

CURRICULUM VITAE

Lorena Margarita Rios Mendoza

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Degrees:

Ph.D.: 2001 Coastal Oceanographic Sciences
(Marine Electrochemistry)
University Automous of Baja California. México.
Master of Sciences: 1994 Coastal Oceanography
(Marine Environmental Chemistry)
University Autonomous of Baja California. México.
B.S. 1989 Chemist
University National Autonomous of México.

Professional Experience:

June 2015- Associate Professor of Chemistry
Department of Natural Sciences
University of Wisconsin-Superior

2010- 2015 Assistant Professor of Chemistry
Department of Natural Sciences
University of Wisconsin-Superior

2002-2010 Visiting Researcher
Department of Chemistry,
University of the Pacific.

1995-2002 Researcher Assistant
Institute of Oceanological Investigations
(University Automonous of Baja California)

1995-2002 Professor
Faculty of Marine Sciences
University Autonomous of Baja California

Courses Taught:

No.	Courses	Credits
1	Quantitative Analysis Lecture (Chem 205)	3
2	Quantitative Analysis Lab (Chem 206)	2
3	General Chemistry II (lecture and Lab Chem 106)	4
4	General Chemistry I Lab (Chem 105)	0
5	Instrumental Analysis Lecture (Chem 375)	3
6	Instrumental Analysis Lab (Chem 376)	2
7	Descriptive Inorganic (Chem 365)	3
8	Chemistry of Natural Waters (lecture and lab Chem 300)	5

9	Chemistry of Everyday Phenomena (lecture and lab Chem 102)		5
10	Our Chemical Environment (Chem 100)		2
11	First Year Seminar- NCIS Forensic Science (FYS 107)		4
12	Senior Research (Chem 491)		1-4
13	Special Topic (Chem 281, 381, 481)		1-4
14	Senior Seminar in Chemistry (Chem 497)		1

Research Interests:

- Microplastic debris pollution in freshwaters and oceans
- Phthalates in water from plastic bottles
- Caffeine in Lake Superior waters
- Environmental chemistry pollution in freshwater system (The Great Lakes).
- Plastic debris in the Great Lakes, its role in accumulating and transporting POPs to aquatic organisms.
- Micropellets and fiber plastics on fish, freshwater, seawater, in open areas in Superior, WI and from different countries.
- Environmental contamination in seawater by Persistent Organic Pollutants (polychlorinated biphenyls, PCBs; polybrominated biphenyls and polybromated diphenyl ethers, PBBs & PBDEs; organochlorine pesticides, DDT, BHC, aldrin, etc), in sediments, tissues, and plastic samples.
- Environmental contamination in oceanic sediments by trace metal.
- Systems of Wastewater Treatment Plants.
- Instrumentation of Analytical Chemistry (GC-MS, HPLC, AA, CHON analysis particle size, FTIR Micro).
- Molecular modeling (CADD) to identify POPs which function as endocrine disrupters and which are transported by plastic debris and consumed by marine organisms.

Peer-Refereed Publications:

1. **Lorena M. Rios Mendoza**, Hrissi Karapanagioti, Nancy Ramirez Alvarez. **2018**. Micro(nanoplastics) in the marine environment: Current knowledge and gaps. *Current Opinion in Environmental Science & Health*, 1: 47-51
<https://doi.org/10.1016/j.coesh.2017.11.004>
2. Stephanie Avery-Gomm, Michelle Valliant, Carley R. Schacter, Katherine F. Robbins, Max Linoiron, Pierre-Yves Daoust, **Lorena M Rios**, Ian L. Jones. **2016**. A study of wreckedDovekies (*Alle alle*) in the western North Atlantic highlights the importance of using standardized methods to quantify plastic ingestion. *Marine Pollution Bulletin* 113, 75-80. <http://dx.doi.org/10.1016/j.marpolbul.2016.08.062>
3. **Lorena M. Rios Mendoza** and Patrick R. Jones. **2015**. Characterization of microplastic and toxic chemicals extracted from microplastic samples from the North Pacific Gyre. *Environmental chemistry*. <http://dx.doi.org/10.1071/EN14236>
4. Chelsea M. Rochman, Mark Anthony Browne, Benjamin S. Halpern, Brian T. Hentschel, Eunha Hoh, Hrissi K. Karapanagioti, **LorenaM. Rios**, Hideshige Takada, Swee Teh, Richard C. Thompson. **2013**. Classify plastic debris as hazardous. *Nature* Vol 494,169 – 171.

5. **Lorena M. Rios**, Patrick R. Jones Charles Moore, and Urja V. Narayan. **2010**. Quantitation of Persistent Organic Pollutants Adsorbed on Plastic Debris from the Northern Pacific Gyre's "eastern garbage Patch." *J. Environ. Monit.* 12, 226-2236.
6. Macías-Zamora, J. Vinicio., Sánchez-Osorio J. Luis, Ramírez-Alvarez, Nancy, and **Ríos-Mendoza Lorena**. . **2008**. PCBs and DDTs at the South of the Southern California Bight. Distribution and origin. *Organohalogen Compounds* 70:2372-2376
7. Macías-Zamora, J. V., Sánchez-Osorio J. L., **Ríos-Mendoza L.M.**, Ramírez-Alvarez, N., Huerta-Díaz M.A., and López-Sánchez, D. **2008**. Trace Metals in Sediments and *Zostera marina* of San Ignacio and Ojo de Liebre Lagoons in Central Pacific Coast of Baja California, Mexico. *Environmental Contamination and Toxicology. In Archives of Environment Contamination and Toxicology.* 55(2):218-228.
8. **Rios, Lorena M.**, Moore, Charles. Jones, Patrick R. **2007**. Persistent organic pollutants carried by synthetic polymers in the ocean environment. *Mar. Pollut. Bull.* 54,1230-1237.
9. **Rios-Mendoza Lorena M.**, J. Vinicio Macias-Zamora, Alberto, R. Zirino. **2003**. Una opción para medir el potencial redox *Ciencias Marinas*, 29(4):509-520.
10. Gutierrez-Galindo, E.A., **Rios-Mendoza, L.M.**, Villaescusa-Celaya, J. **1998**. Chlorinated Hydrocarbons in Marine Sediments of The Baja California (México)-California (USA) Border Zone. *Mar. Poll. Bull.*, 36[1]:27-31.
11. Holm-Hansen O., Hewes, D. Ch., Maturana, J., **Rios-Mendoza, L.M.**, Gónzales-Rodas, G. **1997**. AMLR program: Phytoplankton Distribution and its Relationship to Different Water Zones Characterized by Physical Oceanographic Parameters, January-February 1997. *Antartic Journal of the United States*.

Book Chapter:

1. **L.M. Rios Mendoza**, S. Taniguchi, H.K. Karapanagiot (2017). Advanced Analytical Technique for Assessing the Chemical Compounds Related to Microplastics. *Comprehensive Analytical Chemistry*, 75: 209-240.
<https://doi.org/10.1016/bs.coac.2016.11.001>

Non-Peer Publications:

1. **Lorena M Rios Mendoza**. **2017**. Macro and Microplastic Debris Pollution in the Oceans and the Great Lakes. In: Addressing Environmental Risks. 50 years of applied research, student experience and community outreach. Albert B. Sickas and Mary D. Balcer (eds). UWS-LRSI. 228-229.
2. **Lorena M Rios Mendoza**. Council of Public Liberal Arts Colleges (COPLAR). **2016**. Microplastic pollution in the Great lakes and Oceans research at UWS.
3. UpClose questions for **Dr. Lorena M Rios Mendoza**. December 15, **2015**. Issue 10. Illinois Indiana Sea Grant
4. **Lorena M. Rios**, Mary Balcer, and Patrick Jones. **2014**. Microplastic Pollution in the Great Lakes. Lake Superior Angler Magazine.

Exhibition Text:

1. **Dr. Lorena Rios** in conversation with Christina Battle. Proof of Performance at the Gallery TPW. 2017. Toronto, Canada. <http://gallerytpw.ca/exhibitions/kelly-jazvac/>

Manuscripts:

1. **Rios Mendoza L. M.**, Evans C., Puthayangkul S., and Jones P. Assessment of plastic debris around to the Lake Superior (in progress)
2. Muñoz-Arriola, F, **L.M. Rios**, and V. Macias-Zamora. Vanadyl Etio Porphirins as Indices of Oil Pollution in Marine Sediment (in progress)
3. **Rios Mendoza L. M.**, Kristen Johnson. Plastic fibers in the air (in progress).

Research Grants:

1. Research grant Ecofootprint Enbridge 2017. \$41,330. Microplastics Pollution in Lake Superior: Undergraduate Research at UW-Superior.
2. Letter of Intent to WiSys Technology Foundation (**December, 2017**) Project: New Redox Sensor: Iridium (**invited to submit a full proposal**)
3. Proposal submitted to NOAA Marine Debris Prevention Program in collaboration with Dr. Tanzeem Ali. "Prevention of Plastic Debris Pollution in the Great Lakes" 2017(**in revision**)
4. **Co-PI** in a proposal to National Geographic (\$6,916). "Oceanic Manta Rays and Plastic Pollution in the Mexican Pacific" 2017(**granted**)
5. **Faculty Development Grant. 2017** (\$1000) to present "Microplastics and Microfibers in St. Louis River Estuary and Lake Superior" at the 6th International Marine Debris Conference in March 12-16, 2018.
6. **Proposal** "Plastic pollution in Wisconsin" to WiSys Technology Foundation, in collaboration with Dr. Tanzeem Ali (**not funded**)
7. Research grant Ecofootprint Enbridge 2016. \$85,000. Great Lakes Undergraduate Research Opportunities at UW-Superior.
8. Research Assistant Grant. 2015. \$3000. URSCA-Undergraduate Student. Plastic Research.
9. HIPs-URSCA Mini-grant. 2015.\$ 1500
10. University of Michigan. 2014-2015. \$26,670. Microplastics in the Great Lakes: Towards establishing a long-term multidisciplinary research platform to assess the impact of microplastics on Laurentian Great Lakes ecosystem health. Co-PI.
11. URSCA-UWS 2015. \$3,000. Analysis of plastic debris from the North Pacific Ocean collected during summer 2014.
12. Learning Technology Development. 2011. Grant \$7,498. Google MyMaps GPS and data mash-up to develop students skill in chemical analysis data visualization and hypothesis testing on plastic debris along the Lake Superior shoreline.

Awards:

1. Making a Difference. Three times nominated by three different students. 2014-2015.
2. Faculty Mentor of the Year. Mentoring two UWS McNair Scholars students. 2015.

Capstone (Undergraduate Research):

1. Valentin Salas.(in progress) Microplastic WWTPs.
2. Chia-An Lin (in progress) microfibrers in the air (worldwide samples)
3. Vanessa Gonzales (in progress).Microplastic ingestion

4. Cooper Osterling (in progress). Analytical Instrumentation.
5. Alex Zosel (in progress). Microplastic fibers rivers.
6. Maryelle Nyeck Nyeck (in progress). Caffeine in effluent water from wastewater treatment plants: Tow Harbors, MN, Superior, WI, Bayfield, WI, Ashland, WI, Washburn, WI.
7. Cera Johnson (2017). Effects of microplastics on the behavior of *Danio Rerio*.
8. Tyler Jasper (2017). Determining the Composition and Surface Area of Micro-plastics and Microfibers.
9. Felagot Abebe (2017). Microplastic in core sediments from Lake Superior.
10. Ernesto Soto (2017). Prevalent Drug in Dollar Bills.
11. Lei Shi (2017). Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OE) and Inductively Couple Plasma Mass Spectrometry (ICP-MS).
12. Kanishka Wijesekera (2016). UWS. Impact of microplasitcs on *Daphnia* and algae.
13. Jasmin Farmakes (2016). UWS. Caffeine and p-Xanthine in the surface waters of the St. Loius River Estuary.
14. Zachary Bauer (2016). UWS. Analysis of lead content in fired cartridges.
15. Joseph Ripley (2015) UWS. Microplastics ingested by fish.
16. Kristen Johnson (2015). UWS. Microplastics in the air.
17. Joseph Madison (2014). UWS. Determination of polyethylene microplastics present in cosmetic products.
18. Cole D. Holstrom (2014). UWS. Heavy metals analysis of a Duluth-Superior Harbor core sample.
19. Sapanna Putthayangkul (2014). University of Wisconsin Superior. Extraction and quantification of phthalates from drinking water contained in plastic bottles.
20. Jeanine Janowski (2013). University of Wisconsin Superior. Caffeine analysis in Lake Superior water.
21. Clarissa Kelly (2013). Ghanaian Plastic (Republic of Ghana).
22. Chi-Yeon Evans (2013). Analysis of plastic samples from the Great Lakes and South Atlantic Ocean.
23. Jeanine Janowski (2013). Caffeine content analysis in Lake Superior water.
24. Urja V. Narayan (2006), Univeristy of the Pacific. Quantitative analysis of persistent organic pollutants on plastic debris in the Ocean.
25. Amy N. Bellinger (2005). University of the Pacific. Persistent organic pollutants adsorbed onto plastic debris.
26. Kristie Hoyt (2004), University of the Pacific. Pollution carried by synthetic polymers in the ocean
27. Gerardo Castillo (2003), University of the Pacific. Microplastics in the Ocean.

Experience (Field):

- Participation in the collection of plastic debris samples from Bay Todos Santos in Ensenada, Baja California, Mexico. Summer 2016 and 2017, aboard of the R/V Alguita.
- Participation in the collection of plastic debris samples on the North Pacific Ocean aboard of the R/V Alguita, (June 29 to August 15, 2014)
- Participation in the collection of plastic debris samples on the Great Lakes on board of Sea Dragon from Pangaea Expolarion (summer-2013).
- Participation in the collection of plastic samples on the Great Lakes on board the Flagship Niagara (summer-2012).

- Participation in the Antarctic Marine Living Resources (AMLR) Program, funded by NOAA (National Oceanic and Atmospheric Administration) on the Russian Research Vessel *Yuzhmorgeologiya*. Antarctic (January-February, **1997**).
- Participation in multiple oceanographic research cruises on the research vessel R/V Alguita (Algalita Marine Research Foundation from **1995 to 2017**).
- Participation in several cruises on the oceanographic research vessel R/V Francisco de Ulloa (CICESE-Mexico, **1995 to 2002**).

Other Scholarly Activities:

1. **Scientific expert** in JPI Oceans Microplastic review panel for European Union (Brussels, Belgium) (The Joint Programming Initiative Healthy and Productive Seas and Oceans is a coordinating and integrating platform at European Union) **2015-2017**.
2. **The Great Lakes Land-based Marine Debris Action Plan. NOAA Report (2016 Action Summary) January 2017**. This action plan consists of 53 actions which are to be completed within five years (2014-2019).
3. **PhD.Thesis Committee**. Title “El impacto de los plásticos flotantes en los vertebrados marinos del Océano Pacífico”. Instituto Politecnico Nacional. Centro Interdisciplinario de Ciencias Marinas. La Paz, Baja California, México.
4. American Chemical Society, Lake Superior. Position: **Elected Chair and Chair 2012, 2013, 2016, 2017**.
5. **Reviewer** (anonymous) of a peer review journals: Marine Pollution Bulletin, International J. of Environmental Analytical Chemistry, Journal of Great Lakes Research, Environmental Science and Technology, Int. J. Environ. Res. Public Health, Science of the Total Environment, Archives of Environmental Contamination and Toxicology, Environmental Science and Pollution Research, Environmental Monitoring and Assessment, Analytical Chemistry, Environmental Pollution, Marine Technology, Environmental Chemistry.
6. **Scientific expert** in International Joint Commission (IJC) Canada, **2016**.
7. **Reviewer** for SNSF (Swiss National Science Foundation), NSF, Sea Grant, NOAA, Natural Sciences and Engineering **Research Council of Canada**, and **Hudson River Foundation** proposals.
8. **Board adviser** to the Algalita Marine Research and Education (**since 2005**)
9. Women and Science Advisory **Board representing UW-Superior (since 2011)**.
10. **Participation** at St. Louis River AOC BUI Technical Teams (**2011-2012**)
11. **Reviewer** in: Honolulu Strategy: A Global Framework for the Prevention and Management of Marine Debris (**2011**).
12. **Guest Editor**. Special Issue “POPs in Water Environment” of Water. MDPI (Molecular Diversity Preservation International) publisher.
13. **Academic Expert** in European Commission Environment. Plastic Waste in the Environment. **August 2010**
14. **Reviewer** in: Gordon Miriam, "Eliminating Land-Based Discharges of Marine Debris in California: A Plan of Action from the Pastic Debris Project." **June 2006**. California Coastal Commission, LARWQCB & SWRCB.
15. **Thesis Committee**. Defense Doctor of Philosophy. Title “Effects of Chemical and Mechanical Wathering Process on the Degradation of Plastic Debris on Marine beaches. University of Western Ontario. **2012**. London, Canada.

Participation Microbead Legislation:

1. Wisconsin State

2. Minnesota State

Presentations (2005-2017)

Date	Conference	Title	Place
August 18, 2017	Museo del Caracol	Microplasticos contaminantes emergentes: una nueva Fuente de compuestos toxicos en agua de mar y en los Grande Lagos.	Ensenada, BC. Mexico
July 24-25, 2017	10 th Annual WSTS	Macro and Micro Plastic Debris: Oceans and the Great Lakes.	UW-Platteville
May 31-June 1, 2017	2017 Emerging Contaminants in the Aquatic Environment Conference	Microplastics: small particles with huge environmental impacts	Champaign, IL
May 15-19, 2017	60th Annual International Association for Great Lakes Research Conference	Microplastic particles and their environmental impacts in our freshwater systems	Detroit, MI
May 2, 2017	Harbor City High School	Microplastics emergent contaminants: A new source of toxic compounds in waters from Great Lakes and Oceans.	Duluth, MN.
March 14-15, 2017	St Louis River Summit	Small plastic particles with huge environmental impacts in our freshwater systems	UW-Superior, Superior, WI
Feb 21, 2017	Science on Tap	Microplastics emerging contaminants: A new source of toxic compound in waters from Great Lakes and Oceans.	Ashland, WI
Feb 16, 2017	"Bag it" community education event about plastic pollution	Panel discussion on plastic pollution	Duluth, MN
Feb 16, 2017	Superior Public Library	Plastics in the environment: souces, impacts and solutions	Superior, Wi
Jan 16, 2017	City of Superior Environmental Services event	Are you eating plastic fish?	Superior, WI
Dec 7, 2016	UMD Black Student Association STEM event	Microplastic emerging contaminants: a new source of toxic compounds in waters of the Great Lakes and oceans	UM-Duluth, Duluth, MN
November 23, 2016	Superior Rotary Club	Microplastic emerging contaminats: a new source of toxic compounds in waters from Great Lakes and Oceans.	Superior, WI
October 31, 2016	University of Duluth Minnesota	Macro and Micro Plastic Debris: Pacific Ocean and the Great Lakes	Duluth, MN
October 19, 2016	Science Café- ACS	Macro and Micro plastic debris in the Pacific Ocean and the Great Lakes	Two Harbors, MN
October 18, 2016	Girl Scout Troop Lafayet Community Club	Emerging contaminants in the Great Lakes: Microplastics.	Duluth, MN
October 12, 2016	Science Cafe	Problems and Solutions to plastic pollution in the St Louis River Estuary and Beyond	Duluth, MN
August 5, 2016	UniversidadAutonama de Baja California- IIO	Macro and Microplastics en sedimentos y en las aguas superficiales a lo largo de Baja California, Mexico.	Ensenada, Baja California. Mexico
June 10, 2016	International Association for Great Lakes Research (IAGLR). Annual meeting	Microplastics as a source of persistent organic pollutants in the Laurentian Great Lakes	Guelph, Ontario. CA
April 25-27, 2016	Join International Commission (IC), Canada	Adsoption of POPs onto microplastics and impacts on fresh water aquatic organisms	Windsor, Ontario, Canada
April 7-8, 2016	Marine Debris Training for Freat Lakes Sea Grant Workshop	Emerging contaminants in the Great Lakes: Microplastics	Ann Arbor, MI
March 14, 2016	Miami Dade College	Macro and Micro plastic debris: Oceans and the Great Lakes	Miami, Florida
October 25, 2015	Nicolet Technical College Series of Learning	Microsynthetic plastics emerging contaminants in the Great Lakes	Rhineland, WI
October 23, 2015	Michigan Technological University	Microsynthetic Plastics emerging contaminants in the Great Lakes	Houghton, MI
Sep 5, 2015	Alliance for the Great Lakes	Microplastic Debris in the Great lakes	Duluth, MN
Sep 25, 2015	Harbor City International School	Macro and Micro plastic debris: Oceans and the Great Lakes	Duluth, MN
August 14, 2015	Speaking Engagement	Microplastics emerging contaminants: a new source of toxic compounds	Minong, Wisconsin

August 11, 2015	WI Industrial Waste	Emerging Micropollutants: Synthetic Microplastics	Oshkosh, Wisconsin
June 8, 2015	NOAA Great Lakes Education Workshop	Macro and Micro plastic debris: Oceans and the Great Lakes	Stone Lab: Ohio State University
May 25-29, 2015	International Association for Great Lakes Research (AGLR) Annual Meeting	Microsynthetic plastics in air, water, fish and sediments in the Great Lakes	University of Vermont in Burlington, Vermont
May 25-29, 2015	International Association for Great Lakes Research (AGLR) Annual Meeting	Are we breathing plastics?	University of Vermont in Burlington, Vermont
May 25-29, 2015	International Association for Great Lakes Research (AGLR) Annual Meeting	Persistent Organic Pollutants on Microplastic Debris from the Great Lakes	University of Vermont in Burlington, Vermont
April 27, 2015	ACS banquet Lake Superior	Microplastic emerging contaminants: a new source of toxic compounds	St. Scholastica University, Duluth, MN
March 27, 2015	World Water Week at UWS	Emerging micro-pollutant: water in plastic and plastic in water	UWS at Superior, Wisconsin
March 9, 2015	Scholars Series Seminars	Emerging micro-pollutant: synthetic microplastics	UW Fox Valley, Menasha, WI
April 23, 2015	12 th Annual Posters in the Rotunda. Undergraduate Research	Are we Breathing Plastics?	Rotunda Madison, WI
March 22-26, 2015	249 th ACS National Conference	Microplastic emerging contaminants: a new source of toxic compounds	Denver, CO
May 26-30, 2014	International Association for Great Lakes Research. 57 th Annual Conference on Great Lakes Research.	"Microplastics in the Great Lakes: Towards establishing a long-term multidisciplinary research platform to assess the impact of microplastics on Laurentian Great Lakes ecosystem health"	McMaster University. Hamilton Ontario.
April 24, 2014	UW-Symposium of URSCA	Synthetic Plastics in the Environment of Lake Superior.	UW- Milwaukee,
April 16, 2014	Annual Day of Celebration of URSCA	Fish and Plastics in the Great Lakes.	UW-Superior
April 16, 2014	Annual Day of Celebration of URSCA	Is there Plastic Contamination in Baby Medicines?	UW-Superior
April 16, 2014	Annual Day of Celebration of URSCA	Fish and Plastics in the Great Lakes.	UW-Superior
April 16, 2014	Annual Day of Celebration of URSCA	Synthetic Plastics in the Environment of Lake Superior.	UW-Superior
Mar 16-20, 2014	247 th American Chemical Society National Meeting	Synthetic microplastics in the Great Lakes: Are fish eating them?	Dallas, Texas
March 28, 2014	Lake Superior Binational Forum Public Meeting	Plastic Microbeads in Fish and Water	Superior, WI
Nov 6, 2013	Twin Ports Freshwater Folk	Microplastics in the Great Lakes, is it an issue?	MPCA. Duluth, MN
May 7, 2013	Lake Superior Workgroup	Plastic Pollution on the Great Lakes	Web-Conference Great Lakes
April 19, 2013	Research Symposium Chemistry and Biochemistry	Ghanaian Plastic	University of Wisconsin Milwaukee
April 19, 2013	Research Symposium Chemistry and Biochemistry	Plastic Samples from the Lake Erie and South Atlantic Ocean Raises Environmental Concerns.	University of Wisconsin Milwaukee
April 11, 2013	National Conference on Undergraduate Research	Plastic Samples from the Lake Erie and South Atlantic	University of Wisconsin LaCrosse
April 7-11, 2013	245 th American Chemical Society National Meeting.	Plastics are invading not only the ocean but also the Great Lakes	New Orleans, LA
March 19, 2012	University of Arizona	Persistent Organic Pollutants Adsorbed onto Pelagic Plastic Debris	University of Arizona
April 27, 2012	12 th Annual Symposium for Undergraduate Research and Creative Activity. UW System	Plastics: The Latest Invasive Synthetic "Species" Disturbing Lake Superior	University of Wisconsin Parkside
January 11, 2011	Environment Protection Agency, MED Seminar	Quantitative Analysis of POPs in Plastic Debris in the Ocean	EPA, Mid-Continent Ecology Division, Duluth, MN
July 22, 2011	NOAA meeting about Great Lakes Debris	Great Lakes Debris: A Freshwater Issue.	The John Shedd Aquarium. Chicago
Oct 19-22, 2011	46 th Midwest 39 th Great Lakes Joint Regional American Chemical Society	Plastic Debris: Is Lake Superior Invaded by Synthetic Polymers	Saint Louis, MO

August 16, 2011	Teachers Workshops	Science Institute for Educators. Great Lakes Aquarium	Duluth, MN
Jun 21, 2011	Great Lakes Shipboard and Shoreline Science Workshop	Center for Ocean Sciences education Excellence (COSEE) Great Lakes and USEPA	Duluth, MN
March 20-25, 2011	Fifth International Marine Debris Conference	Macro and mirco plastic debris adsorb and transport endocrine disrupters in the ocean	Honolulu, HI
Jun 1-5, 2008	ASMS 56 th	Endocrine Disrupters Adsorbed on Macro and Micro Plastic Debris in the Ocean	Denver, Colorado
March 28, 2008	Second workshop of Marine Research on Baja California	Synthetic Polymers on the Marine Environment: Quantification of POPs and Endocrine Disrupting Chemicals	Ensenada, Baja California Mexico
March 28, 2008	Second workshop of Marine Research on Baja California	Endocrine Disrupter adsorbed on plastic debris and its environmental implications on fish	Ensenada, Baja California Mexico
October 2, 2007	Distinguished Lecture Series on Marine Debris	Quantitative Analysis of POPs in Plastic Debris in The Ocean	University of Hilo, Hawaii.
May-Jun1, 2006	ASMS 54 th	Quantitative Analysis of POPs Plastic Debris in the Ocean	Seattle WA
May 12-13, 2006	Southern California Academy of Sciences Symposium.	QUANTITATIVE ANALYSIS OF POPS IN PLASTIC DEBRIS IN THE OCEAN	Malibu, CA
May 6, 2006	Sixth Annual Pacific Undergraduate Research & Creativity Conference.	What is the PLASTIC that has invaded the Ocean?	UOP Stockton, CA
May 6, 2006	18 th Annual Northern California American Chemical Society	What is the PLASTIC that has invaded the Ocean?	San Jose, CA
September, 2005	Plastic Debris, Rivers to Sea Conference	POP's on Plastic Debris	Redondo Beach, Los Angeles, CA
April, 2005	5th, Annual Pacific Undergraduate Research & Creativity Conference	Pollution carried by synthetic polymers in the ocean	UOP Stockton, CA
April, 2005	17 th Annual Northern California Conference of the American Chemical Society	Pollution carried by synthetic polymers in the ocean	Oakland, CA