:8822-8827, 2006.
19. **Cheng, W.-H.**, Kusumoto, R., Opresko, P.L., Sui, X., Huang, S., Nicolette, M.L., Paull, T.T., Campisi, J., Seidman, M.M. and Bohr, V.A. Collaboration of Werner syndrome protein and BRCA1 in cellular responses to DNA interstrand cross-links, *Nucleic Acids Research.* 34::2751-2760, 2006.
20. Lee, J.W., Kusumoto, R., Doherty, K.M., Lin, G.-X., Zeng, W., **Cheng, W.-H.**, von Kobbe, C., Brosh, R.M. Jr., Hu, J.-S. and Bohr, V.A. Modulation of Werner syndrome protein function by a single mutation in the conserved RQC domain. *J. Biol. Chem.* 280:39627-39636, 2005.
21. **Cheng, W.-H.**, Sakamoto, S., Fox, J.T., Komatsu, K., Carney, J.P. and Bohr, V.A. Werner syndrome protein associates with  $\gamma$ H2AX in a manner that depends upon Nbs1. *FEBS Letters* 579:1350-1356, 2005.
22. **Cheng, W.-H.**, von Kobbe, C., Opresko, P.L., Arthur, L.M., Seidman, M.M., Carney, J.P., Komatsu, K. and Bohr, V.A. Linkage between Werner syndrome protein and the Mre11 complex via Nbs1. *J. Biol. Chem.*, 279:1169-21176, 2004.
23. von Kobbe, C., Harrigan, J.A., May, A., Dawut, L., Opresko, P.L., **Cheng, W.-H.** and Bohr, V.A. Central role for the WRN/PARP-1 complex in the poly(ADP-ribosylation) pathway after DNA damage. *Mol. Cell. Biol.* 23:8601-8613, 2003.
24. **Cheng, W.-H.**, von Kobbe, C., Opresko, P.L., Ren, J., Kufe, D. and Bohr, V.A. Werner syndrome protein phosphorylation by Abl tyrosine kinase regulates its activity and distribution. *Mol. Cell. Biol.* 23:6385-6395, 2003.
25. Kyng, K.J., May, A., Brosh, R.M., Jr., **Cheng, W.-H.**, Chen, C., Becker, K.G. and Bohr, V.A. The transcriptional response after oxidative stress is defective in Cockayne syndrome group B cells. *Oncogene*, 22:1135-1149, 2003.
26. **Cheng, W.-H.**, Quimby, F.R. and Lei, X. Impacts of glutathione peroxidase-1 knockout on the protection by injected selenium against the pro-oxidant-induced liver aponecrosis and signaling in selenium-deficient mice. *Free Radical Biology & Medicine.* 34:918-927, 2003.
27. **Cheng, W.-H.**, Zheng, X., Quimby, F.R., Roneker, C.A. and Lei, X. Low levels of glutathione peroxidase 1 activity in selenium-deficient mouse liver affect c-Jun N-terminal kinase activation and p53 phosphorylation on Ser-15 in pro-oxidant-induced aponecrosis. *Biochem. J.* 370:927-934, 2003.
28. Karmakar, P., Piotroweki, J., Brosh, R.M. Jr., Sommers, J.A., Lees Miller, S.P., **Cheng, W.-H.**, Snowden, C.M., Ramsden, D.A. and Bohr, V.A. Werner protein is a target of DNA-dependent protein kinase *in vivo* and *in vitro*, and its catalytic activities are regulated by phosphorylation. *J. Biol. Chem.* 277:18291-18302, 2002.
29. Fu, Y., **Cheng, W.-H.**, Porres, J.M., Ross, D.A. and Lei, X. Knockout of cellular glutathione peroxidase gene renders mice susceptible to diquat-induced oxidative stress.

*Free Radical Biology and Medicine*, 27:605-611, 1999.

30. **Cheng, W.-H.**, Valentine, B.A. and Lei, X. High levels of dietary vitamin E do not replace cellular glutathione peroxidase in protecting mice from acute oxidative stress. *J. Nutr.*, 129:1951-1957, 1999.
31. **Cheng, W.-H.**, Fu, Y., Porres, J.M., Ross, D.A. and Lei, X. Selenium-dependent cellular glutathione peroxidase protects mice against a pro-oxidant-induced oxidation of NADPH, NADH, lipids, and protein. *FASEB J.*, 13:1467-1475, 1999.
32. Porres, J.M., Stahl, C.H., **Cheng, W.-H.**, Fu, Y., Roneker, K.R., Pond, W.G. and Lei, X. Dietary intrinsic phytate protects colon from lipid peroxidation in pigs with a moderately high dietary iron intake. *Proceedings of the Society for Experimental Biology and Medicine*, 221:80-86, 1999.
33. Fu, Y., **Cheng, W.-H.**, Ross, D.A. and Lei, X. Cellular glutathione peroxidase protects mice against lethal oxidative stress induced by various doses of diquat. *Proceedings of the Society for Experimental Biology and Medicine*, 222:164-169, 1999.
34. **Cheng, W.-H.**, Combs, Jr. G.F. and Lei, X. Knockout of cellular glutathione peroxidase affects selenium-dependent parameters similarly in mice fed adequate and excessive dietary selenium. *BioFactors*, 7:311-321, 1998.
35. **Cheng, W.-H.**, Ho, Y.-S., Valentine, B.A., Ross, D.A., Combs, Jr., G.F. and Lei, X. Cellular glutathione peroxidase is the mediator of body selenium to protect against paraquat lethality in transgenic mice. *J. Nutr.*, 128:1070-1076, 1998.
36. Lei, X., Dann, H.M., Ross, D.A., **Cheng, W.-H.**, Combs, Jr., G.F. and Roneker, K.R. Dietary selenium supplementation is required to support full expression to three selenium-dependent glutathione peroxidases in various tissues of weanling pigs. *J. Nutr.*, 128:130-135, 1998.
37. **Cheng, W.-H.**, Ho, Y.-S., Ross, D.A., Valentine, B.A., Combs, Jr., G.F. and Lei, X. Cellular glutathione peroxidase knockout mice express normal levels of selenium-dependent plasma and phospholipid hydroperoxide glutathione peroxidase in various tissues. *J. Nutr.*, 127:1445-1450, 1997.
38. **Cheng, W.-H.**, Ho, Y.-S., Ross, D.A., Han, Y., Combs, Jr., G.F. and Lei, X. Overexpression of cellular glutathione peroxidase does not affect expression of plasma glutathione peroxidase or phospholipid hydroperoxide glutathione peroxidase in mice offered diets adequate or deficient in selenium. *J. Nutr.*, 127:475-480, 1997.

ii. Invited or peer-reviewed reviews.

39. Rocourt, C\*, **Cheng, W.-H.** Are the potential benefits of chemoprevention outweighed by the promotion of diabetes and insulin resistance? *Nutrients*. 5:1349-1365, 2013.
40. Zhang, S.\*, Rocourt, C.\*, **Cheng, W.-H.** Selenoproteins and the aging brain. *Mechanisms of Ageing and Development*. 131:253-260, 2010.
41. **Cheng, W.-H.** Impact of inorganic nutrients on genomic stability and maintenance. *Environmental and Molecular Mutagenesis* 50:349-360, 2009.
42. Muftuoglu, M., Oshima, J., von Kobbe, C., **Cheng, W.-H.**, Leistriz, D.F. and Bohr, V.A. The clinical characteristics of Werner syndrome: molecular and biochemical diagnosis. *Human Genetics* 124:369-377, 2008.

43. **Cheng, W.-H.**, Muftuoglu, M. and Bohr, V.A. Werner syndrome protein: functions in the response to DNA damage and replication stress in S-phase. *Experimental Gerontology*, 42:871-878, 2007.
  44. Lei, X., **Cheng, W.-H.** and McClung, J. Metabolic regulation and function of glutathione peroxidase-1, *Annu. Rev. Nutr.* 27:41-61, 2007.
  45. Lei, X. and **Cheng, W.-H.** New Roles for an Old Selenoenzyme: Evidence from Glutathione Peroxidase-1 Null and Overexpressing Mice. *J. Nutr.* 135:2295-2298, 2005.
  46. Opresko, P.L. **Cheng, W.-H.** and Bohr, V.A. At the junction of RecQ helicase biochemistry and human disease. *J. Biol. Chem.*, 279:18099-18102, 2004.
  47. Opresko, P.L., **Cheng, W.-H.**, von Kobbe, C., Harrigan, J.A. and Bohr, V.A. Werner syndrome and the function of the Werner protein: What they can teach about the molecular aging process. *Carcinogenesis*. 24:791-802, 2003.
  48. **Cheng, W.-H.**, Opresko, P.L., von Kobbe, C., Harrigan, J.A. and Bohr, V.A. The human Werner syndrome as a model for aging. *Topics in Current Genetics*. 3:239-268, 2003.
  49. Lei, X. and **Cheng, W.-H.** Analysis of phospholipid hydroperoxide glutathione peroxidase mRNA. *Methods in Molecular Biology*. 196:183-193, 2002.
- c. Book Reviews, Other Articles, and Notes.
50. Wu, R.T.Y.\* and **Cheng, W.-H.** New Insight into telomere maintenance. *Aging*. 2, 255-256, 2010.
  51. **Cheng, W.-H.**, Bohr, V.A. and de Cabo, R. Preface: special issue on nutrition and aging. *Mechanisms of Ageing and Development*. 131: 223-224, 2010.
  52. **Cheng, W.-H.** and Bohr, V.A.. The Diverse Dealings of the Werner Helicase/Nuclease. *Science SAGE KE* (6 August 2003), <http://sageke.sciencemag.org/cgi/content/full/sageke;2003/31/pe22>
- d. Talks, Abstracts, and Other Professional Papers Presented.
- i. Invited talks (44).

### **Regional:**

1. Towards understanding of dietary supplements. *CAPA annual conference*. Gaithersburg, MD. October 2013.
2. Genome maintenance by selenium in aging and cancer prevention. *The Johns Hopkins University*. Baltimore, MD. September 2012.
3. Selenium, genome maintenance, and tumorigenesis. *National Institute on Aging, NIH*, Baltimore, Maryland. June 2010.
4. Selenium compounds activate earlier barriers of tumorigenesis. *UMD-NCI Workshop*. Bethesda, Maryland. June 2010.
5. Distinct roles of selenium in the protection against cancer and aging. *University of Maryland, College Park*, Maryland. November 2010.
6. Premature aging syndrome, cancer, and antioxidant nutrients. Department of Chemistry and Biochemistry, *University of Maryland, College Park*, Maryland. March 2009.

## National:

7. Linking selenium to genome maintenance and aging. *Oklahoma State University*. Stillwater, OK, March 2013.
8. Linking selenium to genome maintenance and age-related loss of function. *Mississippi State University*. Mississippi State, MS, February 2013.
9. Selenium and selenoproteins in the maintenance of genome stability. International Conference on Nutritional Science and Therapy. August 2012. Philadelphia, PA.
10. Linking Selenium to Genome Maintenance and Age-related Degeneration. *Clemson University*, Clemson, South Carolina. June 2012.
11. Antioxidant nutrients linked to DNA repair and mammalian aging. *University of Maryland, College Park*, Maryland. October 2006.
12. Antioxidant nutrients linked to DNA repair and mammalian aging. *University of California, Davis*, California. May 2006.
13. Integral role for WRN in early DNA double strand break response. *DNA repair Interest group videoconference*. <http://www.nih.gov:80/sigs/dna-rep/>. May 2006.
14. Cancer and aging: how antioxidant nutrients and DNA repair challenge the demons. USDA Grand Forks Human Nutrition Research Center Grand Forks, North Dakota. May 2003.
15. Innovative tools to assess body antioxidant status and selenium/vitamin E nutrition. *Cornell Nutrition Conference*, 2001, Rochester, New York. November 2001.

## International:

1. A role of selenium at nutritional levels of intake in mouse aging. *10<sup>th</sup> International Symposium on Selenium in Biology and Medicine*. Berlin, Germany. September 15, 2013.
2. Selenium, genome maintenance and aging. *11<sup>th</sup> China Nutrition Society Congress & International DRI Summit*. Hangzhou, China. May 17, 2013.
3. Selenium, genome maintenance and age-related disorders. *Westlake Frontiers: Nutrition Research Training Program*. Zhejiang University, Hangzhou, China. May 18, 2013.
4. Selenium, genome maintenance and metabolism. *China Agriculture University*, Beijing, China. April 24, 2013.
5. New Insight into selenium chemoprevention. *6<sup>th</sup> World Congress of Industrial Biotechnology*, Nanjing, China. April 26, 2013.
6. Genome maintenance by selenium in aging and cancer prevention. *The University of Ulsan*. Ulsan, South Korea. October 2012.
7. The role of ATM and DNA-PK in selenium-induced oxidative stress and senescence response. *14<sup>th</sup> International Workshop on Ataxia-Telangiectasia and ATM*, 2012, New Delhi, India. February 2012.
8. Roles of ATM and DNA-PKcs in selenium-induced senescence response. *Koc University*, Istanbul, Turkey. October 2011.
9. Selenium-induced senescence by oxidative DNA damage as an early barrier of tumorigenesis. *IX ISTERH (International Society for Trace Element Research in Humans) Conference*. Antalya, Turkey. October 2011.
10. Selenium-induced senescence as an early barrier of tumorigenesis. *14<sup>th</sup> International Conference on Trace Element in Man and Animals*, 2011, Enshi, China. September 2011.
11. Selenium mitigates precancerous lesions and aging through DNA damage responses. *South China Agriculture University*, Guangzhou, China. September 2011.
12. Linking selenium to genome maintenance and longevity. *China Medical University*, Taichung, Taiwan. July 2011.
13. Selenium compounds activate earlier barriers of tumorigenesis in non-cancerous cells. *9<sup>th</sup>*

- International Symposium on Selenium in Biology and Medicine*. Kyoto, Japan. June 2010.
14. Selenium, genome maintenance, and longevity. Department of Genome Repair Dynamics, Radiation Biology Center, Kyoto University, Kyoto, Japan. June 2010.
  15. Linking Selenium to Genome Maintenance and Longevity. *36<sup>th</sup> Annual Conference of Nutrition Society of Taiwan: Challenge in Nutrition Research and Services in an Aged Society*. Taipei, Taiwan. May 2010.
  16. Linking selenium to genome maintenance and longevity. Institute of Cellular and Organismic Biology, Academia Sinica, Taipei, Taiwan. August 2010.
  17. Linking selenium to genome maintenance and longevity. Department of Animal Science and Technologies, National Taiwan University, Taipei Taiwan. May 2010.
  18. Linking selenium to genome maintenance and longevity. Department of Human Development and Family Studies, National Taiwan Normal University, Taipei Taiwan. May 2010.
  19. Recent advances in anti-aging study and the clinical application. Department of Geriatrics and Gerontology. National Taiwan University Hospital. Taipei, Taiwan. May 2010.
  20. Selenium chemoprevention, induction of DNA damage Response, and nanoparticles. *1<sup>st</sup> World Congress of the International Academy of nanomedicine*. Sanya, China. June 2009.
  21. Linking cancer prone premature aging syndrome to antioxidant nutrients. *The 1<sup>st</sup> international conference in biotechnology*, Riyadh, Saudi Arabia. February 2009.
  22. Linking selenium to DNA repair and aging. Chang Jung Christian University, Tainan, Taiwan. July 2008.
  23. Replication stress-induced S-phase checkpoint is mediated by WRN-dependent ATM activation. *11<sup>th</sup> International Workshop on Ataxia-Telangiectasia and ATM*, 2006, Banff, Alberta, Canada. September 2006.
  24. Altered DNA break response in the human Werner premature aging syndrome. *The 4<sup>th</sup> Geneva Aging Workshop: Aging and Cancer at the Crossroads*, Geneva, Switzerland. October 2004.
  25. Functional interaction between Werner syndrome protein and Nbs1 in the DNA damage response. *Workshop on "Molecular Cross talk among Chromosome Fragility Syndromes"* at Instituto Juan March, Madrid, Spain. February 2004.
  26. Altered DNA break response in the Werner premature aging syndrome. Department of Biological Sciences, Brock University, St. Catherine, Ontario, Canada. February 2004.

*International conferences held in the US:*

27. A S-phase checkpoint mediated by WRN-dependent ATM activation. *RecQ helicases and other helicases in telomere maintenance and related pathways*, Lansdowne, Virginia, USA. 2006.
28. WRN functions in the cellular response to DNA cross-links. *Genome Instability and Repair*, Keystone Symposia, Taos, New Mexico. April 2005.
29. The c-Abl/WRN/Nbs1 pathway in the DNA damage response. *International Workshop on Werner Syndrome*, 2003, Lansdowne, Virginia, USA. May 2003.

ii. Refereed conference posters (6).

- 2013 10<sup>th</sup> ISSBM
- 2010 13<sup>th</sup> A-T workshop
- 2008 12<sup>th</sup> A-T workshop
- 2007 Gordon conference (Biology of Aging)
- 2005 3R (Replication, Recombination and Repair) conference
- 2003 FASEB Summer Research Conference (helicase)

iii. Unrefereed conference posters (40).



- 2013 *EB 2013 (3)*
- 2012 *EB 2012 (4), AACR 2012 (1), APNC 2012 (1)*
- 2011 *EB 2011 (8), AACR 2011 (1).*
- 2010 *EB 2010 (4).*
- 2009 *EB 2009 (1).*
- 2008 *EB 2008 (2).*
- 1997-2006 *EB (8), GRC conference, regional (5), AACR (2).*

e. Fellowships, Prizes, and Awards.

- 2010 **Gamma Sigma Delta Award-Excellence in Research 2010.** University of Maryland-National Area Chapter.
- 2009 **GRB summer award,** Graduate School, University of Maryland, College Park.
- 2006 **Young Investigator Award,** 11<sup>th</sup> International Workshop on Ataxia-Telangiectasia and ATM, Banff, Canada.
- 2005 **Young Investigator Award,** Keystone Symposia: the Genome Instability and Repair, Taos, New Mexico.
- 2004 **Nathan W. Shock Award,** National Institute on Aging, NIH.
- 2003 **FARE (The Fellows Awards for Research Excellence) winner,** NIH.
- 2000 **Wu/Liu Award** (in recognition of excellence in research), Cornell University.

f. Editorships, Editorial Boards, and Reviewing Activities for Journals.

i. Editorships:

2009 Guest Editor. *Mechanisms of Ageing and Development*, Special Issue: “Nutrition and Aging”.

ii. Editorial Board:

2011-present *Journal of Nutritional Disorders & Therapy*

2013-present *Journal of Nutrition*

iii. Manuscript referee (62):

- *Journal of Nutrition* (16)
- *British Journal of Nutrition* (6)
- *Journal of Nutritional Biochemistry* (2)
- *Cancer Research* (1)
- *Oncogene* (1)
- *Nucleic Acid Research* (1)
- *Mechanisms of Ageing and Development* (14)
- *Clinical and Experimental Pharmacology and Physiology* (1)
- *Plant Foods for Human Nutrition* (1)
- *PLoS One* (2)
- *Journal of Medicinal Food* (1)
- *Journal of Inorganic Biochemistry* (1)
- *Journal of Animal Science* (1)

- *Journal of Radiation Research (1)*
- *Cancer Prevention Research, IF: 6.0, (1).*
- *Molecular Nutrition and Food Research, IF: 4.36, (2).*
- *Molecules (1).*
- *ACS Applied Materials & Interfaces (1).*
- *Nutrients (1)*
- *Nutrition and Cancer (1).*
- *Food Science and Nutrition (4).*
- *BBA (1).*
- *Gene (1)*

iv. Grant referee:

- USDA internal grant, 2010
- Telethon --Cure for Genetic Disease, Italy (2). 2011, 2012
- The US-Israel Agricultural Research & Development Fund, Nov 2012
- University of Maryland at College Park internal competitive grant, 2013.

3. Teaching, Mentoring, and Advising (University of Maryland, 2007-2013)

a. Courses taught in the last five years.

*Lecture courses:*

- NFSC 610, Molecular Gerontology, 3 credits (Fall 08, 10 students; Fall 09, 5 students, Fall 11, 6 students)
- NFSC 410/678C, Nutritional Genomics, 3 credits (Spring 09, 10 students; Fall 10, 5 students; Fall 12, 17)
- NFSC 688/888, Seminar in Nutrition and Food Science, 1 credit (Fall 09, 10 students; Fall 10, 9 students, Spring 11, 29 students)
- NFSC 611, Molecular Nutrition, 2 credits (Spring 10, 4 students; Spring 11, 4 students; Spring 12, 6 students)
- \*NFSC100, Element of Nutrition, 3 credit (Fall 10, 467 students, teach 33% lectures; Winter 11, 17 students; Fall 11, 455 students; Winter 12, 18 students; Spring 12, 443 students; Fall 12, 472). \*, course coordinator, sharing 20% of the lectures.
- Contributed lectures—NFSC678 (Nutraceuticals), 04.11.2007, 3h; NFSC690 (Nutrition and Aging), 10.18.2007, 3 h; NFSC112 (Food: science and technology), 10.22.2007, 1 h; NFSC660 (Research methods), 3.14.2008, 2 h.

b. Course or Curriculum Development.

- NFSC 610, Molecular Gerontology
- NFSC 410/678C, Nutritional Genomics
- NFSC 611, Molecular Nutrition

c. Advising: other than research direction.

i. Undergraduate.

- Spring 09-Spring 11, 15-20 students per semester.

- Since Fall 11-Spring 13, ~30 students per semester.

d. Advising: Research Direction.

i. Undergraduate (10 students).

- Melissa Khare (Summer 2012)
- Chris Maino (Fall 2012)
- Nosheen Hayat (Fall 2012)
- Elliot Mattson (Summer 10; Summer and Fall 11)
- Louis Spear (Summer 11-Spring 12)
- Christina Bohr (Fall 07 – Spring 10). *Howard Hughes Medical Institute Undergraduate Fellowship.*
- Jennifer Brown (Fall 09)
- Mandy Kang (Summer 07 – Spring 08). *McNair Scholar.*
- Ana Valencia (Spring 09)
- Ankita Saxina (Fall 07)

ii. Master's, \*graduated (5).

- \*Caroline Rocourt, Fall 09
- \*Shu Zhang, Fall 09
- \*Junhao Ma, Summer 09
- \*Alexandra Holmstrom, Fall 10
- \*Tiffany Tzeng, Fall 12
- Jallah Rouse, Fall 11-present

iii. Doctoral, \*graduated (1).

- \*Min Wu, Spring 11. *Ann G. Wylie Dissertation Fellowship (2010)*
- Ryan T.Y. Wu, Fall 09-present *Ann G. Wylie Dissertation Fellowship (2012)*
- Caroline Rocourt, Spring 10-present

iv. Postdoctoral/visiting scholars

- Dr. Fredrick Lartey, 01.2008-10.2008.
- Dr. Yongmei Qi, 07.2008-06.2010. *China Scholarship Council Fellowship.*
- Ying Yu, 09.2010-09.2011. *China Scholarship Council Fellowship.*
- Prof. Junfang Lin, 10.2011-09.2012. *China Scholarship Council Fellowship.*
- Prof Wentai Xu, 04.2013-08.2013. *China Scholarship Council Fellowship.*
- Prof Xin Geng, 06.2013-08.2013.

v. High school students

- Dora Lin, summer 2009
- Trisha Lal, summer 2012

4. Service

a. Professional.

i. Offices and committee memberships held in professional organizations.

- Co-chair, Selenium mini-symposium, Experimental Biology 2010, Anaheim, California.
- Chair, Poster Competition Selection Committee, 14<sup>th</sup> International Conference on Trace Element in Man and Animals, 2011, Enshi, China.
- Co-chair, Symposium 3C: Trace elements on cell death, tumor and cancer. 14<sup>th</sup> International Conference on Trace Element in Man and Animals, 2011, Enshi, China.
- Speak on an education symposium: Scientific career advancement for early stage investigators. EB 2012, San Diego, April 24, 2012. Title: “New Professor from Research University”.
- Organizing committee member and scientific advisor: International Conference and Exhibition on Nutritional Science & Therapy. Philadelphia, PA, August 2012.

b. Campus (University of Maryland).

i. Departmental.

- PhD Degree Committee (\*, graduated):
  1. \*Edra London (Chair: Dr. Castonguay). Fall 09.
  2. \*Junjun Zhang (Chair: Dr. Lei). Fall 08.
  3. \*Steven Trasino (Chair: Dr. Lei). Spring 11.
  4. \*Andy Ludlow (Chair: Dr. Roth, Dept of Kinesiology). Fall 11.
  5. Yuting Zhou (Chair: Dr. Lo). 2011-present
- Master’s Degree Committee (\*, graduated):
  1. \*Reem Al-Ahamshi (Chair: Dr. Jackson). Spring 09.
  2. \*Omayra Rodriguez (Chair: Dr. Song, Dept. of Animal Science). Spring 10.
  3. Ruth Clark (Chair: Dr. Lee). Spring 2013-present.
- TA committee (2009-2012)
- Nutrition Graduate Program Admission Committee (2007-present)
- NFSC Research Day Committee, chair (2009, 2011)
- *Ad hoc* NFSC Future Plan Committee (2008)
- *Ad hoc* AGNR Holiday Party Committee, chair (2008)
- Scholarship Committee (2007-2010)
- Recruitment Committee:
  1. Coordinator (2007)
  2. NFSC Chair (2011)
  3. Nutrition faculty (2011)

ii. College.

- NFSC PCC representative (Spring 2008-present)
- Shorb committee (2007-2011; chair 2011)

iii. University.

- A delegate of a 6-faculty team led by Dean Cheng-I Wei to Taiwan, June 10-June 14, 2009, to execute a MOU on academic collaborations.
- University Senate. AGNR At-Large, 2012-2015.