

Curriculum Vitae
Mary Joyce A. Dinglasan-Panlilio

Assistant Professor

Interdisciplinary Arts and Sciences Program
University of Washington, Tacoma
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EDUCATION

- Graduate **Ph.D.**, Environmental Chemistry, 2008, University of Toronto.
Thesis: Biodegradation of Fluorotelomer Compounds as a Source
of Perfluorinated Acid Formation in the Environment.
S. A. Mabury and E. A. Edwards. Supervisors
- Graduate **M.Sc.**, Environmental Chemistry 2002, University of Toronto.
Thesis: Enrichment, Characterization and Isolation of 1,2-
Dichloroethane Degrading Microbial Cultures Under Various
Conditions.
E. A. Edwards and S. A. Mabury, Supervisors.
- Undergraduate **B.Sc.** Human Biology Specialist, 2000, University of Toronto.

ACADEMIC POSITIONS

Assistant Professor of Environmental Science - University of Washington Tacoma (2008 – Present)

Acting Assistant Professor of Environmental Science - University of Washington Tacoma (2007-2008)

RESEARCH

Primary research focus involves investigation of sources and environmental fate of emerging contaminants including fluorinated organic chemicals from industrial and commercial products, study of the metabolites and degradation pathways of these compounds under abiotic and biotic conditions.

REFEREED PUBLICATIONS (* undergraduate students)

Dinglasan-Panlilio, M.J., *Prakash, S., Baker, J.E. “Perfluorinated Compounds (PFCs) in the Surface Waters of Puget Sound, Washington and Clayoquot Sound, British Columbia”. *Marine Pollution Bulletin*. 2014. 1-2:173-180.

Dinglasan-Panlilio, M.J., Chang, D. and Wetzstein, L. “Incorporating a service-learning project in upper division environmental chemistry course – Partnership with a local middle school”, *Curriculum for Bioregion-Activity Collection [Internet]*. 2013 Available from: <http://serc.carleton.edu/bioregion/activities.html>

Burgard, D. A., Fuller, R., Becker, B., *Ferrell, R., and **Dinglasan-Panlilio, M.J.** “Potential trends in Attention Deficit Hyperactivity Disorder (ADHD) drug use on a college campus: Wastewater analysis of amphetamine and ritalinic acid”, *Science of The Total Environment*, 2013. 450-451: 242-249.

Phillips, M.M., **Dinglasan-Panlilio, M. J.**, Mabury, S.A., Solomon, K.R. and Sibley, P.K., "Chronic toxicity of fluorotelomer acids to *Daphnia magna* and *Chironomus dilutus*." *Environmental Toxicology and Chemistry*. 2010. 29(5): 1123-1131.

Phillips, M.M., **Dinglasan-Panlilio, M. J.**, Mabury, S.A., Solomon, K.R. and Sibley, P.K., "Fluorotelomer acids are more toxic than perfluorinated acids." *Environmental Science and Technology*. 2007. 41(20): 7159-7163.

Hirschorn, S.K., **Dinglasan-Panlilio, M.J.**, Edwards E.A., Lacrampe-Couloume, G., Sherwood Lollar, B. "Isotope analysis as a natural reaction probe to determine mechanisms of biodegradation of 1,2-dichloroethane" *Environmental Microbiology*. 2007.9(7): 1651-1657.

Dinglasan-Panlilio, M.J., Mabury, S.A. "Significant Residuals Fluoroalcohols Detected from Various Fluorinated Materials." *Environmental Science and Technology*. 2006. 40(5):1447-1453.

Dinglasan-Panlilio, M.J., Dworatzek, S., Mabury, S.A., Edwards, E. A. "Microbial oxidation of 1,2-dichloroethane under anoxic conditions with nitrate as electron acceptor in mixed and pure cultures." *FEMS Microbial Ecology*. 2006. 56(3) 355-364.

Hirschorn, S., **Dinglasan, M.J.**, Elsner, M., Mancini, S., Lacrampe-Couloume, G., Edwards E.A., Sherwood Lollar, B. "Pathway Dependent Isotopic Fractionation During Aerobic Biodegradation of 1,2-Dichloroethane." *Environmental Science and Technology*. 2004. 38(18): 4775-4781.

Dinglasan, M.J., Ye, Y., Edwards, E.A., Mabury, S.A. "Fluorotelomer Alcohol Biodegradation Yields Poly- and Perfluorinated Acids." *Environmental Science and Technology*. 2004. 38(10): 2857-2864.

In Preparation

Dinglasan-Panlilio, M.J., Mabury, S.A. "Biodegradation of Various Fluorinated Monomers and Surfactants as Source of Perfluorinated Acid Production in the Environment". *Chemosphere*. (In-Prep)

Dinglasan-Panlilio, M.J., Wetzstein, L., *Marlowe, D., *Reed-Harmon, G., *Jennings, A., Chang, D. "The Effects of a K-12 and University Partnership on Student's Connection to Place and Environmental Stewardship." *Journal of Environmental Education* (In-Prep).

Published Abstracts and Presentations

Burgard, D. A., Fuller, R., Becker, B., *Ferrell, R., and **Dinglasan-Panlilio, M.J.** Trends in Attention Deficit Hyperactivity Disorder (ADHD) drug use on a college campus: as evidenced through wastewater analysis. Presented at American Chemical Society National Meeting. April 7-11 2013. New Orleans, Louisiana. Poster Presentation

*Prakash, S., Baker, J.E. and **Dinglasan-Panlilio, M.J.** Baseline Measurement of Perfluorinated Acids in Surface Waters from the Puget Sound Region. Presented at the University of Washington Waters Symposium. April 18, 2011. Seattle, Washington. Poster Presentation.

*Prakash, S., Baker, J.E. and **Dinglasan-Panlilio, M.J.** Baseline Measurement of Perfluorinated Acids in Surface Waters from the Puget Sound Region. Presented at the Pacific Northwest Chapter Meeting of Society of Environmental Toxicology and Chemistry (SETAC). April 15, 2011. Vancouver, Washington. Platform Presentation.

*Prakash, S. and **Dinglasan-Panlilio, M.J.** Perfluorinated Carboxylic Acids in Surface Waters from the Puget Sound Region. Presented at the Society of Environmental Toxicology and Chemistry (SETAC) 32nd Annual North America Meeting. November 7-11, 2010. Portland, Oregon. Poster Presentation. Awarded Best Student Poster Presentation in the Undergraduate Category.

*Yeam, J. and **Dinglasan-Panlilio, M.J.** Investigation into the hydrolytic stability of polyfluorinated compounds. Presented at the Society of Environmental Toxicology and Chemistry (SETAC) 32nd Annual North America Meeting. November 7-11, 2010. Portland, Oregon. Poster Presentation.

*Prakash, S. and **Dinglasan-Panlilio, M.J.** Measurement of Perfluorinated Acids from Water Samples from Quarter Master Harbor, Puget Sound. 12th Annual University of Washington Undergraduate Research Symposium. May 15, 2009. Seattle, Washington. Poster Presentation.

Dinglasan-Panlilio, M. J. and Mabury S. A. “Biodegradation of Fluoro Telomer Monomers - Importance of Linkages”. Presented at the Society of Environmental Toxicology and Chemistry (SETAC) 27th Annual North America Meeting. November 5-9, 2006. Montreal, Canada. Poster Presentation.

Dinglasan-Panlilio, M. J. and Mabury S. A. “Biodegradation of Fluorotelomer Based Monomers: Are linkages important?” Presented at Fluoropolymer, 2006 October 15-18, 2006. Charleston, South Carolina. Poster Presentation.

Hirschorn, S., **Dinglasan-Panlilio, M.J.**, Edwards, E., Lacrampe-Couloume, G. and Sherwood Lollar B. “Multi-Isotope Analysis as a Natural Reaction Probe of Biodegradation Mechanisms of 1,2-Dichloroethane.” Presented at American Geophysical Union, December 11-15 2006, San Francisco, California. Platform Presentation.

Hirschorn, S., Mancini, S., **Dinglasan-Panlilio, M.J.**, Lacrampe-Couloume, G., Edwards, E. and Sherwood Lollar B. “Stable Isotopic Fractionation and Enzymatic Mechanisms of Aerobic 1,2-Dichloroethane Biodegradation.” Presented at Advances in Earth Science Research March 2-3 2006, Kingston, Canada. Platform Presentation.

Dinglasan, M. J. and Mabury S. “Residual Telomer Alcohols a Probable Source of Perfluorinated Acids in the Environment.” Presented at Dioxin 2005, August 20-26th 2005. Toronto, Canada. Platform Presentation.

Dinglasan, M. J., and Mabury S. “Evidence of 8:2 FTOH production from the biodegradation of 8:2 Telomer Methacrylate under Aerobic Conditions.” Presented at Fluoros Symposium, August 18-19th 2005. Toronto, Canada. Poster Presentation.

Dinglasan, M. J., Edwards E. and Mabury S. “Biodegradation of 8:2 Telomer Alcohol and 8:2 Telomer Acids Under Aerobic Conditions.” Presented at Fluoros Symposium, August 18-19th 2005. Toronto, Canada. Poster Presentation.

Dinglasan, M.J., Mabury, S. A. “Quantification of Residual Telomer Alcohols from Fluoropolymers: Sources of Telomer Alcohol Release to the Environment?” Presented at the 15 Annual Setac Europe Meeting. May 22-26 2005. Lille, France. Platform Presentation

Dinglasan, M.J., Mabury, S. A. and Edwards, E. A. “Enrichment, Characterization and Isolation of a Novel Nitrate-Reducing Bacterium growing on 1,2-dichloroethane”. Presented at the International Society of Microbial Ecology. August 21-27, 2004. Cancun, Mexico. Poster Presentation.

Dinglasan, M.J., Lam, S., Grostern, A., Sherwood Lollar, B., Sleep, B., Mabury, S.A., Edwards E.A., Cox, E., “Chlorinated Alkane Biodegradation Under Various Redox Conditions at Several Contaminated Sites.” Presented

at 4th International Conference on remediation of Chlorinated and Recalcitrant Compounds (Battelle Conference). May 2004. Platform Presentation.

Hirschorn, S.K., **Dinglasan, M.J.**, Elsner, M., Mancini, S., Lacrampe-Couloume, Edwards, E.A., Sherwood Lollar, B. "Effect of degradation pathway on isotopic fractionation during aerobic biodegradation of 1,2-dichloroethane." Presented at the 14th Annual Goldschmidt Conference. June 5-11, 2004. Copenhagen, Denmark. Poster Presentation.

Hirschorn, S., **Dinglasan, M.J.**, Elsner, M., Mancini, S., Lacrampe-Couloume, Edwards, E.A., Sherwood Lollar, B. "Bimodal distribution of enrichment factors during aerobic biodegradation of 1,2-DCA." Presented at Groundwater Quality 4th International Conference. July 19-22, 2004. Poster Presentation.

Dinglasan, M.J., Ye, Y., Edwards, E.A. and Mabury, S.A. "Biodegradation of 8:2 Telomer Alcohol Under Aerobic Conditions." Presented at the Society of Environmental Toxicology and Chemistry (SETAC) 24th Annual North America Meeting. November 9 to 13, 2003. Austin, Texas. Platform Presentation.

Hirschorn, S., Mancini, S., **Dinglasan, M.J.** Edwards, E.A., Lacrampe-Couloume, G. and Sherwood Lollar, B. "Variability in Stable Carbon Isotope Fractionation During Biodegradation of 1,2-Dichloroethane." Presented at the 3rd International Conference of Remediation of Chlorinated and Recalcitrant Compounds, May 20-23, 2002. Monterey, California. Platform Presentation.

Dinglasan, M.J., Mabury, S. A. and Edwards, E. A. "Anaerobic Biodegradation of 1,2-Dichloroethane Under Nitrate Reducing Conditions." Presented at the American Society for Microbiology 102nd General Meeting. May 19-23 2002. Salt Lake City, Utah. Poster Presentation.

Dinglasan, M.J., Mabury, S. A. and Edwards, E. A. "Characterization of Anaerobic 1,2-Dichloroethane Biodegradation Under Nitrate Reducing Conditions." Presented at the Society of Environmental Toxicology and Chemistry (SETAC) 22nd Annual North America Meeting. November 11-15 2001 Baltimore, Maryland. Poster Presentation.

Invited Talks and Presentations

Dinglasan-Panlilio, M.J., Chang, D. and Wetzstein, L. University of Washington Tacoma and First Creek Middle School Joint Monitoring and Stewardship Project. Presented at the Faculty Institute on "Sustainability and Service-Learning" The Curriculum for the Bioregion Initiative, the Washington Center and Washington Campus Compact. November 30, 2012. Seattle, Washington.

Dinglasan-Panlilio, M.J., Chang, D. and Wetzstein, L. University of Washington Tacoma and First Creek Middle School Joint Monitoring and Stewardship Project. Presented at the Foss Waterway Seaport and Service, Education and Adventure (SEA) SEA - Bay Watershed Education Training (BWET) Workshop for Environmental Educators. June 27-30, 2011. Tacoma,

University of Washington 2011 Water Symposium, "Fate and Transport of Perfluorinated Compounds in the Environment." April 18, 2011.

University of Washington, Department of Environmental and Occupational Health Sciences Seminar Series, "The concern over perfluorinated chemicals." January 29, 2009.

Washington State, Department of Ecology, Environmental Assessment Program Seminar Series, "The concern over perfluorinated chemicals." November 25, 2008.

United States Geological Society, Washington Water Science Center, Tacoma Seminar Series, "The concern over perfluorinated chemicals." November 18, 2008.

University of Washington, Tacoma Environmental Science Seminar Series, "To keep or not to keep your Teflon Pans? Fluorinated compounds and their associated environmental concerns." April 14, 2008.

GRANTS

Received

Make a Splash Grant, City of Tacoma 2013	(\$3,975) "UWT and First Creek Middle School Joint Monitoring Project"
Interdisciplinary Arts and Science Research, Teaching and Teaching Improvement - University of Washington Tacoma 2013	(\$2,947) "Quantifying Perfluorinated Precursor Compounds from Automotive Care Products"
Center for Leadership & Social Responsibility Faculty Innovation Grant, University of Washington Tacoma 2013	(\$1,500) "Curriculum Enhancement Grant for Organic Chemistry Sequence of Courses – Incorporation of Green Chemistry Concepts"
Washington Toxics Coalition 2012	(\$30,000) "Evaluation of Perfluorinated Compounds in Dust and Laundry Water in Households along the Columbia River"
University of Washington Tacoma Chancellor's Fund – 2012 Summer Research Development Program	(\$7,540 – one month summer salary) For preparation and development of a grant proposal for submission to NSF Career Grants
The Russell Family Foundation 2012	(\$35,000) "UWT and First Creek Joint Monitoring and Stewardship Project"
Make a Splash Grant, City of Tacoma 2010	(\$3,981) "UWT and First Creek Middle School Joint Monitoring and Stewardship Program"
University of Washington, Chancellor's Fund for Research and Scholarship 2010	(\$5,000) "Investigating the Contribution of Storm Water as a Source of Perfluorinated Acid Contamination in the Puget Sound"
The Russell Family Foundation 2010 (Co-PI – Implemented the project into curriculum of TESC 333 Environmental Chemistry)	(\$15,000) "First Creek Volunteer Monitoring and Stewardship Project" (joint proposal with Jim Gawel and Lia Wetzstein)
University of Washington Tacoma, Research Quarter Support, 2009	Release time to pursue research project entitled, "Elucidating the Role of Wastewater Treatment in the Dissemination of Perfluorinated Compounds in the Puget Sound Region"
University of Washington Tacoma, Chancellor's Fund for Research and Scholarship 2008	(\$5000) "Environmental Monitoring of Fluorinated Organic Contaminants in the Puget Sound Region"
University of Washington, Institute for Teaching Excellence 2008	(\$1000) Participant in teaching workshop to improve General Chemistry series of lectures by incorporating <i>Clicker</i> technology.
University of Washington Tacoma, New Program Development Grant 2008	(\$5,000) support for developing an Environmental Engineering Undergraduate Program (joint proposal

(Co-PI – wrote majority of the proposal and presented to the IAS faculty for approval)

Teaching Reduction-University of Toronto Fellowship 2005-2006

University of Toronto Fellowship 2005-2006

University of Toronto Fellowship 2003-2004

University of Toronto Fellowship 2002-2003

University of Toronto Open 2001-2002

with Jim Gawel)

(1 unit valued at \$5000)

(1 unit valued at \$4000)

(1 unit valued at \$5000)

(2 units valued at \$5000 each)

(2 units valued at \$5000 each)

HONORS AND AWARDS

Undergraduate Research Mentor Award Nominee (2009, 2013)

Chemistry Teaching Fellowship 2005-2006

Chemistry Teaching Fellowship 2005-2006

University of Washington, Seattle

Department of Chemistry, University of Toronto
Awarded certificate and cash prize of \$1800 for co-development of a laboratory component for CHM410/IES1410 Analytical Environmental Chemistry course

Department of Chemistry, University of Toronto
Awarded certificate and cash prize of \$1800 for the development of a series of lectures for CHM410/IES1410 Analytical Environmental Chemistry course

TEACHING

Introductory Chemistry
TESC 131
(S2012)

General Chemistry Series
TESC 141 (A2007, W2008, Su2009, A2010)
TESC 151 (W2008, A2008, W2010, W2011)
TESC 161 (S2008, S2009, A2009, S2011)

Organic Chemistry I
TESC 241
(A2011, A2012, A2013)

Environmental Chemistry
TESC 333
(W2009, W2010, F2012, W2012, S2012, W2013 S2013)

Redesigned the curriculum of this non-science major course and developed a new set of laboratory activities.

Developed and taught the entire introductory chemistry curriculum including the laboratory component of all three courses

Developed and taught the curriculum of this introductory organic course (One of a three part sequence).

Taught a modified curriculum that incorporated relevant environmental organic chemistry principles.

Analytical Chemistry with Environmental Applications
TESC 439
(S2012, A2013)

Developed and taught the curriculum of this laboratory intensive course.

Environmental Science Seminar Series
TESC 200
(A2009, W2013)

Organized seminar series open to the University of Washington, Tacoma community and the general public that covered a wide variety of environmental topics.

Undergraduate Research
TESC 499
(Su2008-Present)

Supervised and mentored undergraduate student research.

25 student-quarters, 60 credit hours

Directed Reading
TESC 498
(Su2012, S2008)

Supervised independent study of selected chemical principles.

2 student-quarters, 2 credit hours

Teaching Assistant's Training Program (TATP)
University of Toronto
Program Coordinator
August 2006 to June 2007

Responsible for training first year teaching assistants (TAs) from the science discipline across the three campuses of the University of Toronto. Designed, coordinated and facilitated professional development workshops and seminars and performed on-site teaching evaluations.

CHM410/IES1410 Analytical Environmental Chemistry
University of Toronto, Department of Chemistry
Lecturer and Course Coordinator
Fall Terms 2005 and 2006

Developed and delivered lectures and taught laboratory course component. Supervised a team of five teaching assistants and primarily responsible for administrative duties including liaising with the department.

CHM410/IES1410 Analytical Environmental Chemistry
University of Toronto, Department of Chemistry
Laboratory Coordinator
Fall Term (2003 and 2004)

Demonstrated a weekly three hour laboratory course component and supervised a team of teaching assistants.

SERVICE

Program

- IAS Faculty Council (2008-2010)
- Lower Division Chemistry Coordinator (2011-Present)
- Coordinator Science Supplemental Instruction Program (2008-present)
- Mary Cline Undergraduate Research Award Committee (2012)
- New Program Proposal for BS in Environmental Engineering (Co-Author with Jim Gawel) (2008)
- Science Building Renovation Committee (2013) – Construction of Clean Water Laboratory
- Science Building Renovation Committee (2008) – Renovation of Organic Chemistry Teaching Laboratory
- IAS Faculty Search Committee (2013) – two three-year Chemistry Lecturers
- IAS Faculty Search Committee (2012) – three-year Chemistry Lecturer
- IAS Faculty Search Committee (2011) - Biochemistry Tenure-Track Faculty,

- IAS Faculty Search Committee (2011) - Organic Chemistry/General Chemistry lecturer
- IAS Faculty Interview Committee (2010) –Mathematics Round I (interview committee member),
- IAS Faculty Interview Committee (2010) - biochemistry part-time lecturer,
- IAS Faculty Interview Committee (2010) - organic chemistry/general chemistry lecturer
- IAS Faculty Interview Committee (2008) – Physics Tenure-Track Faculty
- IAS Faculty Interview Committee (2008) – Mathematics Tenure-Track Faculty
- IAS Staff Search Committee (2012) –Scientific Instructional Technician I
- IAS Staff Search Committee (2011) –Scientific Instructional Technician I
- IAS Staff Search Committee (2008) – Instructional Lab Coordinator
- IAS Staff Interview Committee (2010) - Instructional Lab Coordinator
- Environmental Science curriculum development (2007-present)
- Environmental Program Faculty Mentor (2007-Present)
- IAS peer evaluation of faculty teaching (2007-Present)

University

- Math, Science and Leadership Program (MSL) (2009 – Present) –organized, designed and facilitated student activity for grades 7 curriculum
- University of Washington Tacoma Founders and Chancellors Grant Committee (2011)
- University Disciplinary Committee (2010-2011)
- Graduate Student Committee Member – Lauren Jennings (2009)
- Foundations of Excellence 2009- participating member in the Learning Dimensions group that evaluated the learning experience of UWT students in their first year of enrollment.
- UWT Husky Days 2008-2009 – assisted in these student recruitment events by providing tours of the Environmental Science Laboratories
- UWT Sneak Peek 2008 – assisted in providing information regarding the environmental science program to oncoming freshmen and their parents.
- UWT Calling Program 2008 – assisted in contacting transfer students and freshmen via telephone during their first quarter on campus to provide information and to obtain feedback on their experiences as new students on campus

Professional and Community

- Member of DuPont Biodegradation Supplemental Environmental Project National Review Panel (2010-Present)
- Advisory Board Member – “Puyallup Watershed Initiative – The Russell Family Foundation – (Nov 2012- May 2013)
- Committee Member – “First Creek Action Plan Stakeholders Committee- (Jul 2011-Dec 2011)
- Reviewer for *Environmental Science and Pollution* (2013-Present)
- Reviewer for *Water Research* (2012-Present)
- Reviewer for *Ground Water Monitoring and Remediation* (2011-Present)
- Reviewer for *Ecotoxicology and Environmental Safety* (2010-Present)
- Reviewer for *Applied Environmental Microbiology* (2009-Present)
- Reviewer for *Chemosphere* (2009-Present)
- Reviewer for *Environmental Science and Technology* (2006-Present)
- Reviewer for *Biological Engineering Transactions: American Society of Agricultural and Biological Engineers* (2006-Present)

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Chemical Society (2006-Present)

Society of Environmental Toxicology and Chemistry (2004 – Present)

American Society for Microbiology (2001-2002)