

CURRICULUM VITAE

PD Dr. Kathrin Fenner

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Date/Place of Birth: August 18, 1972, Zürich, Switzerland

Nationality: Swiss

EDUCATION

- 11/1997 – 10/2001: **Swiss Federal Institute of Technology (ETH), Chemistry Department**
PhD Studies in Environmental Chemistry
- 10/1998 – 08/2000: **Swiss Federal Institute of Technology (ETH), Department of Industrial Management and Manufacturing**
Postgraduate Studies in Industrial Management (Dipl. NDS ETHZ in Betriebswissenschaften)
- 10/1992 – 07/1997: **University of Zurich, Faculty of Philosophy II**
Studies in Chemistry/Physical Chemistry

UNIVERSITY DEGREES

- 2010: **Venia legendi in Environmental Chemistry, Swiss Federal Institute of Technology (ETH)**
Habilitation thesis: "Exposure assessment for organic contaminants – Improving scope and accuracy"
- 2002: **Doctoral Degree in Natural Science, Swiss Federal Institute of Technology (ETH)**
Doctoral thesis: "Transformation products in environmental risk assessment: Joint and secondary persistence as new indicators for the overall hazard of chemical pollutants"
- 2001: **Postgraduate Degree in Industrial Management and Manufacturing, Swiss Federal Institute of Technology (ETH)**
- 1997: **Diploma of the Faculty of Philosophy II, University of Zürich**

PROFESSIONAL EXPERIENCE

- 08/2010 – present: **Swiss Federal Institute of Aquatic Science and Technology (Eawag)**
Senior scientist, group leader
- 05/2004 – 06/2010: **Swiss Federal Institute of Aquatic Science and Technology (Eawag)/Swiss Federal Institute of Technology (ETH), Institute of Biogeochemistry and Pollutant Dynamics**
Oberassistentin (non-tenure track assistant professor)
- 11/2006 – 10/2007: **University of Minnesota, Department of Biochemistry**
Visiting researcher (SNF fellowship for advanced researchers)
- 05/2002 – 04/2004: **Swiss Federal Institute of Aquatic Science and Technology (Eawag)/Swiss Federal Institute of Technology (ETH), Environmental Sciences Department**
Postdoctoral research position
- 11/2001 – 02/2002: **Swiss Federal Institute of Technology (ETH), Chemistry Department**
Postdoctoral research position
- 01/2001 – 04/2001: **Lawrence Berkeley National Laboratory, Environmental Energy Technology Division, USA**
Visiting researcher during PhD studies

- 06/2000 – 09/2000: **SAM Sustainability Group, Zollikon (Switzerland)**
Postgraduate diploma thesis
- 11/1997 – 08/2000: **Swiss Federal Institute of Technology (ETH), Chemistry Department**
Research assistant in exposure modeling and chemical risk assessment

AWARDS/EDUCATIONAL GRANTS

- 2015: **Second runner-up for Top Science Paper Award of Environmental Science and Technology 2014** for Gulde, R.; Helbling, D.; Scheidegger, A.; Fenner, K. (2014). pH-dependent Biotransformation of Ionizable Organic Micropollutants in Activated Sludge. *Environ. Sci. Technol* **48**, 13760–13768.
- 2014: **ERC Consolidator Grant** for project "PROduCTS"
- 2012: **Society of Toxicology Risk Assessment Specialty Section, Best Paper Awards, 2012 Annual Meeting. Top Publication** for Escher, B.; Fenner K. (2011). Recent Advances in Environmental Risk Assessment of Transformation Products. *Environ. Sci. Technol.* **45**(9), 3835-3847.
- 2011: **Certificate of Merit for Platform Presentation** for Fenner K.; Helbling, D.; Johnson, D. R.; Ackermann, M. (2011). American Chemical Society, Division of Environmental Chemistry.
- 2011: **Top Science Paper Award of Environmental Science and Technology 2010** for Helbling, D.; Hollender J.; Kohler H.-P.; Singer, H.; Fenner K. (2010). High-Throughput Identification of Microbial Transformation Products of Organic Micropollutants. *Environ. Sci. Technol* **44**(17), 6621-6627.
- 2003: **Special mention at ECETOC Science Award 2003** for paper submitted for an award in the field of Environmental Fate and Effects
- 2002: **Honorary medal of the Swiss Federal Institute of Technology (ETH)** for outstanding doctoral thesis
- 1997: **Scholarship of the Alfred-Werner Legacy** for passing the diploma with the distinction of the Faculty of Philosophy II of the University of Zurich
- 1995: **Scholarship of the Alfred-Werner Legacy** for passing the "2nd Vordiplom" with excellence
- 1993: **Scholarship of the Alfred-Werner Legacy** for passing the "1st Vordiplom" with excellence

PREVIOUS ASSESSMENTS FOR PROFESSORSHIP

- 2008: **Swiss Federal Institute of Technology (ETH), Institute of Biogeochemistry and Pollutant Dynamics**
Short-listed (2nd ex aequo) for position of full professor in Environmental Organic Chemistry
- 2007: **University of Michigan Ann Arbor, Department of Environmental Health Sciences**
Short-listed (3rd) for position as assistant professor in Water Quality and Risk to Human Health
- 2007: **University of Massachusetts Amherst, Department of Environmental Health Sciences**
Short-listed (1st) for position as assistant professor in Environmental Health Sciences

TEACHING

TEACHING ACTIVITIES, BASIC EDUCATION

- 08/2014 – ongoing **Swiss Federal Institute of Technology (ETH)**
Member of core group for "ETH week 2015" (curriculum development)
- 10/2005 – ongoing **Swiss Federal Institute of Technology (ETH), Applied Biosciences Department**
Course "Basis of environmental chemistry and ecotoxicology", Bachelor in Chemistry, co-lecturer/main responsible person, 15 semester hours
- 10/2005 – 6/2011 **Swiss Federal Institute of Technology (ETH), Environmental Sciences Department**
Course "Risk assessment of chemicals", Master in Biogeochemistry and Pollutant Dynamics, co-lecturer, 15 semester hours
- 10/2005 – 12/2006 **Swiss Federal Institute of Technology (ETH), Environmental Sciences Department**
Course "Introduction into organic environmental chemistry and environmental analytics", Bachelor in Environmental Sciences, co-lecturer, 15 semester hours
- 12/2002: **Swiss Federal Institute of Aquatic Science and Technology (Eawag)**
Lecture on exposure modeling and chemicals assessment in Eawag course on chemical pollutants
- 10/1998: **Vocational School Basel (Switzerland)**
Seminar teaching on life-cycle assessment of chemicals (3 lectures)
- 11/1997 – 08/2000: **Swiss Federal Institute of Technology (ETH), Chemistry Department**
Teaching assistant in lecture course on ecological design of chemical processes and products; Supervision of diploma theses and case-studies

TEACHING ACTIVITIES, RESEARCH EDUCATION

- 10/2000 – ongoing **Swiss Federal Institute of Aquatic Science and Technology (Eawag)/Swiss Federal Institute of Technology (ETH), Environmental Sciences Department**
Main supervisor of four PhD theses:
- Stefan Achermann, "How does environmental variability of biotransformation rates depend on the type of transformation?", ETH Zürich, ongoing.
 - Rebekka Gulde, "Biotransformation of amine-containing micropollutants in activated sludge: pH-dependency and biotransformation reactions", Doctor in Natural Sciences, ETH Zürich, Switzerland, 2015, ETH No. 23108.
 - Susanne Kern, "Transformation products of organic micropollutants: Development and evaluation of methods for assessing their exposure in the aquatic environment", Doctor in Natural Sciences, ETH Zürich, Switzerland, 2010, ETH No. 19098.
 - Holger Tülp, "Determining molecular properties of complex chemicals to quantify environmental partitioning processes", Doctor in Natural Sciences, ETH Zürich, Switzerland, 2009, ETH No. 18364.
- Co-supervisor of two PhD theses:
- Sabine Anliker, "Peak emissions from producing pharmaceutical and chemical industries", ETH Zürich, ongoing.
 - Minju Lee, "Developing models to predict ozonation rates and products of micropollutants", EPF Lausanne, ongoing.

Main supervisor of seven master theses:

- Ulf Meier, "Environmental relevance of N-oxide transformation products of amine-containing compounds"
- Annika Wössner, "Model- and screening based prioritization of pharmaceuticals in Swiss waters"
- Martin Loos, "Pesticide biodegradation modeling"
- Maline Elumelu, "Analysis of biotransformation products of pharmaceuticals with amine and ether functional groups"
- Rebekka Baumgartner, "Analysis and prediction of formation and fate of biotransformation products of pharmaceuticals during sewage treatment"
- Sebastian Huntscha, "Analyse des Expositionsmusters von Metolachlor-Umwandlungsprodukten im Greifenseeinzugsgebiet"
- Beat Herensperger, "Risikoanalyse von Atrazin und dessen primären Umwandlungsprodukten im Greifenseeinzugsgebiet"
- Valentin Lanz, "Statistische Auswertung von Atrazinabbauraten im Boden und deren Verwendung in Verteilungsmodellen"

Supervisor of eight semester projects

STUDENT PRIZES/STUDENT AWARDS

Poster award. Huntscha, S.; Fenner, K.; Singer, H. *Eintrags- und Abbauverhalten von Metolachlor-ESA im Oberflächengewässer*. Jahrestagung der GDCh-Fachgruppe Umweltchemie und Ökotoxikologie, 26-28 September 2007, Osnabrück, Germany.

PHD COMMITTEES

Zhe Li, ACES, University of Stockholm, Sweden: Opponent

Rebekka Gulde, Department of Environmental Systems Sciences, ETH Zürich, Switzerland: Co-examiner

Holger Tülp, Department of Environmental Sciences, ETH Zürich, Switzerland: Co-examiner

Urs Schenker, Department of Chemistry and Applied Biosciences, ETH Zürich, Switzerland: Co-examiner

Susanne Kern, Department of Environmental Sciences, ETH Zürich, Switzerland: Co-examiner

Emma Undeman, ITM, University of Stockholm, Sweden: Opponent

TEACHING-RELATED PUBLICATIONS IN PEER-REVIEWED JOURNALS

Fenner, K.; Jödicke, G.; Alean-Kirkpatrick, P.; Hungerbühler, K. (2001). Introducing Integrated Product and Process Development into the Education of Science and Engineering Undergraduates: A Lecture Course with an Accompanying Case-Study Programme at the ETH Chemistry Department. *Chemosphere* **43**, 5-16.

RESEARCH FUNDING

CURRENT AND PAST GRANTS AND EXTERNALLY FUNDED PROJECTS

- 7/2015 – 10/2016: **1-year research project for the German Environmental Agency (UBA)**
PIIdent – Überprüfung der Verwendbarkeit einfacher Laborsimulationsstudien zur Identifizierung persistenter Chemikalien in Oberflächengewässern
(PI: Fenner, Euro 98'865, Co-PI: Stamm)
- 10/2014 – 9/2016: **2-year SNF postdoc project**
TOXOZONE – A mechanistic approach for identifying sources of mutagenicity formed during wastewater ozonation
(PI: von Gunten, CHF 245'057, Co-PIs: Fenner/Schirmer)
- 7/2014 – 6/2019: **ERC Consolidator Grant**
PROduCTS – Predicting environment-specific biotransformation of chemical contaminants
(PI: Fenner, Euro 2'000'000)
- 3/2014 – 2/2017: **3-year SNF interdisciplinary project**
NGE-PPS – Next-generation environmental biotransformation pathway prediction system
(PI: Fenner, CHF 384'681, Co-PI: Kramer)
- 12/2012 – 11/2015: **3-year SNF interdisciplinary project**
Can community transcription profiles be used to predict environmental biotransformation of organic contaminants?
(PI: Fenner, CHF 265'116, Co-PIs: Johnson/Helbling)
- 10/2012 – 12/2012: **Software development support for Ph.D. project from BAFU ("Swiss EPA")**
O3PPS - Prediction of transformation products formed during ozonation of micropollutant-containing waters
(PI: Fenner, CHF 50'000, Co-PI: von Gunten)
- 5/2012 – 11/2012: **0.5-year Korean-Swiss Science and Technology cooperation project**
Predicting the Biotransformation Capacities of Microbial Communities from their Taxonomic Composition
(PI: Johnson, CHF 33'000, Co-PIs: Fenner/Ackermann/Helbling)
- 1/2012 – 12/2014: **3-year CEFIC LRI project**
Improved strategy to assess chemical persistence at the sediment-water interface
(PI: Fenner, Euro 496'600, Co-PIs: Junker (ECT Oekotoxikologie GmbH/Hennecke (Fraunhofer IME))
- 8/2011 – 7/2014: **4-year SNF Ph.D. project**
Improving structure-biodegradation relationships to predict products and rates of aerobic biotransformation of organic micropollutants
(PI: Fenner, CHF 258'000)
- 5/2010 – 4/2011: **1-year postdoc project from Eawag Discretionary Funds**
Can the biotransformation capacities of microbial communities be predicted?
(PIs: Fenner/Johnson, CHF 122'820)
- 11/2009 – 6/2010: **Complementary research project funded by Novartis AG**
Valsartan and its transformation products
(PIs: Fenner/Singer/Hollender, CHF 40'000)
- 5/2008 – 4/2010: **2-year postdoc project from Eawag Discretionary Funds**
Experimental evaluation and further development of a computer-based biodegradation pathway prediction system for chemical pollutants
(PI: Fenner, CHF 221'500)
- 11/2006 – 10/2010: **4-year project for two doctoral students from BAFU ("Swiss EPA")**
Combined modeling and measurement approach for the identification of relevant transformation products in water resources (Ko-Met)
(PI: Fenner, CHF 550'000)
- 11/2006 – 10/2007: **1-year SNF fellowship for advanced researchers**

- Priorisation of biodegradative pathways using thermodynamic feasibility and energy efficiency analyses
(PI: Fenner, CHF 47'125)
- 1/2006 – 12/2008: **3-year doctoral grant from ETH (TH-grant)**
Predicting sorption of neutral and ionic complex contaminants
(PIs: Fenner/Schwarzenbach, CHF 128'000)
- 3/2005 – 2/2007: **2-year postdoctoral grant within EU-project ERAPharm**
Development of GIS-based exposure scenarios for veterinary pharmaceuticals in Europe
(PI: Fenner, CHF 200'000)
- 3/2005 – 5/2006: **1-year research project for BAFU ("Swiss EPA") within thematic priority "Reduction of chemical pollution in water resources"**
Prioritization of transformation products of micropollutants
(PIs: Fenner/Scheringer, CHF 78'000)

SERVICE

MEMBERSHIP ON PROFESSIONAL COMMITTEES AND PANELS

- 03/2015 – Present: **ES&T Editorial Advisory Board**
Member of the Editorial Advisory Board of *Environmental Science and Technology*
- 02/2015 – Present: **iPiE Expert Group**
Member of the Expert Group of iPiE (Prioritisation and Intelligent Testing of Pharmaceuticals, IMI/EU/EFPIA)
- 08/2013 – Present: **Deutsche Wasserchemische Gesellschaft**
Member of Fachausschuss „Umweltrelevante Transformationsprozesse im Wasserkreislauf“ des HAIII
- 10/2011 – Present: **ATHENE Scientific Advisory Board**
Member of the Scientific Advisory Board of Athene (ERC Advanced Grant, No 267897)
- 01/2010 – Present: **Eawag Yearly Research Symposium**
Co-organizer
- 04/2008 – 01/2010: **Action field “Chemicals and their effects in water” at Swiss Federal Institute of Aquatic Science and Technology (Eawag)**
Action field facilitator
- 1/2006 – 01/2010: **Action field “Chemicals and their effects in water” at Swiss Federal Institute of Aquatic Science and Technology (Eawag)**
Member of steering committee
- 1/2005 – 1/2008: **European Food Safety Authority (EFSA)/Panel on additives and products of substances used in animal feed (FEEDAP)**
Member of the scientific panel of FEEDAP
- 10/2004 – 9/2007: **EU-Project “ERAPharm” (Environmental Risk Assessment of Pharmaceuticals)**
Coordinator of work package 1.2 on exposure modeling
- 5/2002 – 12/2003: **“Chemikalien-Plattform” Eawag (Swiss Federal Institute of Aquatic Science and Technology)**
Coordination and moderation of working group on re-organization of chemical research at Eawag
- 10/2001 – 12/2004: **OECD/UNEP Expert Group on the Use of Multimedia Models for POPs and PBT Assessment**
Member of the expert group on behalf of Swiss EPA (BAFU).

REVIEWS FOR SCIENTIFIC JOURNALS

Atmospheric Environment, Chemosphere, Environmental Toxicology and Chemistry, Environmental Pollution, **Environmental Science and Technology**, International Journal of Environmental Research and Public Health, Journal of Separation Science, Journal of Contaminant Hydrology, Journal of Agricultural and Food Chemistry, **Nature**, Regulatory Toxicology and Pharmacology, Re/Views in Environmental Science and Bio/Technology, **Science**, Science of the Total Environment, Water Research

REVIEWS FOR FUNDING AGENCIES

Croatian Science Foundation (HRZZ), "Research Projects" Call for proposals, 2014
CEFIC Long-range Research Initiative, Request for Proposals for LRI-ECO29, 2014
Deutsche Bundesstiftung Umwelt (DBU), Programm für Promotionsstipendien, 2013
French National Research Agency (ANR), Contaminants et Environnements (CESA), 2011
Niedersachsen – Israel Research Cooperation Program of the Ministry of Science and Culture of Lower Saxony, 2007
Natural Environment Research Council (NERC), Environment and Health Programme, UK

ORGANIZING COMMITTEES

Member of the scientific committee of SETAC GLB 2016, Tübingen, Germany, 2016.

Main organizer of 1-day ECETOC stakeholder workshop on OECD 308&309 testing guideline, Dübendorf, Switzerland, 2015.

Co-chair of local organizing committee of SETAC 2014, Basel, Switzerland, 2014.

Member of the scientific committee of SETAC 2014, Basel, Switzerland, 2014.

Member of the scientific committee of ERAPharm, *International Conference on Pharmaceuticals in the Environment*, York, UK, 2007.

Main organizer of TransCon2010 – *Environmental transformation of organic compounds: Towards a joint perspective on the importance of transformation products as environmental contaminants*, Centro Stefano Franscini, Monte Verità, Ascona, Switzerland, 2010.

ADDITIONAL INFORMATION

MATERNITY LEAVES

October, 15, 2008, until March, 1, 2009 (4.5 months)

March, 1, 2012, until August, 1, 2012 (5 months)

PRESENTATIONS

INVITED PRESENTATIONS

- Fenner, K. *Towards a more accurate prediction of the biotransformation of chemical contaminants.* Safety and Environmental Technology Group Seminar Series, 30 October 2015, Institute of Chemical and Bioengineering, ETH Zürich, Zürich, Switzerland.
- Fenner, K. *Umwandlungsprodukte – Relevante Risikofaktoren?* Forschungsseminar, 27 October 2015, Sektion Pflanzenschutzmittel und Biozide, Bafu, Bern, Switzerland.
- Fenner, K. *Towards a more accurate prediction of biotransformation – Exploring linkages between micropollutant biotransformation and microbial community characteristics.* Keynote lecture, 3 September 2015, CEST2015, 14th International Conference on Environmental Science and Technology, Rhodes, Greece.
- Fenner, K. *Towards a more accurate prediction of the biotransformation of chemical contaminants.* Research seminar, 21 August 2015, Department of Environmental Toxicology, Eawag, Dübendorf, Switzerland.
- Fenner, K. *Assessing the environmental fate of organic contaminants – Improved scope and accuracy.* Research seminar, 13 April 2015, Department of Chemistry, Humboldt University zu Berlin, Berlin, Germany.
- Fenner, K. *Assessing the environmental fate of organic contaminants – Improved scope and accuracy.* Research seminar, 5 February 2015, Department of Chemistry, University of Zurich, Zurich, Switzerland.
- Fenner, K. *Towards a more accurate prediction of the biotransformation of chemical contaminants – What we can learn from combining data mining, analytical chemistry and molecular biology tools.* Research seminar, 8 December 2014, Helmholtz Centre for Environmental Research (UFZ), Leipzig, Germany.
- Fenner, K. *ECO18: Developing improved strategies to assess chemical persistence at the water-sediment interface.* Cefic LRI Annual Workshop. 19-20 November 2014, Brussels, Belgium.
- Fenner, K. *Finding relationships between gene expression and micropollutant biotransformation.* Athene workshop "Wastewater treatment targeted at organic micropollutant biodegradation". 11-12 November 2014, German Federal Institute of Hydrology, Koblenz, Germany.
- Fenner, K. *Aktuelle Modelle zur Vorhersage biologischer Abbaubarkeit.* DWA (Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V.) Workshop on "Relevanz von Umwandlungsprodukten im urbanen Wasserkreislauf". 23-24 September 2014, German Federal Institute of Hydrology, Koblenz, Germany.
- Fenner, K. *Assessing the fate of polar contaminants in the water cycle.* Research seminar, 22 September 2014, Institute of Evolutionary Biology and Environmental Studies & Department of Chemistry, University of Zurich, Zurich, Switzerland.
- Fenner, K. *Identifying limitations of the OECD water-sediment test (OECD 308) and developing suitable alternatives to assess persistence.* ECETOC (European Centre for Ecotoxicology and Toxicology of Chemicals) Environment Review Meeting. 29-30 January 2014, Brussels, Belgium.
- Fenner, K. *Strategies to identify transformation products and their risk.* ECETOC (European Centre for Ecotoxicology and Toxicology of Chemicals) Scientific Workshop on The Effective Evaluation of the Persistence of Chemicals in the Environment. 6-7 November 2012, Paris, France.
- Gulde, R.; Fenner, K. *Aktuelle Modelle zur Vorhersage biologischer Abbaubarkeit.* DWA (Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V.) Workshop on "Relevanz von Umwandlungsprodukten im urbanen Wasserkreislauf". 23-24 April 2012, Koblenz, Germany.
- Fenner, K. *Abbau von Mikroschadstoffen durch verschiedene industrielle und kommunale Belebtschlämme.* Umweltsymposium Papiertechnische Stiftung. 8-10 November 2011, Papiertechnische Stiftung, München, Germany.
- Fenner, K. *A combined expert knowledge and data-driven approach to predict biotransformation pathways of organic contaminants.* 1st meeting of the EU project Athene. 12-13 October 2011, German Federal Institute of Hydrology, Koblenz, Germany.

- Fenner, K. *Combining expert knowledge, data mining and targeted experimentation to improve biodegradation pathway prediction*. Special seminar. 2 September 2011, Colorado School of Mines, Environmental Science and Engineering Division, Golden, Colorado, USA.
- Fenner, K. *Exposure assessment of organic contaminants: Putting science into practice*. Farewell symposium for Prof. René P. Schwarzenbach, 25-28 March 2011, Ascona, Switzerland.
- Boethling, B.; Snape, J.; Fenner, K.; Klecka, G. *The science of assessing POPs-PBTs: Focus on persistence*. SETAC Webinar, 20 October 2010, online.
- Fenner, K. *Transformation products of organic contaminants in aquatic resources: New avenues for their identification and exposure assessment*. Research seminar, 30 September 2010, Department of Applied Environmental Sciences, Stockholm University, Stockholm, Sweden.
- Fenner, K. *Predicting environmental exposure to transformation products: Mission impossible or a tractable problem?* TransCon2010 – Environmental transformation of organic compounds: Towards a joint perspective on the importance of transformation products as environmental contaminants, 12-17 September 2010, Ascona, Switzerland.
- Fenner, K. *Transformation products of organic contaminants in aquatic resources: New avenues for their identification and exposure assessment*. Gordon Research Conference – Environmental Sciences: Water, 20-25 June 2010, Holderness NH, USA.
- Fenner, K.; Singer, H.; Stamm, C. *Diffuse Einträge von Mikroverunreinigungen in Oberflächengewässer*. Workshop der International Kommission zum Schutz des Rheins (IKSR) zu Mikroverunreinigungen aus diffusen Quellen, 23 February 2010, Deutsches Umweltministerium, Bonn, Germany.
- Fenner, K. *Predicting biotransformation products: development and validation of a computer-based tool*. Norman Workshop on Mixtures and metabolites of chemicals of emerging concern, 19 November 2009, VU University, Amsterdam, The Netherlands.
- Fenner, K. *Umwandlungsprodukte – Relevante Risikofaktoren?* Eawag Infotag, 23 Juni 2009, Eawag, Dübendorf, Switzerland.
- Fenner, K. *Transformation products of organic contaminants: New avenues for their identification and exposure assessment*. Symposium Environmental Organic Chemistry, 28 November 2008, Institute of Biogeochemistry and Pollutant Dynamics, ETH Zürich, Zürich, Switzerland.
- Fenner, K. *Prediction and analysis of transformation products of organic contaminants in aquatic resources*. School of Life Sciences Seminar Series, 18 August 2008, University of Applied Sciences Northwestern Switzerland, Muttenz, Switzerland.
- Fenner, K. *Modeling and assessing environmental exposure to transformation products of organic chemicals*. Safety and Environmental Technology Group Seminar Series, 7 April 2008, Institute of Chemical and Bioengineering, ETH Zürich, Zürich, Switzerland.
- Fenner, K. *Modeling and assessing environmental exposure to transformation products of organic chemicals*. Institute Seminar Series, 31 March 2008, Institute of Environmental Science and Technology, EPFL Lausanne, Lausanne, Switzerland.
- Fenner, K. *Ansätze für die Vorhersage von Bioabbaupfaden für die Chemikalienbewertung – Das Pathway Prediction System der Universität von Minnesota*. Sitzung des Arbeitskreises Chemikalienbewertung der Fachgruppe für Umweltchemie und Ökotoxikologie der GDCh, 12 March 2008, GDCh Geschäftsstelle, Frankfurt, D.
- Fenner, K. *Ansätze für die Vorhersage von Bioabbaupfaden für die Chemikalienbewertung*. Biogeographisches/Geobotanisches/Toxikologisches Kolloquium, 20 November 2007, Universität Trier, Trier, D.
- Fenner, K. *Biodegradation pathway prediction using metabolic logic and thermodynamic efficiency analysis*. Department retreat, 6 October 2007, University of Minnesota, Department of Biochemistry, Molecular Biology and Biophysics, Alexandria, Minnesota, USA.
- Fenner, K. *Identification of relevant transformation products – Combining high-resolution mass spectrometry, fate modeling and structure-based biodegradation prediction*. Special seminar. 14 September 2007, Colorado School of Mines, Environmental Science and Engineering Division, Golden, Colorado, USA.
- Fenner, K. *Combined modeling and measurement strategy for identifying relevant transformation products*. Environmental engineering seminar series. 4 May 2007,

University of Minnesota, Environmental Engineering Department, Minneapolis, Minnesota, USA.

Fenner, K. *Modeling and assessing environmental exposure to transformation products of organic chemicals*. Invited seminar. 25 April 2007, University of Michigan, School of Public Health, Ann Arbor, Michigan, USA.

Fenner, K. *Modeling and assessing environmental exposure to transformation products of organic chemicals*. Invited seminar. 7 March 2007, University of Massachusetts, School of Public Health and Health Sciences, Amherst, Massachusetts, USA.

Fenner, K. *Exposure assessment of human use pharmaceuticals released in wastewater*. Workshop on Ecological Risk Assessment of Pharmaceuticals. 6 October 2006, Viamede Resort, Ontario, Canada.

Fenner, K.; Singer, H.; Hollender, J. *A quantum leap in analytical chemistry – A combination of linear ion trap with orbitrap analyzer for the detection of pesticides and pesticide transformation products*. Umweltchemie Symposium, BAFU, 14 September 2006, Bern, Switzerland.

Fenner, K. *Persistenzberechnungen und Ausbreitungsmodelle für Umweltschadstoffe und ihre Umwandlungsprodukte*. Umweltchemie Symposium, BAFU, 31 October 2005, Bern, Switzerland.

Fenner, K.; Schneider, M. *Current "state of the art" and challenges in exposure assessment for pharmaceuticals*. Environmental Risk Assessment Conference, EMEA, 27 October 2005, London, UK.

Fenner, K. *Comparing estimates of persistence and long-range transport potential among multimedia models*. OECD/UNEP workshop on the application of multimedia models for identification of persistent organic pollutants, ETH Zurich, 31 August 2005, Zurich, Switzerland.

Fenner, K. *Challenges in exposure modelling for pharmaceuticals*. Pharmaceuticals in the environment: Fate, effects and regulation, SCI, 1 March 2005, London, UK.

Fenner, K.; Escher, B. *QSBRs and QSARs – Chemische und ökotoxikologische Grundlagen, Anwendungsbereiche und Limitationen*. 36. Sitzung der Fachkommission für Umwelttoxikologie, BUWAL, 25 November 2004, Bern, Switzerland.

Schwarzenbach, R.P.; Fenner, K.; Escher, B.; Goss, K. *Science and Practice – A difficult marriage?* Keynote lecture. SETAC GLB, 2nd Joint Annual Meeting, 6 October 2004, Aachen, Germany.

Fenner, K.; Sinclair, C.; Boxall, A. *Degradates: How do they get to water?* International Symposium on Pesticide Degradates and Adjuvants, 4 June 2004, Prague, Czech Republic.

Fenner, K. *Diskrepanz zwischen messbar und beurteilbar – Wie reagieren auf das Risiko der Mikroverunreinigungen?*, 57. VSA-Fortbildungskurs, 23 April 2004, Emmetten, Switzerland.

Fenner, K. *How to guide the use of multimedia models for Pov and LRTP assessment*, Deutsches Umweltbundesamt, Third UBA Forum on Persistent Organic Substances, 12 March 2004, Berlin, Germany.

Fenner, K.; Schwarzenbach, R. *Chemikalienforschung: Quo vadis? - Diskussionsbeiträge zum Spannungsfeld zwischen Forschung und Praxis der Chemikalienbeurteilung*, EAWAG, Freitagsseminarsreihe, October 2003, Dübendorf, Switzerland.

Fenner, K.; Schwarzenbach, R. *Chemical aspects of the integrity of aquatic systems*, EAWAG, International water management course, 5 July 2003, Kastanienbaum, Switzerland.

Fenner, K. *Exposure modelling in environmental risk assessment*, Technical University Vienna, POSEIDON training workshop (EU-project), 3 April 2003, Vienna, Austria.

Fenner, K. *Assessing chemicals in terms of persistence and long-range transport potential: Multimedia models, uncertainties and transformation products*, EAWAG, Umweltnaturwissenschaftliche Seminarsreihe, 10 January 2003, Dübendorf, Switzerland.

CONFERENCE PRESENTATIONS

Fenner, K.; Achermann, S.; Men, Y.; Gulde, R. *Mechanisms and causative agents of amine biotransformation in activated sludge*. Platform presentation. ICCE 2015, 15th EuCheMS International Conference on Chemistry and the Environment, 20-24 September 2015, Leipzig, Germany.

- Latino, D.; Fenner, K. *Reactome-Based Encoding of Microbial Communities and their Application to Contaminant Biotransformation Prediction*. Platform presentation. ICCE 2015, 15th EuCheMS International Conference on Chemistry and the Environment, 20-24 September 2015, Leipzig, Germany.
- Honti, M.; Junker, T.; Hennecke, D.; Hahn, S.; Fenner, K. *Bridging across OECD 308 and 309 data in search of a robust transformation indicator*. Platform presentation. ICCE 2015, 15th EuCheMS International Conference on Chemistry and the Environment, 20-24 September 2015, Leipzig, Germany.
- Junker, T.; Hennecke, D.; Shresta, P.; Hahn, S.; M. Honti; Fenner, K. *Evaluation of a Modified OECD 308 Test Design*. Poster presentation. ICCE 2015, 15th EuCheMS International Conference on Chemistry and the Environment, 20-24 September 2015, Leipzig, Germany.
- Hennecke, D.; Fenner, K.; Honti, M.; Shresta, P.; Hahn, S.; Junker, T. *Improved strategies for the assessment of chemical persistence at the water-sediment interface – experimental approach*. Poster presentation. ICCE 2015, 15th EuCheMS International Conference on Chemistry and the Environment, 20-24 September 2015, Leipzig, Germany.
- Hennecke, D.; Fenner, K.; Honti, M.; Shrestha, P.; Hahn, S.; Junker, T. *"Shaken, not stirred": the consequences of experimental freedom in the current OECD 309 guidance*. Poster presentation. ICCE 2015, 15th EuCheMS International Conference on Chemistry and the Environment, 20-24 September 2015, Leipzig, Germany.
- Achermann, S.; Falås, P.; Men, Y.; Singer, H.; Joss, A.; Fenner, K. *Elucidating Trends in Biotransformation Rates along a Solids Retention Time Gradient*. Poster presentation. ICCE 2015, 15th EuCheMS International Conference on Chemistry and the Environment, 20-24 September 2015, Leipzig, Germany.
- Gulde, R.; Helbling, D.; Scheidegger, A.; Fenner, K. *pH-dependent Biotransformation of Ionizable Organic Micropollutants in Activated Sludge*. Poster presentation. Gordon Research Conference – Environmental Sciences: Water, 22-27 June 2014, Holderness NH, USA.
- Fenner, K.; Johnson, D.; Scheidegger, A.; Helbling, D. *Can micropollutant biotransformation rates be predicted from the taxonomic compositions of WWTP microbial communities?* Platform presentation. ISME15, 24-29 August 2014, Seoul, South Korea.
- Men, Y.; Fenner, K. *Linkages between biodiversity, nitrifiers, and micropollutant biotransformation in activated sludge microbial communities*. Platform presentation. ISME15, 24-29 August 2014, Seoul, South Korea.
- Gulde, R.; Helbling, D.; Scheidegger, A.; Fenner, K. *pH-dependent biotransformation of ionizable organic micropollutants in activated sludge*. Platform presentation. SETAC Europe, 24th Annual Meeting, 11-15 May 2014, Basel, Switzerland.
- Honti, M.; Fenner, K. *Estimating transformation rate constants from OECD 308 data – Opportunities and limitations of existing data*. Platform presentation. SETAC Europe, 24th Annual Meeting, 11-15 May 2014, Basel, Switzerland.
- Helbling, D. E.; Johnson, R. D.; Fenner, K. *Establishing predictive associations between micropollutant biotransformation and microbial community characteristics*. Platform presentation. Micropol & Ecohazard Conference, 16-20 June 2013, Zürich, Switzerland.
- Fenner, K.; Singer, H.; McArdell, C.; Wössner, A. *Evaluation of analytical and model-based rapid screening approaches to assess exposure of surface waters to human pharmaceuticals*. Platform presentation. ACS Fall 2013 National Meeting & Exposition, 8-12 September 2013, Indianapolis, IN.
- Fenner, K.; Junker, Th.; Hennecke, D. *Persistence testing at the sediment-water interface: Too much effort for too little data?* Poster presentation. European Chemical Industry Council (CEFIC AISBL) LRI workshop. 15 November 2012, Bruxelles, Belgium.
- Johnson, D. R.; Helbling, D. E.; Lee, T. K.; Park, J.; Ackermann, M.; Fenner, K. *Micropollutant biotransformation capacity of a microbial community is positively correlated with its diversity*. Platform presentation. ASM 2012, 112th General Meeting, 16-19 June 2012, San Francisco, USA.
- Helbling, D. E.; Hollender, J.; Kohler, H.-P. K.; Singer, H.; Fenner, K. *A self-consistent set of biotransformation data for the further development of a biodegradation pathway prediction*. Poster presentation. 13th EuCheMS International Conference on Chemistry and the Environment (ICCE), 12-14 September 2011, Zürich, Switzerland.
- Fenner, K.; Loos, M.; Krauss, M. *Soil biodegradation half-lives for diverse pesticides: What can we learn from a consistently derived set of data?* Poster presentation. 13th EuCheMS

- International Conference on Chemistry and the Environment (ICCE), 12-14 September 2011, Zürich, Switzerland.
- Helbling, D. E.; Fenner, K.; Ackermann, M.; Johnson, D. *Can biotransformation rates of microbial communities be linked to gene expression levels?* Platform presentation. 13th EuCheMS International Conference on Chemistry and the Environment (ICCE), 12-14 September 2011, Zürich, Switzerland.
- Helbling, D. E.; Fenner, K.; Ackermann, M.; Johnson, D. *Can biotransformation of microbial communities be linked to gene expression profiles?* Platform presentation. ACS Fall 2011 National Meeting & Exposition, 28 August -1 September 2011, Denver, CO.
- Fenner, K.; Helbling, D. E.; Kramer, S.; Ellis, L.; Wackett, L. *A combined expert knowledge and data-driven approach to predict biotransformation pathways of organic contaminants.* Platform presentation. SETAC Europe, 21st Annual Meeting, 15-19 May 2011, Milano, Italy.
- Fenner, K.; Kern, S.; Baumgartner, R.; Helbling, D. E.; Singer, H.; Loos, M. J.; Schwarzenbach, R. P.; Hollender, J. *A tiered procedure for assessing the formation of biotransformation products of pharmaceuticals and biocides during activated sludge treatment.* Poster presentation. SETAC Europe, 21st Annual Meeting, 15-19 May 2011, Milano, Italy.
- Helbling, D.E.; Ackermann, M.; Fenner, K.; Kohler, H.-P. K.; Johnson, D. R. *Biotransformation rates and gene transcript abundances: New insights on micropollutant degradation in wastewater treatment plants?* Platform presentation. International Water Association (IWA) Micropol & Ecohazard, 11-13 July 2011, Sydney, NSW, Australia.
- Helbling, D. E.; Hollender, J.; Kohler, H.-P. K.; Singer, H.; Fenner, K. *An experimental framework to aid in the development of an environmentally focused biodegradation pathway prediction system.* Platform presentation. 241st ACS National Meeting & Exposition, 27-31 March 2011, Anaheim, California, USA.
- Kern, S.; Singer, H.; Hollender, J.; Schwarzenbach, R.P.; Fenner, K. *Identification of transformation products in aquatic environments by high resolution mass spectrometry.* Platform presentation. Swiss Group for Mass Spectrometry (SGMS), 27th Annual Meeting, 29-30 October 2009, Beatenberg, Switzerland.
- Helbling, D.E.; Hollender, J.; Kohler, H.-P.; Fenner, K. *Generating and interpreting data to validate biodegradation predictions.* Platform presentation. Eawag Action Field Symposium, 15 September 2009, Dübendorf, Switzerland.
- Helbling, D.E.; Hollender, J.; Kohler, H.-P.; Fenner, K. *Factors Influencing the Preferred Biodegradation Pathways of Xenobiotics with Amide Functionality.* Platform presentation. ICCE 2009, 12th EuCheMS International Conference on Chemistry and the Environment, 14-17 June 2009, Stockholm, Sweden.
- Fenner, K.; Baumgartner, R.; Kern, S.; Helbling, D.E.; Hollender, J. *Prediction and Analysis of Biotransformation Product Formation during Sewage Treatment.* Platform presentation. ICCE 2009, 12th EuCheMS International Conference on Chemistry and the Environment, 14-17 June 2009, Stockholm, Sweden.
- Helbling, D.E.; Hollender, J.; Kohler, H.P.; Fenner, K. *A biodegradation test system to investigate microbially-mediated transformations of xenobiotics under environmentally relevant conditions.* Poster presentation. International Water Association (IWA) Micropol and Ecohazard, 8-10 June 2009, San Francisco, CA.
- Helbling, D.E.; Hollender, J.; Kohler, H.-P.; Fenner, K. *Hydrolysis vs. Oxidation: Investigating Structural Influences behind Preferred Biodegradation Pathways of Xenobiotics with Amide Functionality.* Poster presentation. SETAC Europe, 19th Annual Meeting, 1-4 June 2009, Göteborg, Sweden.
- Kern, S.; Schoger, M.; Singer, H.; Hollender, J.; Schwarzenbach, R.P.; Fenner, K. *Input Dynamics of Pesticide Transformation Products into Surface Waters.* Platform presentation. SETAC Europe, 19th Annual Meeting, 1-4 June 2009, Göteborg, Sweden.
- Tuelp, H.; Goss, K.-U.; Schwarzenbach, R.P.; Fenner, K. *pH-abhängige Sorption von organischen Säuren an Bodenorganisches Material.* Platform presentation. SETAC German Language Branche/GdCh Jahrestagung, 23-26 September 2008, Frankfurt, Germany.
- Kern, S.; Singer, H.; Hollender, J.; Schwarzenbach, R.P.; Fenner, K. *Transformationsprodukte von Mikroverunreinigungen im Wasser – Identifizierung mit hochauflösender Massenspektrometrie.* Platform presentation. SETAC German Language Branche/GdCh Jahrestagung, 23-26 September 2008, Frankfurt, Germany.
- Kern, S.; Singer, H.; Hollender, J.; Schwarzenbach, R.P.; Fenner, K. *Identification of transformation products in aquatic environments by high resolution mass spectrometry.*

- Platform presentation. SETAC Europe, 18th Annual Meeting, 25-29 May 2008, Warsaw, Poland.
- Huntscha, S.; Fenner, K.; Singer, H. *Eintrags- und Abbauverhalten von Metolachlor-ESA im Oberflächengewässer*. Poster presentation. Jahrestagung der GDCh-Fachgruppe Umweltchemie und Ökotoxikologie, 26-28 September 2007, Osnabrück, Germany.
- Larsbo, M.; Lapen, D.; Topp, E.; Abbaspour, K.; Fenner, K.; Stamm, C. *Physically based solute transport models as tools in environmental risk assessments for pharmaceuticals*. Platform presentation. 2007 International Conference on Pharmaceuticals in the Environment, 19-21 September 2007, York, UK.
- Schneider, M.; Stamm, C.; Fenner, K. *Evaluating scenarios to assess the exposure of surface waters to veterinary medicines in Europe*. Platform presentation. 2007 International Conference on Pharmaceuticals in the Environment, 19-21 September 2007, York, UK.
- Fenner, K.; Ellis, L.; Wackett, L. *Biodegradation pathway prediction using metabolic logic*. Platform presentation. 2007 International Conference on Pharmaceuticals in the Environment, 19-21 September 2007, York, UK.
- Fenner, K.; Kern, S.; Singer, H.; Gasser, L.; Hollender, J. *A combined modeling and monitoring screening approach to assess exposure to pesticide transformation products in surface waters*. Platform presentation. 2007 AWRA Summer Specialty Conference on "Emerging Contaminants of Concern in the Environment", 25-27 June 2007, Vail, Colorado, USA.
- Fenner, K.; Lanz, V.; Borsuk, M.; Scheringer, M. *Including statistical models of soil degradation into a global fate model*. Platform presentation. SETAC Europe, 16th Annual Meeting, 7-11 May 2006, The Hague, The Netherlands.
- Tülp, H.; Fenner, K.; Goss, K.-U.; Schwarzenbach, R. M. *Partitioning behaviour of complex environmental chemicals - Determination of molecular interaction descriptors using HPLC*. Platform presentation. SETAC Europe, 16th Annual Meeting, 7-11 May 2006, The Hague, The Netherlands.
- Schneider, M.; Fenner, K. *Selecting Exposure Scenarios for Veterinary Pharmaceuticals at a European Scale*. Platform presentation. SETAC Europe, 16th Annual Meeting, 7-11 May 2006, The Hague, The Netherlands.
- Gasser, L.; Fenner, K.; Scheringer, M. *Prioritisation of transformation products of organic contaminants according to their exposure potential*. Poster presentation. SETAC Europe, 16th Annual Meeting, 7-11 May 2006, The Hague, The Netherlands.
- Fenner, K.; Herensperger, B.; Singer, H.; Chèvre, N.; Schwarzenbach, R. *Einzugsgebietsmodell für die Vorhersage des Expositionsmusters von Pestiziden und ihren Umwandlungsprodukten*. Platform presentation. SETAC GLB, 3rd Joint Annual Meeting, 29 September 2005, Basel, Switzerland.
- Tülp, H.; Fenner, K.; Schwarzenbach, R. *Prognose des Verteilungsverhaltens komplexer Umweltchemikalien mittels Polyparameter-Ansatz*. Poster presentation. SETAC GLB, 3rd Joint Annual Meeting, 29 September 2005, Basel, Switzerland.
- Gasser, L.; Fenner, K.; Scheringer, M. *Priorisierung von Umwandlungsprodukten von Pestiziden in Oberflächengewässern*. Poster presentation. SETAC GLB, 3rd Joint Annual Meeting, 29 September 2005, Basel, Switzerland.
- Richter, M.; Fenner, K.; Schwarzenbach, R. *Bioverfügbarkeit von Sulfonamiden in Böden: Entwicklung eines Masses für die Aufnahme von Sulfathiazole durch Bakterien*. Poster presentation. SETAC GLB, 3rd Joint Annual Meeting, 29 September 2005, Basel, Switzerland.
- Schneider, M.; Fenner, K. *Probabilistische Szenarioauswahl in der Umweltrisikoaanalyse für Tierarzneimittel*. Poster presentation. SETAC GLB, 3rd Joint Annual Meeting, 29 September 2005, Basel, Switzerland.