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AUREA C. CHIAIA-HERNANDEZ R.

EDUCATION:

March 2009 – July 2013

Ph. D. in Environmental Systems Science - ETH Zurich, Switzerland

Dissertation: *Temporal Records of Organic Contaminants in Lake Sediments, their Bioconcentration and Effect on Daphnia Resting Eggs*

Dissertation committee: Professor Juliane Hollender (ETH), Professor Bernhard Wehrli (ETH), PD Piet Spaak (Eawag), and Professor Lee Ferguson (Duke University)

September 2006 – September 2008

M. S. in Chemistry - Oregon State University, USA

Dissertation: *Large Volume (1,800 µL) Injection HPLC/MS/MS for the Quantitative Determination of Illicit Drugs and Human Urinary Biomarkers in Municipal Wastewater*

Dissertation committee: Professor Jennifer A. Field, Professor Vince Remcho, Professor Dan Sudakin and Professor Brady Gibbons (Chair)

March 2001 – March 2006

B. S. in Chemistry - Oregon State University, USA
(Including two years at Long Island University, USA)

ACADEMIC POSITIONS HELD:

Post-Doctoral Research Fellow, February 2018 – present

Institute of Geography and Oeschger Center for Climate Change Research, University of Bern – Paleolimnology Group.

- *Project title:* Pesticides in lake sediments on the Swiss Plateau (Interfaculty Cooperation Project “One Health”)
- Collaborators: Prof. Dr. Martin Grosjean, Prof. Dr. Matthias Erb, Dr. Klaus Schläppi, Prof. Dr. Siegfried Hapflmeier, Dr. Moritz Bigalke, and Dr. Daniel Berset

Post-Doctoral Research Fellow, January 2017 – January 2018

Swiss Federal Institute of Aquatic Science and Technology (Eawag) - Department of Sedimentology, Dübendorf, Switzerland

- *Project title:* *Evaluating organic contaminant fluxes in sediments of Lake Greifensee*
- Collaborators: Prof. Dr. Nathalie Dubois

Post-Doctoral Research Fellow, October 2014 – December 2016

Swiss Federal Institute of Aquatic Science and Technology (Eawag) - Department of Environmental Chemistry

- *Project title:* *Early detection of future organic contaminants in the environment (FROSCH)*
- Collaborators: Prof. Dr. Juliane Hollender (Eawag), Dr. Thomas Bucheli (Agroscope) PD. Dr. Martin Scheringer (ETH Zurich), and Prof. Dr. Pablo Lara-Martin (Uni. Cadiz)

Post-Doctoral Research Fellow, January 2014 – April 2014

Department of Safety and Environmental Technology Group-Institute for Chemical and Bioengineering, ETH Zurich (*Last months of pregnancy before maternity leave*)

- *Project title:* Classification of substances potentially toxic, persistent in the environment and bioaccumulative in food chains
- Collaborator: PD. Dr. Martin Scheringer (ETH Zurich)

Graduate Research Assistant, March 2009 – December 2013

Swiss Federal Institute of Aquatic Science and Technology (Eawag) - Department of Environmental Chemistry

- Project title: Organic contaminant in lake sediments and their bioconcentration in *Daphnia* resting eggs
- Supervisor: Prof. Dr. Juliane Hollender

Graduate Research Assistant, September 2006 – January 2009

Oregon State University, Department of Chemistry - Department of Environmental and Molecular Toxicology

- Project title: Determination of illicit drugs and human urinary biomarkers in municipal wastewater as a tool for sewage epidemiology
- Supervisor: Prof. Dr. Jennifer Field

Technical/Research Collaborator, March 2005 – September 2006

Oregon State University, Department of Environmental and Molecular Toxicology

- Project title: Analysis of anionic and semi-volatile fluorochemicals in aqueous environmental matrices
- Supervisor: Prof. Dr. Jennifer Field

WORK EXPERIENCE:

International Internship, June 2004 – September 2004

COOPE Sol I DAR (Cooperative for Social Action and Sustainable Development), San Jose, Costa Rica

- Project title: Saving the Atlantic Coast “Gandoca-Manzanillo
- Supervisor: Dr. Patricia Madrigal Cordero and Dr. Vivienne Solis Rivera

Technical Collaborator, September 2001 – March 2003

Brookhaven National Laboratory, Long Island, NY

- Project title: Bioremediation of metals in soils
- Supervisor: Dr. Jeffrey Gillow

INSTITUTIONAL RESPONSIBILITIES

(1) Research, (2) project leader, (3) organization, design, execution and management of different sampling campaigns, (4) analysis, optimization and develop of multi-residue methods for the analysis of organic compounds, (5) organization of project meetings and writing reports, and (6) supervision and training of apprentices and master students.

RESEARCH PROPOSALS

Evaluating Organic Contaminant Fluxes in Sediments of Greifensee, Academic Transition Grant (2017), Eawag, and 45,681 CHF.

THESIS SUPERVISION:

July-present: *Co-supervisor of Raymmah Garcia, Master in Sciences, Department of Chemistry, Oregon State University, Corvallis, Oregon, USA. Title: “Homologous series of hydrocarbon surfactants in contaminated Groundwater”*

September - April 2016: *Main supervisor of Adrian Mueller, Master of Disciplinary Sciences, ETH Zurich, Switzerland. Title: “Early identification of organic contaminants by a multimedia fate model and high resolution mass spectrometry”*

September - February 2016: *Main supervisor of Barbara Günthardt, Master of Chemistry, ETH Zurich, Switzerland. Title: “Temporal trend analysis on LC-HRMS measurements of lake sediments to prioritize organic contaminants”*

February - May 2013: *Main supervisor of Praveen Kuma, Erasmus Programme, PhD in Chemistry, University of Barcelona, Spain. Subject: Non-target screening analysis in lake sediments*

February - June 2011: *Main supervisor of Tobias Hollingshaus. Master of Bio and Pharmaceutical Analysis, University of Applied Sciences, Idstein, Germany. Title: “Bioaccumulation of Xenobiotics in *Daphnia* diapausing eggs”*

July - January 2011: *Main supervisor of Joris Buijter. Master of Sciences, University of Duisburg-Essen, Germany. Title: “Detection of UV stabilizers in lake sediments using LC-APPI-LTQ-Orbitrap”*

TEACHING EXPERIENCE:

2009-2013: Teaching Assistant and Main Organizer

Institute of Biogeochemistry and Pollutant Dynamics, ETH Zürich (Master program course)

Title: Analysis of Organic Pollutants -Tracing polar organic contaminants during sewage treatment processes

1999-2002: Spanish Instructure

Berlitz Learning Center, New York, USA

SCIENTIFIC COMMITTEE:

November 2016 – External Committee member: Doctoral thesis of Rosa María Baena Noguera. Department of Physical-Chemistry, University of Cádiz, Spain. *Title dissertation: “Determination and environmental behavior of pharmaceuticals and personal care products in aquatic environments”*

November 2015 - External Examiner: Doctoral thesis of Marina Pintado Herrera. Department of Physical-Chemistry, University of Cádiz, Spain. *Title dissertation: “Determination, distribution and environmental behavior of regulated and emerging contaminants in coastal systems”*

JOURNAL ACTIVITIES:

Guest Editorial-June 2016: Environmental Science and Pollution Research Journal (ESPR). Special issue on contaminated sediments.

Journal Reviewer: Analytical Chimica Acta, Chemosphere, Current Analytical Chemistry, Environmental Toxicology and Chemistry, Environmental Pollution, Environmental Science and Technology, Environmental Science and Pollution Research, International Journal of Environmental Pollution and Remediation, Journal of Hazardous Materials, Science of the Total Environment and Water Research.

AFFILIATIONS:

Swiss Chemical Society

ORGANIZATION OF WORKSHOPS, CONFERENCES:

September 2015: Satellite Event on *Combining Strategies and Tools to Identify Priority Chemicals in the Environment*, 15th EuCheMS - International Conference on Chemistry and the Environment, Leipzig, Germany

AWARDS:

Fall 2015: Division of Analytical Sciences of the Swiss Chemical Society award for a highly successful Satellite Event. 15th EuCheMS International Conference on Chemistry and the Environment, Leipzig, Germany (1,000 CHF)

Winter 2014: Division of Analytical Sciences of the Swiss Chemical Society support grant for young scientist. Contaminated Sediment Conference (ConTaSed 2015), Monte Verità, Ascona, Switzerland (1,000 CHF)

Summer 2008: Carl Storm Underrepresented Minority Fellowship program. Gordon Research Conference, Holderness, NH, USA (1,200 USD)

Summer 2006: National Institute of Environmental Health Sciences (NIEHS) minority Intern Program Grant. Oregon State University, Corvallis, OR, USA (2,000 USD)