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## BIOGRAPHICAL SKETCH

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NAME Elizabeth P. Ryan	POSITION TITLE Assistant Professor		
eRA COMMONS USER NAME EPRyan			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Bowling Green State University Bowling Green, OH	B.S.	1996	Environmental Science and Biology
University of Rochester School of Medicine and Dentistry, Rochester, NY	M.S.	2003	Molecular Toxicology
University of Rochester School of Medicine and Dentistry, Rochester, NY	Ph.D.	2006	Molecular Toxicology

### A. Positions and Honors.

#### Professional Experience

Present Assistant Professor, Colorado State University, Department of Clinical Sciences, Animal Cancer Center and Colorado School of Public Health  
2008-2009 Assistant Professor, Crops for Health Program and Cancer Prevention Laboratory,  
2006-2007 Research Assistant Professor, Cancer Control and Prevention, University of Rochester  
2004 Graduate Teaching Assistant, Department of Environmental Medicine, University of Rochester  
2001 Project Management Support, Human Health Risk Assessment, Tetra Tech NUS, Pittsburgh  
2000 Research Assistant, Harvard University, Organismic and Evolutionary Biology Department  
1999 Laboratory Technician, University of Rochester, Department of Obstetrics and Gynecology  
1997-1999 Community Forestry Extension, American Peace Corps Volunteer, Nepal  
1996 Birds of Prey Instructor, HawkWatch International, Inc., Salt Lake City, Utah  
1995 Research Assistant, Rocky Mountain Biological Laboratory, Gothic, Colorado

#### Professional Memberships

Advisory Board Member (Co-Chair), Breast and Cervical Cancer Screening Program, Colorado Department of Public Health and Environment  
Society of Toxicology (SOT), Immunotoxicology Specialty Section of SOT  
American Society of Preventive Oncology  
American Society of Clinical Oncology  
University of Colorado Cancer Center  
Colorado Cancer Coalition

#### Honors and Awards

2008 Reproductive and Developmental Toxicology Specialty Section Award, Society of Toxicology  
2006 Harold Hodge Award (Outstanding dissertation in toxicology).  
2006 First Place Drug Discovery Specialty Section Award, Society of Toxicology Annual Meeting  
2006 Society of Toxicology Graduate Student Travel Award  
2006-2008 NCI Cancer Control and Prevention Fellowship (R25 CA102618)  
2005 Bristol-Myers-Squibb Award, for meritorious research in toxicology.  
2005 William F. Neuman Award, Department of Environmental Medicine, University of Rochester  
2005 University of Rochester Graduate Student Society Merit Award  
2004 James P. Wilmot Cancer Center, Immunology Section Award  
2004 Michael G. Buonocore Award, Department of Oral Biology, University of Rochester  
2003-2006 NIEHS Toxicology Training Grant (T32 ES07026)

## **B. Peer-Reviewed Publications**

- Phipps, RP, **EP Ryan** and SH Bernstein. Inhibition of cyclooxygenase-2: a new targeted therapy for B cell lymphoma. *Leukemia Research*. 28:109-111. 2004.
- Ryan EP**, SJ Pollock, TI Murant, RE Felgar, SH Bernstein, and RP Phipps. Activated human B lymphocytes express cyclooxygenase-2 and cyclooxygenase inhibitors attenuate antibody production. *Journal of Immunology*. 174:2619-2626. 2005.
- Ryan EP**, SJ Pollock, K Kaur, RE Felgar, SH Bernstein, N Chiorazzi, and RP Phipps. Constitutive and activation-inducible Cox-2 expression enhances survival of Chronic Lymphocytic Leukemia B cells. *Clinical Immunology* 120:76-90. 2006.
- Ryan EP**, CM Malboeuf, RC Rose, RP Phipps. Cyclooxygenase-2 inhibition attenuates antibody responses against human papillomavirus-like particles. *Journal of Immunology*. 177: 7811-7819. 2006.
- Ryan EP**, J Holz, TA Gasiewicz, and E Puzas. Environmental toxicants may modulate osteoblast differentiation by a mechanism involving the aryl hydrocarbon receptor. *Journal of Bone and Mineral Research* 22:1571-1580. 2007.
- Ryan EP**, TP Bushnell, AE Friedman, I Rahman, and RP Phipps. SC-58125 diminishes intracellular glutathione and induces reactive oxygen species by a Cox-2 independent mechanism in malignant B lineage cells. *Cancer Immunology, Immunotherapy* 57 (3):347-358. 2008
- Figuroa-Moseley, C. Jean-Pierre, P., Roscoe, JL Ryan, S Kohli, O Palesh, **EP Ryan**, J Carroll, and G Morrow Behavioral interventions in the treatment of anticipatory nausea and vomiting: Theoretical models, basic mechanisms, and clinical management. *Journal of National Comprehensive Cancer Network*. Jan 5(1): 44-50. 2007.
- Ryan JL, Carroll J, **Ryan EP**, Mustian K, Morrow GR. Mechanisms of Cancer Related Fatigue. *The Oncologist* 12 Suppl 1: 22-34. 2007 Review.
- Hawkins NA, LA Pollack, S Leadbetter, WR Steele, J,Carroll, JG Dolan, **EP Ryan**, JL Ryan, GR Morrow. Informational Needs of Patients and Perceived Adequacy of Information Available Before and After Treatment for Cancer. *Journal of Psychosocial Oncology*. 26 (2):1-16. 2008.
- Ryan EP** and Thompson HJ. "Design of Nutritional Interventions for Control of Oxidative Stress" chapter in Book entitled Endogenous Toxins. 2009. (in press)
- Ryan EP** and RC Rose. Modulation of B lymphocyte Cox-2 expression post HPV vaccination in adolescent females. (submitted) 2009.
- Caulum, MM.**, Ryan, EP., Fitzgerald, VK., Lee, SG., Thompson, HJ., Brick, M. A., "Application of "Omic" Technologies to Assess Genetic Diversity in Common Dry Bean (*Phaseolus vulgaris*), 2009 (in preparation).
- Daniel E., **Ryan EP**. and Thompson HJ. Dose-dependent Effects of Dry Bean Consumption on Liver Gene Expression Profiles in Rats. (in preparation).

## ***Selected abstracts***

- Ryan EP** and HJ Thompson. Identification of Responders to Selenium Supplementation. National Cancer Institute Translational Science Meeting. Washington DC 2008.
- Heuberger A, Davidson R, Leach L, Thompson H, and **EP Ryan**. Metabolomic profiling of genetically diverse rice cultivars to assess chronic disease prevention traits. Integrated Systems Biology Colorado Metabolomics Society Meeting. 2009.

### **C. Research Support**

School of Global Environment and Sustainability, Colorado State University (20K)

Ryan (PI) "Crops for Health Research Working Group Award" 01/2009-12/2009

NIOSH Mountains and Plains Environmental Research Center Pilot Project Award (20K)

Ryan (PI) "Selenium and Lung Cancer Risk in Asbestos Exposed Male Cohort: A Mechanism-based Metabolomic Approach" 01/2009-12/2011

Fred Hutchison Cancer Center NCI TREC Developmental Project Award (25K)

Ryan (PI) "Modulation of mammary carcinogenesis by glycemic index diet" 10/2008-09/2009

Environmental Health Sciences Center Pilot Project Grant, University of Rochester, NY (25K)

"Immune modulation to HPV vaccination by lead exposure in adolescents" 05/2007-04/2008