

Cindy H Nakatsu

Professor of Agronomy

Department: Agronomy

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Area of Expertise: Microbial Ecology

Current Research Projects:

Impact of anthropogenic factors on microbial community structure

Source tracking and genetic fingerprinting of *E. coli* collected from the environment.

Biochemical and genetic basis of metal (Cr and Pb) resistance by bacteria

Biochemical and genetic basis of hydrocarbon degradation by bacteria

Development of quantitative PCR methods for monitoring bioattenuation of BTEX

Environmental factors influencing gene transfer.

Microbial ecology of wastewater treatment

Teaching:

Agronomy 649 - Molecular Microbial Ecology

Agronomy 349 - Soil Ecology

K-12

Bob the Bacterium

Interdisciplinary Programs:

ESEI

PULSe

Awards and Honors:

Purdue University Faculty Research Scholar, 2002-07

AIST Foreign Researcher Invitation Award, Agency of Industrial Science and Technology, 1996 and 2001

Sustainable Agriculture Travel Award, OECD, 1997

Dow Elanco's Young Investigator's Award, Dow Elanco, 1995

Carleton University Scholarship, 1989-92

Ontario Postgrad Scholarship, 1991-92

NSERC Postgrad Scholarship, 1989-91

Education:

B.Sc., University of Toronto, Toronto, Canada

M.Sc., University of Toronto, Toronto, Canada

Ph.D., Carleton University, Ottawa, Canada

Date joined staff: August 1995

Publications:

Henne, K. L., Turse, J. E., Nakatsu, C. H., & Konopka, A. E. (2011). Protein expression profile of an environmentally important bacterial strain: the Chromate response of *Arthrobacter* sp. strain FB24. In *Handbook of Molecular Microbial Ecology: Metagenomics and Complementary Approaches* (pp. 663-674).

Weaver, C. M., Martin, B. R., Nakatsu, C. H., Armstrong, A. P., Clavijo, A., McCabe, L. D., . . . derHeuvel, E. G. H. M. (2011). Galactooligosaccharide supplementation improves mineral absorption and bone properties in growing rats through gut fermentation. *Journal of Agriculture and Food Chemistry*, *59*, 6501-6510.

Cole, J. R., Myrold, D. D., Nakatsu, C. H., Owens, P. R., Kowalchuk, G., Tebbe, C., & Tiedje, J. M. (2010). Development of soil metadata standards for international DNA sequence databases. *19th World Congress of Soil Science, Soil solutions for a changing world*.

Kong, W., & Nakatsu, C. H. (2010). Optimization of RNA extraction for PCR quantification of aromatic compound degradation genes. *Appl. Environ. Microbiol.*, *76*, 1282-1284.

Henne, K. L., Turse, J. E., Nakatsu, C. H., & Konopka, A. (2010). Protein expression profile of an environmentally important bacterial strain: the Chromate response of *Arthrobacter* sp. strain FB24. In *Handbook of Molecular Microbial Ecology: Metagenomics and Complementary Approaches*.

Ariefdjohan, M. W., Savaiano, D. A., & Nakatsu, C. H. (2010). Optimization of DNA extraction kits for PCR-DGGE analysis of human intestinal microbial communities from fecal specimens. *Nutrition Journal*, *9*, 23. Retrieved from <http://www.nutritionj.com/content/9/1/23>

Kourtev, P. S., Nakatsu, C. H., & Konopka, A. (2009). Inhibition of nitrate reduction by chromium (VI) in anaerobic soil microcosms. *Applied and Environmental Microbiology*, *75*, 6249-6257.

Henne, K. L., Nakatsu, C. H., Thompson, D. K., & Konopka, A. (2009). Chromate resistance genes in *Arthrobacter* sp. strain FB24. *BMC Microbiology*, *9*, 199.

Nebe, J., Baldwin, B. R., Nies, L., Kassab, R. L., & Nakatsu, C. H. (2009). Quantification of aromatic oxygenase genes to evaluate enhanced biodegradation by oxygen releasing materials at a gasoline-contaminated site. *Environmental Science and Technology*, *43*, 2029-2034.

Baldwin, B. R., Nakatsu, C. H., Nebe, J., Wickham, G., Parks, C., & Nies, L. (2009). Enumeration of aromatic oxygenase genes to evaluate biodegradation during multi-phase extraction at a gasoline-contaminated site. *J. Hazardous Materials*, *63*, 524-530.