

BIOGRAPHICAL SKETCH

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NAME Klimecki, Walter Thomas		POSITION TITLE Associate Professor of Pharmacology/Toxicology	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Ohio State University	B.Sc	6/80	Animal Science
Ohio State University	D.V.M.	6/84	Veterinary Medicine
University of Arizona	Ph.D.	6/94	Pharmacol./Toxicology
University of Arizona	Post. Doc	10/97	Cancer Biology

Positions and Honors

Positions and Employment

1997-2000 Manager, Genotyping Assays, Motorola Biosciences, Phoenix, Arizona
2000-Present: Associate Research Scientist, Arizona Respiratory Center, University of Arizona
2004-Present: Research Assistant Professor of Medicine, College of Medicine, Univ. of Arizona
2006-Present: Assistant Professor of Pharmacology/Toxicology, University of Arizona
2008-Present: Co-Director: Integrative Health Sciences Facility Core, Southwest Environmental Health Sciences Center, University of Arizona
2012-Present: Associate Professor of Pharmacology/Toxicology, University of Arizona
2013-Present: Associate Chair, Department of Pharmacology/Toxicology, University of Arizona

Other Experience and Professional Memberships

1994-1996 NRSA Post-doctoral fellowship, National Cancer Institute, NIH
1999-2005 NIH Study Section Member, ZRG1-SSS-L, (SBIR,STTR, Drug Development)
2002, 2005 Study Section, Genome Canada
2005 NIH Study Section Member, ZRG1-CFS
2007, 2008 NIH Study Section Member, ZAT1 SM
2008 NIH Special Emphasis Panel for RFA-HL-08-008
2009 NIH Study Section Member, ZAT1 SM
2010 Scientific Organizing Committee, "Arsenic 2010" Biennial Meeting, Tainan City, Taiwan
Member Society of Toxicology, VP-Elect, Metals Specialty Section
Member Mountain West Regional Society of Toxicology
Member International Society of Environmental Epidemiology

15 Selected peer-reviewed publications

Zhao F, Severson P, Pacheco S, Futscher BW, **Klimecki** WT. Arsenic exposure induces the Warburg effect in cultured human cells. *Toxicol Appl Pharmacol.* 2013. doi: 10.1016/j.taap.2013.04.020. PubMed PMID: 23648393.

Lake AD, Novak P, Hardwick RN, Flores-Keown B, Zhao F, **Klimecki** WT, et al. The Adaptive Endoplasmic Reticulum Stress Response to Lipotoxicity in Progressive Human Nonalcoholic Fatty Liver Disease. *Toxicol Sci.* 2013. doi: 10.1093/toxsci/kft230. PubMed PMID: 24097666.

Diaz-Villasenor A, Cruz L, Cebrian A, Hernandez-Ramirez RU, Hiriart M, Garcia-Vargas G, et al. Arsenic Exposure and Calpain-10 Polymorphisms Impair the Function of Pancreatic Beta-Cells in Humans: A Pilot Study of Risk Factors for T2DM. *PLoS One.* 2013;8(1):e51642. doi: 10.1371/journal.pone.0051642. PubMed PMID: 23349674; PubMed Central PMCID: PMC3551951.

Klionsky DJ, Abdalla FC, Abeliovich H, Abraham RT, Acevedo-Arozena A, Adeli K, et al. Guidelines for the use and interpretation of assays for monitoring autophagy. *Autophagy.* 2012;8(4):445-544. Epub 2012/09/12. PubMed PMID: 22966490; PubMed Central PMCID: PMC3404883.

Gomez-Rubio P, Klimentidis YC, Cantu-Soto E, Meza-Montenegro MM, Billheimer D, Lu Z, et al. Indigenous American ancestry is associated with arsenic methylation efficiency in an admixed population of northwest Mexico. *J Toxicol Environ Health A*. 2012;75(1):36-49. Epub 2011/11/04. doi: 10.1080/15287394.2011.615107. PubMed PMID: 22047162.

Canet MJ, Hardwick RN, Lake AD, Kopplin MJ, Scheffer GL, **Klimecki** WT, et al. Altered arsenic disposition in experimental nonalcoholic Fatty liver disease. *Drug metabolism and disposition: the biological fate of chemicals*. 2012;40(9):1817-24. Epub 2012/06/16. doi: 10.1124/dmd.112.046177. PubMed PMID: 22699396; PubMed Central PMCID: PMC3422539.

Bolt AM, Zhao F, Pacheco S, **Klimecki** WT. Arsenite-induced autophagy is associated with proteotoxicity in human lymphoblastoid cells. *Toxicology and applied pharmacology*. 2012;264(2):255-61. Epub 2012/09/11. doi: 10.1016/j.taap.2012.08.006. PubMed PMID: 22959463; PubMed Central PMCID: PMC3462290.

Mostecky J, Cassel SL, **Klimecki** WT, Stern DA, Knisz J, Iwashita S, et al. A SOCS-1 promoter variant is associated with total serum IgE levels. *Journal of immunology*. 2011;187(5):2794-802. Epub 2011/07/29. doi: 10.4049/jimmunol.0902569. PubMed PMID: 21795592; PubMed Central PMCID: PMC3159751.

Lake AD, Novak P, Fisher CD, Jackson JP, Hardwick RN, Billheimer DD, et al. Analysis of global and absorption, distribution, metabolism, and elimination gene expression in the progressive stages of human nonalcoholic fatty liver disease. *Drug metabolism and disposition: the biological fate of chemicals*. 2011;39(10):1954-60. Epub 2011/07/09. doi: 10.1124/dmd.111.040592. PubMed PMID: 21737566; PubMed Central PMCID: PMC3186211.

Gomez-Rubio P, Roberge J, Arendell L, Harris RB, O'Rourke MK, Chen Z, et al. Association between body mass index and arsenic methylation efficiency in adult women from southwest U.S. and northwest Mexico. *Toxicology and applied pharmacology*. 2011;252(2):176-82. Epub 2011/02/16. doi: 10.1016/j.taap.2011.02.007. PubMed PMID: 21320519; PubMed Central PMCID: PMC3075343.

Gomez-Rubio P, Meza-Montenegro MM, Cantu-Soto E, **Klimecki** WT. Genetic association between intronic variants in AS3MT and arsenic methylation efficiency is focused on a large linkage disequilibrium cluster in chromosome 10. *J Appl Toxicol*. 2010;30(3):260-70. Epub 2009/12/17. doi: 10.1002/jat.1492. PubMed PMID: 20014157; PubMed Central PMCID: PMC2862143.

Bolt AM, Douglas RM, **Klimecki** WT. Arsenite exposure in human lymphoblastoid cell lines induces autophagy and coordinated induction of lysosomal genes. *Toxicol Lett*. 2010;199(2):153-9. doi: 10.1016/j.toxlet.2010.08.017. PubMed PMID: 20816728; PubMed Central PMCID: PMC2956852.

Bolt AM, Byrd RM, **Klimecki** WT. Autophagy is the predominant process induced by arsenite in human lymphoblastoid cell lines. *Toxicol Appl Pharmacol*. 2010;244(3):366-73. doi: 10.1016/j.taap.2010.01.019. PubMed PMID: 20153345; PubMed Central PMCID: PMC2849852.

Meza M, Gandolfi AJ, **Klimecki** WT. Developmental and genetic modulation of arsenic biotransformation: a gene by environment interaction? *Toxicology and applied pharmacology*. 2007;222(3):381-7. Epub 2007/02/20. doi: 10.1016/j.taap.2006.12.018. PubMed PMID: 17306849; PubMed Central PMCID: PMC2040165.

Bieli C, Eder W, Frei R, Braun-Fahrlander C, **Klimecki** W, Waser M, et al. A polymorphism in CD14 modifies the effect of farm milk consumption on allergic diseases and CD14 gene expression. *J Allergy Clin Immunol*. 2007;120(6):1308-15. doi: 10.1016/j.jaci.2007.07.034. PubMed PMID: 17919709.

D. Research Support

Project Number: P42 ES004940 PI-Project 4: Klimecki, WT

Source: NIEHS

Title of Project: Project 4: Determinants of individual variability in arsenic cytotoxicity

Dates of Project: 04/01/10-03/31/15

This project focuses on understanding the genetic and environmental determinants of human variation in intrinsic resistance to arsenic cytotoxicity in a panel of human immune cell lines derived from healthy people.

Completed Research Support:

The unfolded protein response: Mechanism of inorganic arsenic resistance

Project Number: ABRC 91005

Source: Arizona Biomedical Research Commission

Dates of Project: 7/1/2011-6/30/2013

This grant was focused on identifying the contribution of the unfolded protein response to differential susceptibility to arsenic cytotoxicity in human lymphoblastoid cell lines as a model of population-level individual susceptibility.

Role: Principal Investigator

Biomarkers and Genetic Factors Related to Sarcopenia in Women

Role: Co-Investigator

Agency: NIA

Type: R01 AG027979 Period: 10/1/2007-9/30/2012

This grant was focused on identifying the genetic and environmental determinants of muscle wasting in women.

Human Genetics of Arsenic Biotransformation Role: Co-Principal Investigator

Role: Co-Principal Investigator, Project 4

Agency: NIEHS

Type: P42 ES004940 Period: 04/01/05-03/31/10

This grant was focused on identifying the genetic and environmental determinants of muscle wasting in women.

Epigenetic Remodeling by Environmental Arsenicals

Role: Co-Investigator (PI: Bernard Futscher)

Agency: NIEHS/NCI

Type R01 ES015159 Period: 9/1/2006-8/31/2010

This grant focused on characterizing epigenetic changes in bladder epithelium (an arsenic carcinogenesis target) in an arsenic exposed population in northern Mexico