

# **Curriculum Vitae for Markus Brinkmann, PhD**

**School of Environment and Sustainability, Toxicology Centre  
University of Saskatchewan**

## **1. PERSONAL**

Born May 16, 1986  
Employee Number: 7451438

## **2. DEGREES**

PhD, RWTH Aachen University, Aachen, Germany, 2015, Biology  
MSc, RWTH Aachen University, Aachen, Germany, 2011, Ecotoxicology  
BSc (Hon.), RWTH Aachen University, Aachen, Germany, 2009, Biology

## **3. CREDENTIALS**

Nil

## **4. APPOINTMENTS AND PROMOTIONS (U OF S)**

Assistant Professor, tenure track, School of Environment and Sustainability, August 2018-present

## **5. MEMBERSHIPS AND AFFILIATIONS**

### **5.1 Associate Memberships at the U of S**

Nil

### **5.2 Adjunct Appointments at Other Institutions**

Nil

### **5.3 Affiliations**

Toxicology Centre, Affiliation, 2018-present  
Global Institute for Water Security, Affiliation, 2018-present  
Center for Hydrology, Affiliation, 2018-present

## **6. PREVIOUS POSITIONS RELEVANT TO U OF S EMPLOYMENT**

Banting Fellowship of the Natural Sciences and Engineering Research Council of Canada (NSERC),  
University of Saskatchewan, Saskatoon, Canada, 2016-2018

Leader of the team „Experimental and Computational Fish Ecotoxicology“ at the Department of  
Ecosystem Analysis, Institute for Environmental Research, RWTH Aachen University, Aachen  
Germany, 2014-2016

Research associate at the Department of Ecosystem Analysis, Institute for Environmental Research,  
RWTH Aachen University, Aachen Germany, 2011-2016

## 7. LEAVES

Nil

## 8. RECOGNITIONS

### 8.1 Personal Awards

NSERC Early Career Research Supplement, associated with NSERC Discovery Grant  
“Understanding the impacts of environmental factors on uptake and effects of ionizable organic chemicals in aquatic organisms” – 12,500 CAD – 2019

### 8.2 Awards to Supervised Students

Chelsea Grimard – Toxicology Graduate Student Association (TGSA) Seminar Awards, 2<sup>nd</sup> place – June 2019

Saurabh Prajapati – Best Poster Presentation – Society of Environmental Toxicology and Chemistry North America, Prairie Northern Chapter (PNC) – June 2019

Chelsea Grimard – MITACS Globalink Research Abroad Award – May 2019 – 6,000 CAD

Saurabh Prajapati – Best Poster Presentation, 3<sup>rd</sup> place – School of Environment and Sustainability Symposium Day – University of Saskatchewan – March 2019

Stephanie MacPherson – Fisher Scientific Toxicology Undergraduate Seminar Award, 1<sup>st</sup> place – University of Saskatchewan – March 2019 – 150 CAD

Stephanie MacPherson – Office of the Vice President Research Undergraduate Student Research Award (OVPR-USRA) – University of Saskatchewan – May-August 2019 – 2,250 CAD

Annika Mangold-Döring – Society of Environmental Toxicology and Chemistry North America Travel Award – November 2019 – 500 CAD

Annika Mangold-Döring – PROMOS Study Abroad Scholarship – 2018-2019 – 3,300 CAD

Ulyana Fuchylo – Society of Environmental Toxicology and Chemistry North America Travel Award – November 2019 – 500 CAD

Chelsea Grimard – Society of Environmental Toxicology and Chemistry North America Travel Award – November 2019 - 400 CAD

Chelsea Grimard – International Student and Study Abroad Centre of the University of Saskatchewan Travel Award – November 2019 - 450 CAD

Ulyana Fuchylo – Dr. Richard C. Playle Award for Outstanding BSc Thesis in Ecotoxicology– October 2018 – 300 CAD

### **---Appointment as Assistant Professor at U of S (August 2018)---**

Markus Schmitz – PROMOS Study Abroad Scholarship – 2018 – 3,300 CAD

Natalie Dallmann – PROMOS Study Abroad Scholarship – 2018 – 3,300 CAD

Ulyana Fuchylo – Fisher Scientific Toxicology Undergraduate Research Award, 1<sup>st</sup> place – May 2018 – 500 CAD

## 9. TEACHING ACTIVITIES

### 9.1 Scheduled instructional activity

YEAR	COURSE	TYPE	ENRL.	YIH	YCSH
2018-19	ENVS 805.3 Data Analysis and Management Lec <i>(co-taught with Dr. Graham Strickert)</i>	Lec	28	39	1,092
	ENVS 805.3 MWS Delivery of ENVS 805.3 Lec <i>(co-taught with Dr. Graham Strickert, overall SEEQ rating: 4.78 of 5.00)</i>	Lec	14	39	546

## 9.2 Unscheduled instructional activity

*\*Note: I distinguish between “Guest lectures” as in-class seminars on my own research that require little preparation and “Guest modules” as materials prepared specifically for a class that require significant time investment when first offered ( $\geq 8$  hours).*

Guest module – TOX 200, Poisons and Pollutants – The Rhine red, the fish dead – 2019

Guest module – GEOG 427, Advanced Hydrology – Introduction to the field of Toxicology – 2018

Guest lecture – TOX 402, Systemic Toxicology – Disruption of the Hypothalamus-Pituitary-Gonad (HPG) axis – 2018

Guest lecture – ENVS 990, Seminar in Environment and Sustainability – SENS Speed Networking – 2018

Guest module – ENVS 809, Doctoral Seminar in Environment and Sustainability– Xenohormones in the Aquatic Environment – 2018

Guest lecture – ANBI 420, Comparative Endocrinology – Endocrine Physiology: Mechanisms of Hormone Action – 2018

### ---Appointment as Assistant Professor at U of S (August 2018)---

Guest lecture – TOX 402, Systemic Toxicology – Disruption of the Hypothalamus-Pituitary-Gonad (HPG) axis – 2017

Guest module – TOX 402, Systemic Toxicology – Disruption of the Hypothalamus-Pituitary-Gonad (HPG) axis – 2016

Guest module – TOX 844, Toxicology Techniques – Determination of the dioxin-like potential of chemicals using the EROD assay – 2017

RWTH Aachen University, Germany – Practical course ‘Practical experience in Ecotoxicology’, graduate level course in Biology and Ecotoxicology – 2008-2016

RWTH Aachen University, Germany – Practical course ‘In-depth module Ecotoxicology’, undergraduate level course in Biology – 2009-2016

RWTH Aachen University, Germany – Limnological and botanical field-trips ‘Module Ecology’, undergraduate level course in Biology – 2009-2016

RWTH Aachen University, Germany – Practical course ‘Ecology for novice teachers’ – 2014

RWTH Aachen University, Germany – Individual lectures within the course ‘Introduction to Ecology’, undergraduate level course in Environmental Engineering – 2013-2014

RWTH Aachen University, Germany – Individual lectures within the course ‘Concepts of Ecotoxicology’, graduate level course in Biology and Ecotoxicology – 2013

Department of Hydraulic Engineering and Water Resources Management at Stuttgart University, Germany – Guest lecture ‘Toxicity and risk assessment of fluvial sediments and suspended matter: a short overview of past and recent developments in sediment toxicity assessment’ in the Limnic Ecology course – 2011

## 9.3 Course and program development

*Programs designed and delivered*

Professional Master of Water Security (MWS), member of ad-hoc committee (2018)

## **9.4 Teaching Materials**

Nil

## **9.5 Other teaching-related activities**

*SENS teaching improvement workshops:*

SENS Retreat and Curriculum Development Workshop, April 17-18, 2019

MWS Subject Matter Expert Workshops, June 20, 2018 and August 7, 2018

*Programming Through the Gwenna Moss Centre for Teaching Effectiveness:*

Creating Your Course Syllabus, March 11, 2019

## **10. SUPERVISION AND ADVISORY ACTIVITIES**

### **10.1 Undergraduate student supervision**

*Supervised*

Stephanie MacPherson, 2018-2019. BSc Honours. Developing an improved *in vitro* assay to simultaneously assess the bioavailability and hepatic CYP1A induction of dioxin-like compounds in rainbow trout. Toxicology Undergraduate Program.

*Co-supervised*

Ulyana Fuchylo, 2017-2018. BSc Honours. Does inflammation facilitate permeation of organic chemicals through gill epithelia? Toxicology Undergraduate Program.

### **---Appointment as Assistant Professor at U of S (August 2018)---**

Anureet Tiwana, 2016-2017. BSc Honours. Effects of organic UV filters on steroidogenesis in the human adrenocortical carcinoma cell line H295R. Toxicology Undergraduate Program.

Nancy Apenova (née Gill), 2016-2017. BSc Honours. Towards improved methods for determination of aldehyde oxidase activity in fish. Toxicology Undergraduate Program.

Jana Gerhard, 2015. BSc Honours. A ligand interaction model to predict the effects of binary mixtures of TCDD and dioxin-like PCBs in the H4IIE-luc assay. RWTH Aachen University, Aachen, Germany; Biology Undergraduate Program.

Sven Koglin, 2013. BSc Honours. EROD-Induktion in Leberexplantat- und Primärzellkulturen der Regenbogenforelle durch Dioxine und dioxinähnliche Substanzen. RWTH Aachen University, Aachen, Germany; Biology Undergraduate Program.

Hannah Schaffrath, 2012. BSc Honours. Determination of metallothionein content in the liver of rainbow trout using a sensitive and specific RP-HPLC-FLD method. RWTH Aachen University, Aachen, Germany; Biology Undergraduate Program.

Michael-Patrick Hennig, 2011. BSc Honours. Analysis of the toxicity of polycyclic aromatic hydrocarbons in resuspended sediments with various biomarkers. RWTH Aachen University, Aachen, Germany; Biology Undergraduate Program.

Nina Gottselig, 2010. BSc Honours. Mutagenic activity in sediments and fish samples of the quarry pond Karlskopf of River Rhine: linking effects from the laboratory to the field. RWTH Aachen University, Aachen, Germany; Biology Undergraduate Program.

## 10.2 Graduate student supervision

Name	Degree	Department	Subject Area	Time frame
<i>Supervised Graduate Students</i>				
Saurabh Prajapati	MSEM	SENS	Wastewater Quality	2018-
<i>Co-supervised Graduate Students</i>				
Hayley Popick	MSc	Civil Eng.	Wastewater Quality	2019-
Ankita Sahrawat	MWS	SENS	Biomonitoring	2019-
Mercy Ogbogboyibo	MWS	SENS	Biomonitoring	2019-
Chelsea Grimard	MSc	Toxicology	Aquatic Toxicology	2017-
Anne-Kathrin Müller	PhD	Aachen University	Aquatic Toxicology	2016-

## 10.3 Graduate Theses Supervised

### *Co-supervised*

Annika Mangold Döring, 2018-2019, MSc., A Novel Multi-Species Physiologically-Based Toxicokinetic Modelling Approach in Support of Ecological Risk Assessment of Chemicals. Institute for Environmental Research, RWTH Aachen University.

### **---Appointment as Assistant Professor at U of S (August 2018)---**

Sven Koglin, 2015-2016, MSc., Molecular and biochemical effects of dioxins and dioxin-like chemicals in roach following injection and exposure to suspended sediments. Institute for Environmental Research, RWTH Aachen University.

Sebastian Steffens, 2015-2016, MSc., A versatile and low-cost open source pipetting robot for automation of toxicological and ecotoxicological bioassays. Institute for Environmental Research, RWTH Aachen University.

Miriam Zimmer, 2014-2015, MSc., Desorption and bioavailability of polychlorinated biphenyls, polycyclic aromatic hydrocarbons and heterocyclic compounds present in sediments. Institute for Environmental Research, RWTH Aachen University.

Carolin Gembé, 2013-2014, MSc., Optimization and Downscaling of the H4IIE-luc Bioassay for High Throughput Screening of Dioxin-like Activity in Sediments. Institute for Environmental Research, RWTH Aachen University.

Anne-Kathrin Müller, 2013-2014, MSc., Ultrastructural alterations and genotoxicity in yellow perch (*Perca flavescens*) from a biological mercury hotspot in Nova Scotia, Canada. Institute for Environmental Research, RWTH Aachen University.

Nora Niehus, 2012-2013, MSc., Exposure time-dependent Aryl hydrocarbon receptor-mediated activity of PCB no. 156 and Benzo[*k*]fluoranthene using the EROD assay, micro EROD and H4IIE-luc assay. Institute for Environmental Research, RWTH Aachen University.

Henning Herrmann, 2012-2013, MSc., Bioavailability and toxicity of sediment-borne contaminants during remobilization in an annual flume - Study with passive samplers and biomarkers in rainbow trout (*Oncorhynchus mykiss*). Institute for Environmental Research, RWTH Aachen University.

Sandra Stoffels, 2012-2013, German Diploma (MSc. equivalent), A biomarker study to assess the contaminant exposure of European Eels (*Anguilla anguilla*) in German river catchments in context of the European Data Collection Framework. Institute for Environmental Research, RWTH Aachen University.

Jochen Kuckelkorn, 2010-2011, German Diploma (MSc. equivalent), Untersuchung der Metalltoxizität resuspendierter Sedimente anhand verschiedener Biomarker. Institute for Environmental Research, RWTH Aachen University.

#### *Visiting Students*

Saskia Mertins, 2019, M.Sc. (RWTH Aachen University), Transcriptional Analysis of Zebrafish Samples, funding through the RWTH Aachen University Fuel Science Center (FSC).

#### **---Appointment as Assistant Professor at U of S (August 2018)---**

Markus Schmitz, 2018, M.Sc. (RWTH Aachen University), Bioavailability of water-borne polycyclic aromatic hydrocarbons, PROMOS Study Abroad Scholarship.

Sophie Oster, 2018, M.Sc. (RWTH Aachen University), Bioavailability and effects of water-borne hexabromocyclododecane, PROMOS Study Abroad Scholarship.

Natalie Dallmann, 2018, M.Sc. (RWTH Aachen University), Transcriptional effects of sediment extracts in fish liver cells, Undergraduate Research Opportunities Program (UROP).

Bryanna Eisner, 2014, BSc. Hons. (University of Saskatchewan), Effects of dioxin-like chemicals in non-model fish species. I hosted Bryanna at RWTH Aachen University as part of the Undergraduate Research Opportunities Program (UROP).

#### **10.4 Post-doctoral supervision**

Nil

#### **10.5 Staff supervision**

*Supervised Summer Students (SS) and Research Assistants (RA)*

Stephanie MacPherson	SS	SENS	Bioavailability Studies	2019
Mathias Reininghaus	RA	RWTH Aachen	Exposure Studies	2013

#### **10.6 Other Advisory activities**

*Member of Student Advisory Committee – active students (\* indicates Committee Chair)*

*Richard Agyeman	PhD	SENS	Climate Modelling	2019-
*Zachary Lang	MES	SENS	Water Quality Modelling	2019-
Luisa Porras Mendoza	MSc	Civil Eng.	Groundwater Monitoring	2019-
Phillip Ankley	MSc	Toxicology	Aquatic Toxicology	2019-
*Ulyana Fuchylo	MSc	Toxicology	Aquatic Toxicology	2018-
*Susari M.I. Bandaralage	MSc	Toxicology	Aquatic Toxicology	2018-
*Zachary Person	MES	SENS	Biomonitoring	2018-
Solomon Adeleke	PhD	Toxicology	Aquatic toxicology	2018-
Kamran Shekh	PhD	Toxicology	Aquatic toxicology	2018-

*External Examiner for Theses Outside the U of S*

External Pre-Examiner – Pia Välijalo, PhD, Aalto University, Finland, May 2019

## 11. BOOKS AND CHAPTERS IN BOOKS

### 11.1 Authored Books

Nil

### 11.2 Edited Books

Nil

### 11.3 Chapters in Books

*Published*

**Brinkmann, M.**, Preuss, T.G., Hollert, H. (2016) Advancing *In Vitro–In Vivo* Extrapolations of Mechanism-Specific Toxicity Data Through Toxicokinetic Modeling. Book title: '*In vitro* Environmental Toxicology - Concepts, Application and Assessment', Publisher: Springer International Publishing Switzerland, Editors: Reifferscheid, G., Buchinger, S.

## 12. PAPERS IN REFEREED JOURNALS (STUDENTS UNDERLINED)

62. Freese, M., Rizzo, L., Pohlmann, J.-D., Marohn, L., Witten, P.E., Gremse, F. Rütten, S., Güvener, N., Michael, S., Wysujack, K., Lammers, T., Kiessling, F., Hollert, H., Hanel, R., **Brinkmann, M.** (2019) Bone resorption and body reorganization during maturation induce maternal transfer of toxic metals in anguillid eels. *Proceedings of the National Academy of Sciences of America (PNAS)* 116: 11339-11344.
61. **Brinkmann, M.**, Schneider, A.L., Bluhm, K., Schiwy, S., Lehmann, G., Deutschmann, B., Müller, A., Tiehm, A., Hollert, H. (2019) Ecotoxicity of NSO-heterocycles (NSO-HET) and short-chained alkyl phenols (SCAP) commonly detected in contaminated groundwater. *Environmental Toxicology and Chemistry* 38: 1343-1355.
60. **Brinkmann, M.**, Barz, B., Carrière, D., Velki, M., Smith, K., Meyer-Alert, H., Müller, Y., Thalmann, B., Bluhm, K., Schiwy, S. (2019) Bioactivation of quinolines in a recombinant estrogen receptor transactivation assay is catalyzed by N-methyltransferases. *Chemical Research in Toxicology* 32: 698-707.
59. Deutschmann, B., Müller, A.K., Hollert, H., **Brinkmann, M.** (2019) Assessing the fate of brown trout (*Salmo trutta*) environmental DNA in a natural stream using a sensitive and specific dual-labelled probe. *Science of The Total Environment* 655: 321-327.

---Appointment as Assistant Professor at U of S (August 2018)---

58. Hollert, H., Crawford, S., Brack, W., **Brinkmann, M.**, Fischer, E., Hartmann, K., Keiter, S., Ottermanns, R., Ouellet, J., Rinke, K., Rösch, M., Ross,-Nickoll, M., Schäffer, A., Schuth, C., Schulze, T., Schwarz, A., Seiler, T.-B., Wessels, M., Hinderer, M., Schwalb, A. (2018) Looking back - Looking forward: A novel multi-time slice weight-of-evidence approach for defining reference conditions to assess the impact of human activities on lake systems. *Science of the Total Environment* 626: 1036-1046.
57. Apenova, N., Peng, H., Hecker, M., **Brinkmann, M.** (2018) A rapid and sensitive fluorometric method for determination of aldehyde oxidase activity. *Toxicology and Applied Pharmacology* 341: 30-37.

- 56.** Brinkmann, M., Hecker, M., Giesy, J.P., Jones, P.D., Ratte, H.T., Hollert, H., Preuss, T.G. (2018) Generalized concentration addition accurately predicts estrogenic potentials of mixtures and environmental samples containing partial agonists. *Toxicology in Vitro* 46: 294-303.
- 55.** Eichbaum, K., **Brinkmann, M.**, Nuesser, L., Gembé, C., Ohlig, M., Buchinger, S., Reifferscheid, G., Hecker, M., Giesy, J.P., Hollert, H. (2018) *In vitro* tools for the toxicological evaluation of sediments and dredged materials: intra- and inter-laboratory comparisons of chemical and bioanalytical methods. *Environmental Science and Pollution Research* 25: 4037-4050.
- 54.** Crawford, S. E., Cofalla, C., Aumeier, B., **Brinkmann, M.**, Classen, E., Esser, V., Ganal, C., Kaip, E., Häussling, R., Lehmkuhl, F., Letmathe, P., Müller, A.-K., Rabinovitch, I., Reicherter, K., Schwarzbauer, J., Schmitt, M., Stauch, G., Wessling, M., Yüce, S., Hecker, M., Kidd, K. A., Altenburger, R., Brack, W., Schüttrumpf, H., Hollert, H. (2017) Project house water: a novel interdisciplinary framework to assess the environmental and socioeconomic consequences of flood-related impacts. *Environmental Sciences Europe* 29: 23.
- 53.** Steffens, S., Nüber, L., Seiler, T.-B., Ruchter, N., Schumann, M., Döring, R., Cofalla, C., Ostfeld, A., Salomons, E., Schüttrumpf, H., Hollert, H., **Brinkmann, M.** (2017) A versatile and low-cost open source pipetting robot for automation of toxicological and ecotoxicological bioassays. *PLoS ONE* 12(6): e0179636.
- 52.** Koch, J., Bui, T., Lundström Belleza, E., **Brinkmann, M.**, Hollert, H., Breitholtz, M. (2017) Temperature and food quantity effects on the harpacticoid copepod *Nitocra spinipes*: Combining *in vivo* bioassays with population modeling. *PLoS ONE* 12(3): e0174384.
- 51.** Xiao, H. & **Brinkmann, M.**, Thalmann, B., Schiwy, A., Große, B.S., Achten, C., Eichbaum, K., Gembé, C., Seiler, T., Hollert, H. (2017) Towards Streamlined Identification of Dioxin-like Compounds in Environmental Samples through Integration of Suspension Bioassay. *Environmental Science & Technology* 51: 3382-3390.
- 50.** Brack, W., Dulio, V., Ågerstrand, M., Allan, I., Altenburger, R., **Brinkmann, M.**, Bunke, D., Burgess, R.M., Cousins, I., Escher, B.I., Hernández, F.J., Hewitt, L.M., Hilscherová, K., Hollender, J., Hollert, H., Kase, R., Klauer, B., Lindim, C., López Herrázeza, D., Miègen, C., Munthe, J., O'Toole, S., Posthuma, L., Rüdel, H., Schäfer, R.B., Sengl, M., Smedes, F., van deMeent, D., van den Brink, P.J., van Gils, J., van Wezel, A.P., Vethaak, A.D., Vermeirssen, E., von der Ohe, P.C., Vrana, B. (2017) Towards the review of the European Union Water Framework Directive: Recommendations for more efficient assessment and management of chemical contamination in European surface water resources. *Science of the Total Environment* 576: 720–737.
- 49.** Koglin, S., Kammann, U., Eichbaum, K., Reininghaus, M., Eisner, B., Wiseman, S., Hecker, M., Buchinger, S., Reifferscheid, G., Hollert, H., **Brinkmann, M.** (2016) Toward understanding the impacts of sediment contamination on a native fish species: transcriptional effects, EROD activity, and biliary PAH metabolites. *Environmental Sciences Europe* 28:28.
- 48.** Xiao, H., Krauss, M., Floehr, T., Yan, Y., Bahlmann, A., Eichbaum, K., **Brinkmann, M.**, Zhang, X., Yuan, X., Brack, W., Hollert, H. (2016) Effect-directed analysis of aryl hydrocarbon receptor agonists in sediments from the Three Gorges Reservoir, China. *Environmental Science & Technology* 50: 11319-11328.

- 47.** Werner, I., Aldrich, A., Becker, B., Becker, D., **Brinkmann, M.**, Burkhardt, M., Caspers, N., Campiche, S., Chèvre, N., Düring, R.-A., Escher, B.I., Fischer, F., Giebner, S., Heye, K., Hollert, H., Junghans, M., Kienle, C., Knauer, K., Korkaric, M., Märkl, V., Muncke, J., Oehlmann, J., Reifferscheid, G., Rensch, D., Schäffer, A., Schiwy, S., Schwarz, S., Segner, H., Simon, E., Triebskorn, R., Vermeirssen, E.L.M., Wintgens, T., Zennegg, M. (2016) The 2015 Annual Meeting of SETAC German Language Branch in Zurich (7–10 September, 2015): Ecotoxicology and environmental chemistry—from research to application. *Environmental Sciences Europe* 28, 1-12.
- 46.** Michel, N., Freese, M., **Brinkmann, M.**, Pohlmann, J.-D., Hollert, H., Kammann, U., Haarich, M., Theobald, N., Gerwinski, W., Rotard, W., Hanel, R. (2016) Fipronil and two of its transformation products in water and European eel from the river Elbe. *Science of the Total Environment* 568: 171-179.
- 45.** Förstner, U., Hollert, H., **Brinkmann, M.**, Eichbaum, K., Weber, R., Salomons, W. (2016) Dioxin in the Elbe river basin: policy and science under the water framework directive 2000–2015 and toward 2021. *Environmental Sciences Europe* 28: 9.
- 44.** Eichbaum, K., **Brinkmann, M.**, Nuesser, L., Buchinger, S., Reifferscheid, G., Codling, G., Jones, P., Giesy, J.P., Hecker, M., Hollert, H. (2016) Bio-analytical and instrumental screening of the uptake of sediment-borne, dioxin-like compounds in roach (*Rutilus rutilus*). *Environmental Science and Pollution Research* 23: 12060-12074.
- 43.** **Brinkmann, M.**, Schlechtriem, C., Reininghaus, M., Eichbaum, K., Buchinger, S., Reifferscheid, G., Hollert, H., Preuss, T.G. (2016) Cross-Species Extrapolation of Uptake and Disposition of Neutral Organic Chemicals in Fish Using a Multispecies Physiologically-Based Toxicokinetic Model Framework. *Environmental Science and Technology* 50: 1914–1923.
- 42.** **Brinkmann, M.** & Rizzo, L.Y., Lammers, T., Gremse, F., Schiwy, S., Kiessling, F., Hollert, H. (2016) Micro-computed tomography ( $\mu$ CT) as a novel method in ecotoxicology — determination of morphometric and somatic data in rainbow trout (*Oncorhynchus mykiss*). *Science of the Total Environment* 543: 135-139.
- 41.** **Brinkmann, M.** & Koglin, S., Eisner, B., Wiseman, S., Hecker, M., Eichbaum, K., Thalmann, B., Buchinger, S., Reifferscheid, G., Hollert, H. (2016) Characterization of transcriptional responses to dioxins and dioxin-like contaminants in roach (*Rutilus rutilus*) using whole transcriptome analysis. *Science of the Total Environment* 541: 412-423.
- 40.** Schulze-Sylvester, M., Heimann, W., Maletz, S., Seiler, T.-B., **Brinkmann, M.**, Zielke, H., Schulz, R., Hollert, H. (2015) Are sediments a risk? An ecotoxicological assessment of sediments from a quarry pond of the Upper Rhine River. *Journal of Soils and Sediments* 16: 1069–1080
- 39.** Schiwy, A. & **Brinkmann, M.**, Thiem, I., Guder, G., Winkens, K., Eichbaum, K., Nüßer, L., Thalmann, B., Buchinger, S., Reifferscheid, G., Seiler, T.-B., Thoms, B., Hollert, H. (2015) Determination of the dioxin-like potential of single substances, complex mixtures and environmental samples in the Micro-EROD assay with H4IIE cells. *Nature Protocols* 10: 1728–1741.
- 38.** **Brinkmann, M.**, Eichbaum, K., Reininghaus, M., Koglin, S., Kammann, U., Baumann, L., Segner, H., Zennegg, M., Buchinger, S., Reifferscheid, G., Hollert, H. (2015) Towards science-based sediment quality standards for dioxin-like compounds – effects of field-collected sediments in rainbow trout (*Oncorhynchus mykiss*). *Aquatic Toxicology* 166: 50-62.

- 37.** Brinkmann, M. & Freese, M. & Pohlmann, J.-D., Kammann, U., Preuss, T.G., Buchinger, S., Reifferscheid, G., Beiermeister, A., Hanel, R., Hollert, H. (2015): A physiologically based toxicokinetic (PBTK) model for moderately hydrophobic organic chemicals in the European eel (*Anguilla anguilla*). *Science of the Total Environment* 536: 279-287.
- 36.** Müller, A.-K., Brinkmann, M., Baumann, L., Stoffel, M.H., Segner, H., Kidd, K.A., Hollert, H. (2015) Morphological Alterations in the Liver of Yellow Perch (*Perca flavescens*) from a Biological Mercury Hotspot. *Environmental Science and Pollution Research* 22: 17330–17342.
- 35.** Brinkmann, M., Floehr, T., Xiao, H., Roß-Nickoll, M., Schäffer, A., Hollert, H. (2015) Wasserforschung gestern und heute: Integrierte Bewertung von Gewässern und Sedimenten im deutsch-chinesischen Kontext. *Bulletin of the German China Association* 58: 34-41.
- 34.** Lundström-Belleza, E., Brinkmann, M., Preuss, T.G., Breitholtz, M. (2014) Population-level effects in *Amphiascus tenuiremis*: Contrasting matrix- and individual-based population models. *Aquatic Toxicology* 157: 207–214.
- 33.** Eichbaum, K., Brinkmann, M., Buchinger, S., Reifferscheid, G., Hecker, M., Giesy, J.P., Engwall, M., van Bavel, B., Hollert, H. (2014) *In vitro* bioassays for detecting dioxin-like activity — Application potentials and limits of detection, a review. *Science of the Total Environment* 487: 37-48.
- 32.** Brinkmann, M. & Maletz, S.X., Krauss, M., Bluhm, K., Schiwy, S., Kuckelkorn, J., Tiehm, A., Brack, W., Hollert, H. (2014) Heterocyclic aromatic hydrocarbons show estrogenic activity upon metabolism in a recombinant transactivation assay. *Environmental Science and Technology* 48: 5892–5901.
- 31.** Hollert, H., Brinkmann, M., Hudjetz, S., Cofalla, C., Schüttrumpf, H. (2014). Hochwasser—ein unterschätztes Risiko. *Biologie in unserer Zeit*, 44(1), 44-51.
- 30.** Brinkmann, M., Eichbaum, K., Kammann, U., Hudjetz, S., Cofalla, C., Buchinger, S., Reifferscheid, G., Schüttrumpf, H., Preuss, T., Hollert, H. (2014) Physiologically-based toxicokinetic models help identifying the key factors affecting contaminant uptake during flood events. *Aquatic Toxicology* 152: 38-46.
- 29.** Brinkmann, M., Eichbaum, K., Buchinger, S., Reifferscheid, G., Bui, T., Schaeffer, A., Hollert, H., Preuss, T.G. (2014) Understanding receptor-mediated effects in rainbow trout: *in vitro-in vivo* extrapolation using physiologically based toxicokinetic models. *Environmental Science and Technology* 48: 3303-3309.
- 28.** Brinkmann, M., Blenkle, H., Salowsky, H., Bluhm, K., Schiwy, S., Tiehm, A., Hollert, H. (2014) Genotoxicity of Heterocyclic PAHs in the Micronucleus Assay with the Fish Liver Cell Line RTL-W1. *PLOS ONE* 9: e85692.
- 27.** Zubrod, J.P., Jevtic, D.M., Melato, A.M., Englert, D., Weil, M., Brockmeier, E., Floehr, T., Knezevic, V., Agatz, A., Brinkmann, M. (2013) News from the SETAC Europe Student Advisory Council (April 2013) - the 3rd Young Environmental Scientists (YES) meeting at the Jagiellonian University, Poland. *Environmental Sciences Europe* 25: 16.
- 26.** Hudjetz, S., Herrmann, H., Cofalla, C., Brinkmann, M., Kammann, U., Schäffer, A., Schüttrumpf, H., Hollert, H. (2013) An attempt to assess the relevance of flood events—biomarker response of rainbow trout exposed to resuspended natural sediments in an annular flume. *Environmental Sciences and Pollution Research* 21: 13744-13757.

- 25.** Otte, J., Keiter, S., Faßbender, C., Higley, E.B., Suares Rocha, P., **Brinkmann, M.**, Wahrendorf, D.-S., Manz, W., Wetzel, M.A., Braunbeck, T., Giesy, J.P., Hecker, M., Hollert, H. (2013) Contribution of Priority PAHs and POPs to Ah Receptor-Mediated Activities in Sediment Samples from the River Elbe Estuary, Germany. *PLoS ONE* 8: e75596.
- 24.** Kammann, U., **Brinkmann, M.**, Freese, M., Pohlmann, J.-D., Stoffels, S., Hollert, H., Hanel, R. (2013) PAH metabolites, GST and EROD in European eel (*Anguilla anguilla*) as possible indicators for eel habitat quality in German rivers. *Environmental Sciences and Pollution Research* 21: 2519-2530.
- 23.** Eichbaum, K., **Brinkmann, M.**, Buchinger, S., Hecker, M., Engwall, M., van Bavel, B., Reifferscheid, G., Hollert, H. (2013) The dioRAMA project: assessment of dioxin-like activity in sediments and fish (*Rutilus rutilus*) in support of the ecotoxicological characterization of sediments. *Journal of Soils and Sediments* 13: 770-774.
- 22.** **Brinkmann, M.** & Hudjetz, S., Kuckelkorn, J., Yu, T., Cofalla, C., Roger, S., Kammann, U., Schüttrumpf, H., Hollert, H. (2013) How flood events affect rainbow trout: Evidence of a biomarker cascade in rainbow trout after exposure to PAH contaminated sediment suspensions. *Aquatic Toxicology* 128-129: 13-24.
- 21.** Cofalla, C., Hudjetz, S., Roger, S., **Brinkmann, M.**, Frings, R., Wölz, J., Schmidt, B., Schäffer, A., Kammann, U., Hecker, M., Hollert, H., Schüttrumpf, H. (2012) A combined hydraulic and toxicological approach to assess re-suspended sediments during simulated flood events—part II: an interdisciplinary experimental methodology. *Journal of Soils and Sediments* 12: 429-442.
- 20.** Peddinghaus, S., **Brinkmann, M.**, Bluhm, K., Sagner, A., Hinger, G., Braunbeck, T., Eisenträger, A., Tiehm, A., Hollert, H., Keiter, S. (2012) Quantitative assessment of the embryotoxic potential of NSO-heterocyclic compounds using zebrafish (*Danio rerio*). *Reproductive Toxicology* 33: 224-232.
- 19.** **Brinkmann, M.**, Hudjetz, S. Herrmann, H., Cofalla, C., Kammann, U., Hecker, M., Schüttrumpf, H., Schäffer, A., Hollert, H. (2012) Floodsearch: Hochwasser im Labormaßstab - Ökotoxikologie und Wasserbau arbeiten Hand in Hand bei der Hochwasserfolgenbewertung. *Mitteilungen der GDCh Fachgruppe Umweltchemie und Ökotoxikologie*, 4/2012.
- 18.** Zubrod, J.P., Jevtic, D.M., Melato, A.M., Agatz, A., Englert, D., Floehr, T., Knezevic, V., Weil, M., Brinkmann, M. (2012) News from the SETAC Europe Student Advisory Council - September 2012. *Environmental Sciences Europe* 2012, 24: 27.
- 17.** **Brinkmann, M.**, Kaiser, D., Peddinghaus, S., Berens, M., Bräunig, J., Galic, N., Bundschuh, M., Zubrod, J.P., Dabrunz, A., Liu, T., Melato, M., Mieiro, C., Sdepanian, S., Westman, O., Kimmel, S., Seiler, T.-B. (2011) The Second Young Environmental Scientist (YES) meeting 2011 at RWTH Aachen University - environmental challenges in a changing world. *Environmental Sciences Europe* 23: 29.
- 16.** Preuss, T.G., **Brinkmann, M.**, Lundström, E., Chandler, T.G., Bengtsson, B.E., Breitholtz, M. (2011) An individual-based modeling approach for evaluation of endpoint sensitivity in harpacticoid copepod life-cycle tests and optimization of test design. *Environmental Toxicology and Chemistry* 30: 2353-2362.
- 15.** Schüttrumpf, H., **Brinkmann, M.**, Cofalla, C., Frings, R.M., Gerbersdorf, S.U., Hecker, M., Hudjetz, S., Kammann, U., Lennartz, G., Roger, S., Schäffer, A., Hollert, H. (2011) A new approach to investigate the interactions between sediment transport and ecotoxicological processes during flood events. *Environmental Sciences Europe* 2011, 23: 39.

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13. Hinger, G. & **Brinkmann, M.**, Bluhm, K., Sagner, A., Takner, H., Eisenträger, A., Braunbeck, T., Engwall, M., Tiehm, A., Hollert, H. (2011) Some heterocyclic aromatic compounds are Ah receptor agonists in the DR-CALUX assay and the EROD assay with RTL-W1 cells. *Environmental Science and Pollution Research* 18: 1297-1304.
12. Zielke, H., Seiler, T.-B., Niebergall, S., Leist, E., **Brinkmann, M.**, Spira, D., Streck, G., Brack, W., Feiler, U., Braunbeck, T., Hollert, H. (2011) The impact of extraction methodologies on the toxicity of sediments in the zebrafish (*Danio rerio*) embryo test. *Journal of Soils and Sediments* 11: 352-363.
11. Cofalla, C., Roger, S., Frings, R.M., Schüttrumpf, H., **Brinkmann, M.**, Hudjetz, S., Wölz, J., Hollert, H., Gerbersdorf, S.U., Hecker, M., Kammann, U., Lennartz, G., Schäffer, A. (2011) Eine Methode zur Bestimmung der Wechselwirkungen zwischen Sedimentdynamik und Ökotoxikologie. *Hydrologie und Wasserwirtschaft* 11: 227-230.
10. **Brinkmann, M.**, Hallare, A.V., Hudjetz, S., Keiter, S., Seiler, T.-B., Wölz, J., Gerbersdorf, S.U., Cofalla, C., Roger, S., Schüttrumpf, H., Hollert, H. (2010) Toxicity and risk assessment of fluvial sediments and suspended matter: a short overview of past and recent developments in sediment toxicity assessment. *Umweltwissenschaften und Schadstoffforschung* 22: 651-655.
9. **Brinkmann, M.**, Hudjetz, S., Cofalla, C., Roger, S., Kammann, U., Zhang, X., Wiseman, S., Giesy, J., Hecker, M., Schüttrumpf, H., Wölz, J., Hollert, H. (2010) A combined hydraulic and toxicological approach to assess re-suspended sediments during simulated flood events. Part I—multiple biomarkers in rainbow trout. *Journal of Soils and Sediments* 10: 1347–1361.
8. **Brinkmann, M.**, Brooks, A., Dabrunz, A., Gomez-Eyles, J.L., Van Hoecke, K., Kienle, C., Seiler, T.-B., Bundschuh, M. (2010) SETAC Europe 19th annual meeting, Gothenburg, Sweden: next step towards fulfilling students' needs - Meeting report by the Student Advisory Council (SAC) of SETAC Europe. *Environmental Science and Pollution Research* 17: 244-245.
7. Bundschuh, M., Zubrod, J.P., Galic, N., Dabrunz, A., Melato, M., Mieiro, C., Sdepanian, S., Westman, O., Liu, T., Kaiser, D., **Brinkmann, M.** (2010) 2nd SETAC Europe Young Environmental Scientists (YES) Meeting 2011 at RWTH Aachen University, 28 February till 2 March 2011. *Umweltwissenschaften und Schadstoffforschung* 22: 509–510.
6. Bundschuh, M., Dabrunz, A., Bollmohr, S., **Brinkmann, M.**, Caduff, M., Gomez-Eyles, J.L., Kinele, C., Melato, M., Patrick-Iwuanyanwu, K.-C.P., Van Hoecke, K., Seiler, T.-B., Brooks, A. (2009) 1st Young Environmental Scientists (YES) Meeting—New challenges in environmental sciences. A meeting report by the Student Advisory Council of SETAC Europe. *Environmental Science and Pollution Research* 16: 479-481.
5. **Brinkmann, M.**, Brooks, A., Dabrunz, A., Gomez-Eyles, J.L., Van Hoecke, K., Kienle, C., Seiler, T.-B., Bundschuh, M. (2009) SETAC Europe 19th annual meeting, Gothenburg, Sweden: next step towards fulfilling students' needs - Meeting report by the Student Advisory Council (SAC) of SETAC. *Umweltwissenschaften und Schadstoffforschung* 21: 412-413.
4. **Brinkmann, M.**, Dabrunz, A., Seiler, T.-B., Kienle, C., Bundschuh, M. (2009) 1st Young Environmental Scientists Meeting (YES-Meeting) - New Challenges in Environmental Sciences. *Umweltwissenschaften und Schadstoffforschung* 21: 113–114.

3. Schneider, A., **Brinkmann, M.**, Gerstner, A., Wölz, J., Heger, S., Weber, R., Engwall, M., Seiler, T.-B., Hollert, H. (2009) Assessment of dioxin-like toxicity in soils contaminated by a chloralkali process and a leblanc factory. *Organohalogen Compounds* 71: 2278-2282.
2. Lundström E., **Brinkmann, M.**, Ek, K., Hollert, H., Persson J.-O., Breitholtz M. (2009) Comparison of six different treatment technologies – population level responses in the harpacticoid copepod *Nitocra spinipes*. *Aquatic Toxicology* 96: 298-307.
1. Wölz, J., Cofalla, C., Hudjetz, S., Roger, S., **Brinkmann, M.**, Schmidt, B., Schäffer, A., Kammann, U., Lennartz, G., Hecker, M., Schüttrumpf, H. & Hollert, H. (2009) In search for the ecological and toxicological relevance of sediment re-mobilisation and transport during flood events. *Journal of Soils and Sediments* 9: 1-5.

### **13. ARTISTIC WORKS**

Nil

### **14. REFEREED CONFERENCE PUBLICATIONS**

Cofalla, C., Roger, S., **Brinkmann, M.**, Hudjetz, S., Hollert, H., Schüttrumpf, H., (2010). Floodsearch - Hydrotoxic Investigations of Contaminated Sediments in an Annular Flume, in: PIANC MMX papers collection: 32nd PIANC Congress, 125th Anniversary, Liverpool UK, 10-14 May 2010. PIANC, London, pp. 1 -14.

### **15. PRESENTATIONS**

#### **15.1 Invited presentations**

Fuchylo, U., **Brinkmann, M.**, Alharbi, H., Hecker, M. (2018) Does inflammation facilitate permeation of organic chemicals through gill epithelia? Canadian Ecotoxicity Workshop Meeting 2018, Playle Award Acceptance Lecture, Vancouver, Canada.

**---Appointment as Assistant Professor at U of S (August 2018)---**

**Brinkmann, M.**, Hecker, M., Bagatim, T., Codling, G., Hanson, S., Hogan, N., Hontela, A., Jones, P., Peng, H., Sarauer, B., Steeves, K., Wiseman, S., Giesy, J.P. (2018) A toolbox for aquatic impact assessment of municipal wastewater effluents (AIME). 13th International Congress on the Biology of Fish, Calgary, Canada.

Hollert, H., Buchinger, S., Reifferscheid, G., Hecker, M., Eichbaum, K., **Brinkmann, M.** (2018) Verbundprojekt dioRAMA - Erfassung Dioxin-ähnlicher Wirkung in Sediment und Biota zur Sedimentbewertung. Workshop Anwendung von Biotests in Sedimentmonitoring-Projekten. Symposium “Bioassays as Methods for Assessing Water and Sediment Quality”, Ecotox Centre, Dübendorf, Switzerland.

**Brinkmann, M.**, Alharbi, H., Wiseman, S., Sura, S., Morandi, G., Peng, H., Giesy, J.P., Jones, P.D., Hecker, M. (2017) *In vitro* assessment of pH-dependent uptake and toxicity of ionizable organic chemicals in fish. SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.

- Doering, J., LaLone, C., Ankley, G.T., Villeneuve, D., Schroeder, A., Lucio, M., Stoeck, S., **Brinkmann, M.**, Alcaraz, A.J., Currie, Z., Wiseman, S., Giesy, J.P., Hecker, M. (2017) Quantitative Adverse Outcome Pathways and their Utility in the Ecological Risk Assessment of Endangered Species. Special Session, SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.
- Brinkmann, M.**, Hecker, M. (2017) Advancing Chemical Risk Assessment Through Novel Approaches in Predictive Ecotoxicology. January 2017, US-EPA Midcontinent Ecology Division, Duluth, USA.
- Brinkmann, M.**, Eichbaum, K., Buchinger, S., Reifferscheid, G., Hollert, H. (2016) Effekte Dioxin-ähnlicher Schadstoffe in Fischen: *In vitro-in vivo* und interspezies-Extrapolation mithilfe von physiologisch basierten toxikokinetischen Modellen. Colloquium „Ergebnisse und Schlussfolgerungen aus Forschungsprojekten über schadstoffbelastete Feinsedimente“, German Federal Institute of Hydrology, Koblenz, Germany, 02.-03. March 2016.
- Brinkmann, M.** & Hollert, H. (2015) German experiences on ecological remediation of polluted rivers. Sino-German Conference on Water Treatment Technology and Management, 21.-22. October 2015, Hangzhou, China.
- Brinkmann, M.**, Schiwy, S., Salowsky, H., Sagner, A., Tiehm, A., Hollert, H. (2013) Akute und Mechanismus-spezifische Toxizität von NSO-Heterozyklen. Meeting of the workgroup ‘Analysis of NSO-heterocyclic compounds in water’, German Institute of Standardization (DIN), 05. November 2013, University Lüneburg.
- Hollert, H., Maletz, S., **Brinkmann, M.**, Hecker, M. (2013) Experiences and recommendations for a sensitive *in vitro* assay for the assessment of estrogen receptor-binding substances in surface water. Workshop on Bioanalytical options for the monitoring of steroid estrogens in surface water, 27th February 2013, Federal Institute of Hydrology Koblenz.
- Stoffels, S., **Brinkmann, M.**, Hudjetz, S., Freese, M., Pohlmann, J.-D., Kamann, U., Hanel, R., Hollert, H. (2012) Biomarker-basierte Untersuchung der Schadstoffbelastung des europäischen Aals in deutschen Flüssen. Scientific framework of the DCF for the European eel, 15.-16.10.2012, Thünen Institute for Fisheries Ecology, Hamburg.
- Brinkmann, M.**, Hudjetz, S., Kuckelkorn, J., Hennig, M., Cofalla, C., Roger, S., Kamann, U., Schüttrumpf, H., Hollert, H. (2012) Uptake and effects of particle-bound polycyclic aromatic hydrocarbons (PAH) from sediment suspensions in rainbow trout (*Oncorhynchus mykiss*, Walbaum). SETAC German Language Branch Annual Meeting 2012, Leipzig, Germany.
- Hollert, H., **Brinkmann, M.**, Hudjetz, S., Eichbaum, K., Kuckelkorn, J., Cofalla, C., Roger, S., Kamann, U., Giesy, J., Schäffer, A., Hecker, M., Lennartz, G., Haag, I., Gerbersdorf, S., Westrich, B., Wölz, J., Schüttrumpf, H. (2012) Hochwasser – unterschätztes Risiko für die Erreichung des guten ökologischen Zustandes nach EU-Wasserrahmenrichtlinie. 42. Internationales Wasserbau Symposium Aachen (IWASA), January 12-13, Aachen, Germany.
- Hollert, H., **Brinkmann M.**, Hudjetz S., Eichbaum K., Kuckelkorn J., Cofalla C., Roger S., Kamann U., Schäffer A., Hecker M., Lennartz G., Schüttrumpf H., Wölz J. (2011) Ecotoxicological impact of re-mobilized sediments and flood events for look regulated rivers and wetlands. Second international workshop on ecofriendly use of wetlands in the ‘Three Gorges Reservoir’, October 21, Chongqing, China.
- Brinkmann, M.**, Peddinghaus, S., Sagner, A., Tiehm, A., Hollert, H. (2011) Genotoxicity, embryotoxicity and dioxin-like activity of selected heterocyclic aromatic hydrocarbons typically found at taroil-contaminated sites. ISPAC 23, September 2011, Münster, Germany.

## 15.2 Contributed presentations (oral only; students supervised or on committee underlined)

- Brinkmann, M., Freese, M., Pohlmann, J.D., Doering, J., Damerau, M., Marohn, L., Hanel, R., Hecker, M. (2019) The missing piece in the eel puzzle? New evidence indicates dioxin-like compounds might be responsible for recruitment failure in European eels. SETAC PNC Annual Meeting 2019, Lethbridge, Canada.
- Green, D., Janz, D., Liber, K., Hogan, N., Alcaraz, A., Lane, T., Raes, K., Bluhm, K., **Brinkmann, M.**, Crump, D., Basu, N., and Hecker, M. (2019) Predicting selenomethionine toxicity in the fathead minnow (*Pimephales promelas*) using semi-quantitative modeling. SETAC PNC Annual Meeting 2019, Lethbridge, Canada.
- Grimard, C., Mangold-Döring, A., Schmitz, M., Alharbi, H., Jones, P., Giesy, J., **Brinkmann, M.**, Hecker, M. (2019) *In vitro-in vivo* and cross-life stage extrapolation of uptake and biotransformation of benzo[a]pyrene in the fathead minnow. SETAC PNC Annual Meeting 2019, Lethbridge, Canada.
- Fuchylo, U., **Brinkmann, M.**, Alharbi, H., Hecker, M. (2019) Inflammation of gill epithelia in fish causes increased permeation of polar organic chemicals via disruption of tight junctions. SETAC PNC Annual Meeting 2019, Lethbridge, Canada.
- Müller, A., Markert, N., Leser, K., Crawford, S.E., Schüttrumpf, H., Segner, H., **Brinkmann, M.**, Hollert, H. (2019) Toxic floods - Impacts of remobilized endocrine disruptors from sediments in rainbow trout (*Oncorhynchus mykiss*). SETAC Europe Annual Meeting 2019, Helsinki, Finland.
- Mangold-Döring, A., Grimard, C., Green, D., Hogan, N., Weber, L., Hollert, H., Hecker, M., **Brinkmann, M.** (2019) A Novel Multi-Species Physiologically-Based Toxicokinetic Modelling Approach in Support of Environmental Risk Assessment of Chemicals. SETAC Young Environmental Scientists Meeting, Ghent, Belgium.
- Schmitz, M., Müller, A.K., Crawford, S., Ganal, C., **Brinkmann, M.**, Schüttrumpf, H., Hollert, H. (2019) Impact of endocrine disruptors from sediment during a simulated flood like event on rainbow trout (*Oncorhynchus mykiss*). SETAC Young Environmental Scientists Meeting, Ghent, Belgium.
- Brinkmann, M.**, Mangold-Döring, A., Grimard, C., Green, D., Hogan, N., Weber, L., Hollert, H., Hecker, M. (2018) A Novel Multi-Species Physiology-Based Toxicokinetic Modelling Approach in Support of Ecological Risk Assessment. AGU Fall Meeting 2018, Washington D.C., USA.
- Green, D., Janz, D., Liber, K., Hogan, N., Alcaraz, A.J., Lane, T., Raes, K., Bluhm, K., **Brinkmann, M.**, Hecker, M. (2018) Selenomethionine induced molecular toxicity in the fathead minnow (*Pimephales promelas*). SETAC North America Annual Meeting, Sacramento, USA.
- Baldwin, N., Alcaraz, A.J., **Brinkmann, M.**, Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2018) Linking transcriptomic responses to apical outcomes of chronic chlорpyrifos exposure in *Xenopus laevis*. SETAC North America Annual Meeting, Sacramento, USA.

---Appointment as Assistant Professor at U of S (August 2018)---

- Nuesser, L., Steffens, S., Seiler, T.-B., Salomons, E., Schumann, M., Doering, R., Bruell, C., Schuettrumpf, H., Ostfeld, A., Hollert, H., **Brinkmann, M.** (2018) A versatile and low-cost open source pipetting robot for automation of toxicological and ecotoxicological bioassays. SETAC Europe Annual Meeting 2018, Rome, Italy.
- Gill, N., Hecker, M., **Brinkmann, M.** (2017) Towards improved methods for determination of aldehyde oxidase activity in fish. SETAC North America Prairie Northern Chapter Annual Meeting 2017, Saskatoon.
- Brinkmann, M.**, Hecker, M. (2017) Advancing Chemical Risk Assessment Through Novel Approaches in Predictive Ecotoxicology. Toxicology Centre 990 Seminar Series, January 6, University of Saskatchewan.
- Brinkmann, M.**, Schlechtriem, C., Reininghaus, M., Eichbaum, K., Buchinger, S., Reifferscheid, G., Hollert, H., Preuss, T.G. (2016) Cross-species extrapolation of uptake and disposition of neutral organic chemicals in fish using a multispecies physiologically-based toxicokinetic model. SETAC North America Annual Meeting 2016, Orlando, FL, USA.
- Brinkmann, M.**, Eichbaum, K., Buchinger, S., Reifferscheid, G., Hollert, H. (2015) Ergebnisse des Projektes DioRAMA – Erfassung Dioxin-ähnlicher Wirkung in Sediment und Biota zur Sedimentbewertung. SETAC GLB Annual Meeting 2015, Zürich.
- Koglin, S., **Brinkmann, M.**, Eisner, B., Wiseman, S., Hecker, M., Eichbaum, K., Thalmann, B., Buchinger, S., Reifferscheid, G. Hollert, H. (2015) Characterization of transcriptional responses to dioxins and dioxin-like contaminants in roach (*Rutilus rutilus*) using whole transcriptome analysis. SETAC GLB Annual Meeting 2015, Zürich.
- Müller, A., Schneider, A.-L., Kraßnitzer, S., Tiehm, A., **Brinkmann, M.**, Lehmann, G., Deutschmann, B., Hollert H. (2014) Identifikation von prioritären NSO-Heterozyklen auf Basis von neuen Felddaten und Toxizitäts-Tests. In: Symposium Strategien zur Boden- und Grundwassersanierung, DECHEMA, Darmstadt, 24.-25. November 2014.
- Brinkmann, M.**, Eichbaum, K., Buchinger, S., Reifferscheid, G., Bui, T., Schäffer, A., Hollert, H., Preuss, T.G. (2014) Physiologically based toxicokinetic models for *in vitro-in vivo* extrapolation of receptor-mediated effects in rainbow trout. SETAC North America Annual Meeting 2014, Vancouver, Canada.
- Brinkmann, M.**, Eichbaum, K., Buchinger, S., Reifferscheid, G., Bui, T., Schäffer, A., Hollert, H., Preuss, T.G. (2014) Physiologisch-basierte toxikokinetische Modelle zur *In vitro-in vivo*-Extrapolation Rezeptor-vermittelter Effekte in Fischen. SETAC GLB Annual Meeting 2014, Gießen.
- Eichbaum, K., **Brinkmann, M.**, Buchinger, S., Reifferscheid, G., Nüsser, L., Hollert, H. (2014) Bioanalytische Untersuchung der Aufnahme sedimentbürtiger, dioxin-ähnlicher Substanzen in Rotaugen (*Rutilus rutilus*). SETAC GLB Annual Meeting 2014, Gießen.
- Brinkmann, M.**, Eichbaum, K., Buchinger, S., Reifferscheid, G., Bui, T., Schäffer, A., Hollert, H., Preuss, T.G. (2014) Physiologically based toxicokinetic models for *in vitro-in vivo* extrapolation of receptor-mediated effects in rainbow trout. 24th SETAC Europe Annual Meeting 2014, Basel, Switzerland.
- Freese, M., Pohlmann, J.-D., Kamann, U., Sühring, R., Stoffels, S., **Brinkmann, M.**, Wolschke, H., Möller, A., Ebinghaus, R., Hollert, H., Hanel, R. (2012) Schadstoffmonitoring zur Habitatbewertung des europäischen Aals – Ein wissenschaftliches Begleitprogramm zum Europäischen Datensammelprogramm (DCF). SETAC German Language Branch Annual Meeting 2012, Leipzig, Germany.

- Brinkmann, M.** Hudjetz, S., Kuckelkorn, J., Hennig, M., Cofalla, C., Roger, S., Kammann, U., Hecker, M., Giesy, J., Schüttrumpf, H., Schäffer, A., Hollert, H. (2012) Can flood events affect rainbow trout? The biomarker-cascade after exposure to PAHs in sediment suspensions. 22nd SETAC Europe Annual Meeting 2012, Berlin, Germany.
- Eichbaum, K., Seiler, T.-B., Keiter, S., Winkens, K., **Brinkmann, M.**, Umlauf, G., Stachel, B., Hollert, H. (2012) Dioxin-like activity of sediment samples from the Elbe River and soil samples from the Elbe associated flood area. 22nd SETAC Europe Annual Meeting 2012, Berlin, Germany.
- Brinkmann, M.**, Hudjetz, S., Kuckelkorn, J., Hennig, M., Cofalla, C., Roger, S., Kammann, U., Schüttrumpf, H., Henner, H. (2011) Aufnahme und Effekte von partikelgebundenen polyzyklischen aromatischen Kohlenwasserstoffen (PAK) von dotierten Sedimentsuspensionen in Regenbogenforellen. SETAC German Language Branch Annual Meeting 2011, Landau, Germany.
- Cofalla, C., Roger, S., **Brinkmann, M.**, Hudjetz, S., Hollert, H., Schüttrumpf, H., (2010). Floodsearch - Hydrotoxische Untersuchungen schadstoffbehafteter Sedimente im Kreisgerinne, in: XXXII. Internationaler Schiffahrtskongress: Liverpool (Großbritannien), 10.-14.Mai 2010; Deutsche Beiträge, Bonn 2010.- Bonn: Bundesministerium f. Verkehr, Bau u. Stadtentwicklung, 2010. Bundesministerium f. Verkehr, Bau u. Stadtentwicklung, Bonn, pp. 138 -149.
- Cofalla, C., Hudjetz, S., Roger, S., **Brinkmann, M.**, Eisenbeis, P., Hollert, H., Schüttrumpf, H. (2011) Remobilization of particle-bound contaminants from re-suspended sediments and their impact on aquatic organisms. International SedNet Conference, April 2011, Venice Italy.
- Heger, S., Bluhm, K., **Brinkmann, M.**, Winkens, K., Schneider, A., Wollenweber, M., Maletz, S., Wölz, J. Agler, M., Angenent, L., Seiler, T.-B., Hollert, H. (2011) What's up inside the reactor - biotests for risk assessment of biofuel fermentation. SETAC Europe YES-Meeting 2011, Aachen, Germany.
- Brinkmann, M.** Hudjetz, S., Cofalla, C., Roger, S., Kammann, U., Giesy, J., Hecker, M., Schüttrumpf, H., Wölz, J., Hollert, H. (2010) FLOODSEARCH Part B: A multiple biomarker approach to assess the toxicity of resuspended sediments during simulated flood events. SETAC Europe Annual Meeting 2010, Seville, Spain.
- Brinkmann, M.**, Hudjetz, S., Wölz, J., Cofalla, C., Roger, S., Schüttrumpf, H., Hollert, H. (2009) Risikobewertung und Toxizität von Sedimenten und Schwebstoffen in Fließgewässern. Seminarreihe 'Regionale Wasserwirtschaft in Theorie und Praxis' 2009, Trier, Germany.
- Cofalla, C., **Brinkmann, M.**, Roger, S., Hudjetz, S., Kammann, U., Zhang, X., Giesy, J., Hecker, M., Wölz, J., Hollert, H., Schüttrumpf, H. (2010) Hydrotoxische Untersuchungen schadstoffbehafteter Sedimente im Kreisgerinne, Internationales Wasserbau-Symposium Aachen, Aachen
- Brinkmann, M.**, Hudjetz, S., Cofalla, C., Roger, S., Kammann, U., Giesy, J., Hecker, M., Schüttrumpf, H., Wölz, J., Hollert, H. (2009) Searching for the (eco)toxicological relevance of sediment remobilisation and transport during flood events in rivers. Part B: CYP1A1, micronucleus test, gene expression analysis and PAH metabolites in bile. SETAC German Language Branch Annual Meeting 2009, Weihenstephan, Germany.

### 15.3 Poster presentations

- Prajapati, S., Brinkmann, M., Beal, M. (2019) Qualitative and quantitative analysis of microplastic contamination in the treatment process and in effluents of the City of Saskatoon Wastewater Treatment Plant. SETAC PNC Annual Meeting 2019, Lethbridge, Canada.
- MacPherson, S., DeBofsky, A., Brinkmann, M. (2019) Simultaneous in vitro assessment of the bioavailability and hepatic CYP1A induction of dioxin-like chemicals in rainbow trout. SETAC PNC Annual Meeting 2019, Lethbridge, Canada.
- Brinkmann, M., Mangold-Döring, A., Grimard, C., Hollert, H., Hecker, M.** (2019) A Novel Multi-Species Physiology-Based Toxicokinetic Modelling Approach in Support of Ecological Risk Assessment. Global Water Futures 2<sup>nd</sup> Annual Open Science Meeting, Saskatoon Canada.
- Prajapati, S., Beal, M., Brinkmann, M. (2019) Qualitative and quantitative analysis of microplastic contamination in the treatment process and in effluents of the City of Saskatoon Wastewater Treatment Plant. Global Water Futures 2<sup>nd</sup> Annual Open Science Meeting, Saskatoon Canada.
- Fuchylo, U., Alharbi, H., Jones, P., Hecker, M., Brinkmann, M. (2019) Inflammation of gill epithelia in fish causes increased permeation of polar organic chemicals *via* disruption of tight junctions. Global Water Futures 2<sup>nd</sup> Annual Open Science Meeting, Saskatoon Canada.
- Grimard, C., Mangold-Döring, A., Schmitz, M., Hecker, M., Brinkmann, M. (2019) *In vitro-in vivo* and cross-life stage extrapolation of uptake and biotransformation of benzo[a]pyrene in the fathead minnow. Global Water Futures 2<sup>nd</sup> Annual Open Science Meeting, Saskatoon Canada.
- Green, D., Janz, D., Liber, K., **Brinkmann, M.**, Hecker, M. (2019) Cross-species compartmental modeling of selenium in fishes exposed to selenomethionine *via* ingestion. Global Water Futures 2<sup>nd</sup> Annual Open Science Meeting, Saskatoon Canada.
- Alcaraz, A., Green, D., Bluhm, K., Potesil, D., Park, B., Burbridge, C., Mikulášek, K., Lane, T., **Brinkmann, M.**, Zdrahal, Z., Schneider, D., Crump, D., Basu, N., Hogan, N., Hecker, M. (2019) Trans-omics investigations to predict adverse outcomes of 17 $\alpha$ -ethynodiol in early life stage fathead minnow (*Pimephales promelas*). SETAC Europe Annual Meeting 2019, Helsinki, Finland.
- Green, D., Janz, D., Liber, K., Hogan, N., Alcaraz, A.J., Lane, T., Bluhm, K., **Brinkmann, M.**, Hecker, M. (2018) Predicting adverse outcomes of selenomethionine exposure to embryonic white sturgeon (*Acipenser transmontanus*) using *in-ovo* microinjection. SETAC North America Annual Meeting, Sacramento, USA.
- Green, D., Janz, D., Liber, K., **Brinkmann, M.**, Hecker, M. (2018) Cross-species compartmental modeling of selenium in fishes exposed to selenomethionine *via* ingestion. SETAC North America Annual Meeting, Sacramento, USA.
- Brinkmann, M., Freese, M., Pohlmann, J.-D., Doering, J., Damerau, M., Marohn, L., Hanel, R., Hecker, M.** (2018) A combined PBTK and qAOP-modeling approach to assess the impact of DLC-induced embryotoxicity on recruitment failure in European eels. SETAC North America Annual Meeting, Sacramento, USA.
- Colville, C., Malala Irugal Bandaralage, S., Fuchylo, U., Alcaraz, A.J., Grimard, C., Wood, S., Brinkmann, M., Masse, A., Crump, D., Basu, N., Hogan, N., Hecker, M. (2018) Characterizing changes in molecular toxicity pathways to predict adverse outcomes of fluoxetine in adult fathead minnows. SETAC North America Annual Meeting, Sacramento, USA.

- Malala Irugal Bandaralage, S., Colville, C., Grimard, G., Alcaraz, A.J., **Brinkmann, M.**, Masse, A. Crump, D., Basu, N., Hogan, N., Hecker, M. (2018) Characterizing changes in molecular toxicity pathways to Predict adverse outcomes of 17 $\beta$ -trenbolone in adult fathead minnows (*Pimephales promelas*). SETAC North America Annual Meeting, Sacramento, USA.
- Grimard, C., Mangold-Döring, A., Schmitz, M., Alharbi, H., Jones, P., Giesy, J., **Brinkmann, M.**, Hecker, M. (2018) *In vitro-in vivo* and cross-life stage extrapolation of uptake and biotransformation of benzo[*a*]pyrene in the fathead minnow. SETAC North America Annual Meeting, Sacramento, USA.
- Mangold-Döring, A., Grimard, C., Green, D., Hogan, N., Weber, L., Hollert, H., Hecker, M., **Brinkmann, M.** (2018) Multi-Species Approach in Physiologically Based Toxicokinetic (PBTK) Modelling in Support of Ecological Risk Assessment. SETAC North America Annual Meeting, Sacramento, USA.
- Fuchylo, U., **Brinkmann, M.**, Alharbi, H., Hecker, M. (2018) Inflammation of gill epithelia in fish causes increased permeation of polar organic chemicals *via* disruption of tight junctions. SETAC North America Annual Meeting, Sacramento, USA.
- Brinkmann, M.**, Alharbi, H., Wiseman, S., Sura, S., Morandi, G., Peng, H., Giesy, J., Jones, P., Hecker, M. (2018) *In vitro* assessment of pH-dependent uptake and toxicity of ionizable organic chemicals in fish SETAC North America Annual Meeting, Sacramento, USA.
- Doering, J., Schroeder, A., **Brinkmann, M.**, Currie, Z., Hecker, M. (2018) A quantitative AOP for activation of the Ah Receptor leading to early life stage mortality in amphibians and reptiles. SETAC North America Annual Meeting, Sacramento, USA.
- Maloney, E., Morrissey, C., **Brinkmann, M.**, Peru, K., Headley, J., Liber, K. (2018) Composition and function of nicotinic acetylcholine receptors in *Chironomus dilutus* exposed to neonicotinoid mixtures. SETAC North America Annual Meeting, Sacramento, USA.
- Baldwin, N., **Brinkmann, M.**, Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2018) Comparing apical responses and molecular toxicity pathways in two amphibian species following chronic exposure to ethinyl estradiol and chlorpyrifos. SETAC North America Annual Meeting, Sacramento, USA.
- Green, D., Janz, D., Liber, K., Hogan, N., Alcaraz, A.J., Lane, T., Raes, K., Bluhm, K., **Brinkmann, M.**, Hecker, M. (2018) Selenomethionine induced molecular toxicity in the fathead minnow (*Pimephales promelas*). Canadian Ecotoxicity Workshop Meeting 2018, Vancouver, Canada.
- Green, D., Janz, D., Liber, K., Hogan, N., Alcaraz, A.J., Lane, T., Bluhm, K., **Brinkmann, M.**, Hecker, M. (2018) Predicting adverse outcomes of selenomethionine exposure to embryonic white sturgeon (*Acipenser transmontanus*) using *in-ovo* microinjection. Canadian Ecotoxicity Workshop Meeting 2018, Vancouver, Canada.
- Hogan, N., Baldwin, N., Alcaraz, A.J., **Brinkmann, M.**, Masse, A., Crump, D., Basu, N., Hecker, M. (2018) Relating Molecular Toxicity Pathways to Apical Outcomes of Chronic Ethinyl Estradiol Exposure in *Xenopus Laevis*. Canadian Ecotoxicity Workshop Meeting 2018, Vancouver, Canada.
- Fuchylo, U., Bandaralage, S., Colville, C., Grimard, C., Alcaraz, A.J., **Brinkmann, M.**, Masse, A., Crump, D., Basu, N., Hogan, N., Hecker, M. (2018) Effects of 17 $\beta$ -trenbolone on adult fathead minnow (*Pimephales promelas*). Canadian Ecotoxicity Workshop Meeting 2018, Vancouver, Canada.

- Bluhm, K., Alcaraz, A., Green, D., Lane, T., **Brinkmann, M.**, Taghavimehr, J., Masse, A., Baldwin, N., Crump, D., Basu, N., Hogan, N., Hecker, M. (2018) Identification of toxicity pathways predicting adverse outcomes of chlorpyrifos in fathead minnows. SETAC Europe Annual Meeting 2018, Rome, Italy.
- Brinkmann, M.**, Freese, M., Pohlmann, J.D., Doering, J., Damerau, M., Marohn, L., Hanel, R., Hecker, M. (2018) A combined PBTK and qAOP-modeling approach to assess the impact of dioxin-like compound (DLC)-induced embryotoxicity on recruitment failure in European eels. SETAC Europe Annual Meeting 2018, Rome, Italy.
- Schmitz, M.T., **Brinkmann, M.**, Apenova, N., Grimard, C., Alcaraz, A., Green, D., Bluhm, K., Lane, T., Baldwin, N., Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hollert, H., Hogan, N., Hecker, M. (2018) Effects of water-borne benzo[a]pyrene on early-life stages of the fathead minnow (*Pimephales promelas*). SETAC Europe Annual Meeting 2018, Rome, Italy.
- Ouellet, J.D., **Brinkmann, M.**, Gembé, C., Buchinger, S., Reifferscheid, G., Hollert, H. (2018) Using Correlations of Biological Toxicity Equivalent Quotients and Toxicity Equivalent Quotients to Derive Threshold Values for Dioxin-Like Compounds in Sediment. SETAC Europe Annual Meeting 2018, Rome, Italy.
- Schroeder, A., Doering, J.D., **Brinkmann, M.**, Lucio, M., Stoeck, S., Currie, Z., Hecker, M. (2018) A quantitative AOP for activation of the aryl hydrocarbon receptor leading to early life stage mortality in amphibians and reptiles. SETAC Europe Annual Meeting 2018, Rome, Italy.
- Brinkmann, M.**, Freese, M., Pohlmann, J.D., Doering, J., Damerau, M., Marohn, L., Hanel, R., Hecker, M. (2017). A combined PBTK and qAOP-modeling approach to assess the impact of DLC-induced embryotoxicity on recruitment failure in endangered European eels. SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.
- Doering, J., **Brinkmann, M.**, Alcaraz, A.J., Giesy, J.P., Wiseman, S., Hecker, M. (2017) A Quantitative Adverse Outcome Pathway for Activation of the Aryl Hydrocarbon Receptor Leading to Early Life Stage Mortality. SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.
- Green, D., Janz, D., Liber, K., Hogan, N., Alcaraz, A.J., Lane, T., Bluhm, K., **Brinkmann, M.**, Hecker, M. (2017) Adverse outcome pathways for selenomethionine exposure in four commercially and culturally relevant Canadian fish species. SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.
- Bluhm, K., Alcaraz, A.J., Green, D., Lane, T., **Brinkmann, M.**, Taghavimehr, J., Masse, A., Baldwin, N., Crump, D., Basu, N., Hogan, N., Hecker, M. (2017) Identification of toxicity pathways that can be used to predict adverse outcomes of chlorpyrifos in fathead minnows. SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.
- Baldwin, N., Alcaraz, A.J., Green, D., Bluhm, K., Lane, T., **Brinkmann, M.**, Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2017) Characterizing early changes in molecular toxicity pathways to predict adverse outcomes of ethinyl estradiol and chlorpyrifos in amphibians. SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.
- Brinkmann, M.**, Gill, N., Alcaraz, A.J., Green, D., Baldwin, N., Bluhm, K., Lane, T., Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2017) Effects of water-borne benzo[a]pyrene on early-life stages of the fathead minnow (*Pimephales promelas*). SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.

- Alcaraz, A.J., **Brinkmann, M.**, Green, D., Baldwin, N., Bluhm, K., Lane, T., Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2017) Toxicogenomic characterization of the effects of EE2 and FLX in fathead minnows: Identifying signature toxicity pathways to predict adverse outcomes. SETAC North America Annual Meeting 2017, Minneapolis, MN, USA.
- Bluhm, K., Alcaraz, A.J., Green, D., Lane, T., **Brinkmann, M.**, Taghavimehr, J., Masse, A., Baldwin, N., Crump, D., Basu, N., Hogan, N., Hecker, M. (2017) Identification of toxicity pathways that can be used to predict adverse outcomes of chlorpyrifos in fathead minnows. Canadian Ecotoxicity Workshop 2017, Guelph, ON, Canada.
- Baldwin, N., Alcaraz, A.J., Green, D., Bluhm, K., Lane, T., **Brinkmann, M.**, Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2017) Characterizing early changes in molecular toxicity pathways to predict adverse outcomes of ethinyl estradiol and chlorpyrifos in amphibians. Canadian Ecotoxicity Workshop 2017, Guelph, ON, Canada.
- Alcaraz, A.J., **Brinkmann, M.**, Green, D., Baldwin, N., Bluhm, K., Lane, T., Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2017) Toxicogenomic characterization of the effects of EE2 and FLX in fathead minnows: Identifying signature toxicity pathways to predict adverse outcomes. Canadian Ecotoxicity Workshop 2017, Guelph, ON, Canada.
- Brinkmann, M.**, Gill, N., Alcaraz, A.J., Green, D., Baldwin, N., Bluhm, K., Lane, T., Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hecker, M., Hogan, N. (2017) Effects of water-borne benzo[a]pyrene on early-life stages of the fathead minnow (*Pimephales promelas*). Canadian Ecotoxicity Workshop 2017, Guelph, ON, Canada.
- Brinkmann, M.**, Hecker, M. (2017) Novel approaches in toxicokinetic modeling to meet the challenges of chemical risk assessment in the 21st century. Canadian Ecotoxicity Workshop 2017, Guelph, ON, Canada.
- Brinkmann, M.**, Alharbi, H., Wiseman, S., Sura, S., Morandi, G., Peng, H., Giesy, J.P., Jones, P.D., Hecker, M. (2017) *In vitro* assessment of pH-dependent uptake and toxicity of ionizable organic chemicals in fish. Canadian Ecotoxicity Workshop 2017, Guelph, ON, Canada.
- Green, D., Janz, D., Liber, K., Hogan, N., Alcaraz, A.J., Lane, T., Bluhm, K., **Brinkmann, M.**, Hecker, M. (2017) Adverse outcome pathways for selenomethionine exposure in four commercially and culturally relevant Canadian fish species. Canadian Ecotoxicity Workshop 2017, Guelph, ON, Canada.
- Brinkmann, M.**, Hecker, M. (2017) Novel approaches in toxicokinetic modeling to meet the challenges of chemical risk assessment in the 21st century. SETAC North America Prairie Northern Chapter Annual Meeting 2017, Saskatoon, Canada.
- Alcaraz, A.J., Green, D., Bluhm, K., Lane, T., **Brinkmann, M.**, Baldwin, N., Taghavimehr, J., Masse, A., Crump, D., Basu, N., Hogan, N., Hecker, M. (2017) Toxicogenomic characterization of EE2 and fluoxetine effects in fathead minnows: identifying signature toxicity pathways to predict adverse outcomes. SETAC North America Prairie Northern Chapter Annual Meeting 2017, Saskatoon, Canada.
- Müller, A.-K., **Brinkmann, M.**, Cofalla, C., Schüttrumpf, H., Hollert, H. (2016) Floodhydrotox – an interdisciplinary approach to assess the endocrine disrupting potential of sediments during flood events. SETAC GLB Annual Meeting 2016, Tübingen.

- Weichert, F., Brinkmann, M., Di Paolo, C., Floeter, C., Hollert, H., Meza, A., Kammann, U. (2016) Erfassung neurotoxischer Effekte in der Embryonalentwicklung von *Danio rerio* – Entwicklung und Validierung einer neuen Testmethode. SETAC GLB Annual Meeting 2016, Tübingen.
- Brinkmann, M.**, Schlechtriem, C., Reininghaus, M., Eichbaum, K., Buchinger, S., Reifferscheid, G., Hollert, H., Preuss, T.G. (2016) Cross-species extrapolation of uptake and disposition of neutral organic chemicals in fish using a multispecies physiologically-based toxicokinetic model. SETAC Europe Annual Meeting 2016, Nantes, France.
- Brinkmann, M.**, Eichbaum, K., Buchinger, S., Reifferscheid, G., Bui, T., Schäffer, A., Hollert, H., Preuss, T.G. (2015) Physiologisch basierte toxikokinetische Modelle zur *In vitro-in vivo*-Extrapolation Rezeptor-vermittelter Effekte in Fischen. SETAC GLB Annual Meeting 2015, Zürich.
- Brinkmann, M.**, Eichbaum, K., Reininghaus, M., Koglin, S., Kammann, U., Baumann, L., Segner, H., Zennegg, M., Buchinger, S., Reifferscheid, G., Hollert, H. (2015) Zeit- und Konzentrationsabhängigkeit von Verfügbarkeit und Effekten dioxinähnlicher Schadstoffe in Regenbogenforellen (*Oncorhynchus mykiss*) während der Resuspension von Sedimenten. SETAC GLB Annual Meeting 2015, Zürich.
- Nüßer, L., Steffens, S., Döring, R., **Brinkmann, M.**, Seiler, T.-B., Cofalla, C., Salomons, E., Oliker, N., Schüttrumpf, H., Ostfeld, A., Hollert, H. (2015) Combined ecotoxicological and hydrological methods for online contamination event detection in water distribution systems. SETAC Europe Annual Meeting 2015, Barcelona, Spain.
- Steffens, S., Nüßer, L., Döring, R., **Brinkmann, M.**, Seiler, T.-B., Cofalla, C., Salomons, E., Oliker, N., Schüttrumpf, H., Ostfeld, A., Hollert, H. (2015) Using a low cost pipetting robot to investigate the influence of the medium exchange frequency on the toxicity of substances in the fish embryo toxicity assay (FET). SETAC Europe Annual Meeting 2015, Barcelona, Spain.
- Brinkmann, M.**, Maletz, S., Krauss, M., Bluhm, K., Schiwy, S., Kuckelkorn, J., Tiehm, A., Brack, W., Hollert, H. (2014) Heterocyclic aromatic hydrocarbons show estrogenic activity upon metabolism in the ER CALUX assay. SETAC North America Annual Meeting 2014, Vancouver, Canada.
- Brinkmann, M.**, Maletz, S., Krauss, M., Bluhm, K., Schiwy, S., Kuckelkorn, J., Tiehm, A., Brack, W., Hollert, H. (2014) Estogene Effekte von NSO-heterozyklischen Aromaten im ER CALUX mit der humanen Mammakarzinomzelllinie T47Dluc. SETAC GLB Annual Meeting 2014, Gießen.
- Zimmer, M., Eichbaum, K., **Brinkmann, M.**, Buchinger, S., Reifferscheid, G., Hollert, H. (2014) Desorption und Bioverfügbarkeit von polzyklischen aromatischen Kohlenwasserstoffen aus natürlichen Sedimenten. SETAC GLB Annual Meeting 2014, Gießen.
- Müller, A.K., Brinkmann, M., Keiter, S., Kidd, K., Hollert, H. (2014) Genotoxicity of Mercury in Yellow Perch (*Perca flavescens*) from a Biological Hotspot in Nova Scotia, Canada. SETAC Europe Annual Meeting 2014, Basel, Switzerland.
- Zimmer, M., Eichbaum, K., **Brinkmann, M.**, Hollert, H., Reifferscheid, G., Buchinger, S. (2014) Desorption and bioavailability of polychlorinated biphenyls, polycyclic aromatic hydrocarbons and heterocyclic compounds present in natural sediments. SETAC Europe Annual Meeting 2014, Basel, Switzerland.

- Schulze-Sylvester, M., Heimann, W., Maletz, S., Seiler, T.-B., **Brinkmann, M.**, Schulz, R., Hollert, H. (2014) Ecotoxicological effects of contaminated sediments on fish: Are current risk assessment protocols sufficient? SETAC Europe Annual Meeting 2014, Basel, Switzerland.
- Eichbaum, K., **Brinkmann, M.**, Buchinger, S., Hecker, M., Engwall, M., van Bavel, B., Reifferschied, G., Hollert, H. (2013) The dioRAMA joint project – Methods for the detection of dioxin-like chemicals in risk assessment and management of contaminated sediments. SETAC Europe Annual Meeting 2013, Glasgow, Scotland.
- Brinkmann, M.**, Schiwy, S., Bluhm, K., Hinger, G., Sagner, A., Tiehm, A., Eisenträger, A., Hollert, H. (2013) Mechanism-specific effects of selected heterocyclic PAHs typically found at taroil-contaminated sites. SETAC Europe Annual Meeting 2013, Glasgow, Scotland.
- Brinkmann, M.**, Stoffels, S., Freese, M., Pohlmann, J.-D., Kammann, U., Hanel, R., Hollert, H. (2013) Biomarker investigation on the contaminant exposure of European Eel (*Anguilla anguilla*) in German rivers. SETAC Europe Annual Meeting 2013, Glasgow, Scotland.
- Brinkmann, M.**, Hudjetz, S., Herrmann, H., Kamman, U., Cofalla, C., Lorke, S., Schäffer, A., Hecker, M., Schüttrumpf, H., Hollert, H. (2013) Do flood events matter? Biomarker response of rainbow trout following exposure to re-suspended sediments in an annular flume. SETAC Europe Annual Meeting 2013, Glasgow, Scotland.
- Brinkmann, M.**, Hudjetz, S., Hennig, M.P., Cofalla, C., Lorke, S., Kammann, U., Hecker, M., Giesy, J.P., Schüttrumpf, H., Schäffer, A., Hollert, H. (2013) Can flood events affect rainbow trout? The biomarker-cascade after exposure to PAHs in sediment suspensions. SETAC Europe Annual Meeting 2013, Glasgow, Scotland.
- Stoffels, S., **Brinkmann, M.**, Freese, M., Pohlmann, J.-D., Kammann, U., Hanel, R., Hollert, H. (2012) Untersuchung der Schadstoffexposition des europäischen Aals in deutschen Flüssen mit Biomarkern. SETAC German Language Branch Annual Meeting 2012, Leipzig, Germany.
- Herrmann, H., Hudjetz, S., **Brinkmann, M.**, Schäffer, A., Hollert, H. Cofalla, C., Lorke, S., Schüttrumpf, H., Kammann, U. (2012) Turbulent. Trübe. Toxisch? Bioverfügbarkeit und Toxizität sedimentbürtiger Schadstoffe während der Remobilisierung in einem Kreisgerinne. SETAC German Language Branch Annual Meeting 2012, Leipzig, Germany.
- Hudjetz, S., **Brinkmann, M.**, Cofalla, C., Roger, S., Kammann, U., Hecker, M., Schmidt, B., Schüttrumpf, H., Wölz, J., Hollert, H. (2011) A multiple biomarker approach to assess the toxicity of re-suspended sediments during simulated flood events – a feasibility study. International SedNet Conference, April 2011, Venice Italy.
- Brinkmann, M.**, Hudjetz, S., Cofalla, C., Roger, S., Kammann, U., Schüttrumpf, H., Hollert, H. (2011) Uptake and effects of particle-bound polycyclic aromatic hydrocarbons (PAH) from spiked sediment suspensions in rainbow trout (*Oncorhynchus mykiss*, Walbaum). SETAC Europe Annual Meeting 2011, Milan, Italy.
- Lundström, E., Breitholtz, M., **Brinkmann, M.**, Preuss, T.G. (2011) Modelling harpacticoid copepod populations; a comparison of matrix and individual based modelling. SETAC Europe Annual Meeting 2011, Milan, Italy.
- Kuckelkorn, J., **Brinkmann, M.**, Hudjetz, S., Cofalla, C., Roger, S., Buchinger, S., Reifferscheid, G., Erdinger, L., Zimmer, H., Schüttrumpf, H., Hollert, H. (2011) Assessing the toxicity of metals in suspended sediments with different biomarkers. SETAC Europe Annual Meeting 2011, Milan, Italy.

- Heger, S., Bluhm, K., **Brinkmann, M.**, Winkens, K., Schneider, A., Wollenweber, M., Maletz, S., Wölz, J., Agler, M., Angenent, L., Seiler, T.-B., Hollert, H. (2011) What's up inside the reactor - biotests for risk assessment of biofuel fermentation. SETAC Europe Annual Meeting 2011, Milan, Italy.
- Gottselig, N., Bluhm, K., **Brinkmann, M.**, Hudjetz, S., Peddinghaus, S., Schulze, M., Heimann, W., Schulz, R., Hollert, H. (2010) Mutagenic activity in sediments and fish samples of the quarry pond Karlskopf of River Rhine: linking effects from the laboratory to the field. Aquatic Toxicity Workshop, October 3-6 2010, Toronto, Canada.
- Kuckelkorn, J., **Brinkmann, M.**, Hudjetz, S., Cofalla, C., Roger, S., Buchinger, S., Reifferscheid, G., Erdinger, L., Schüttrumpf, H., Hollert, H. (2010) Bewertung der Metalltoxizität in resuspendierten Sedimenten anhand der Quantifizierung von Metallothionein als Biomarker. SETAC German Language Branch Annual Meeting 2010, Dessau, Germany.
- Brinkmann, M.**, Hinger, G., Bluhm, K., Sagner, A., Takner, H., Eisenträger, A., Braunbeck, T., Engwall, M., Thiem, A., Hollert, H. (2010) Heterocyclic aromatic compounds are Ah receptor agonists *in vitro*. SETAC Europe Annual Meeting 2010, Seville, Spain.
- Brinkmann, M.**, Hudjetz, S., Cofalla, C., Roger, S., Schüttrumpf, H., Hollert, H. (2010) The interdisciplinary project FLOODSEARCH II – Flood risk assessment between sediment dynamics, contamination and climate change. SETAC Europe Annual Meeting 2010, Seville, Spain.
- Hudjetz, S., **Brinkmann, M.**, Cofalla, C., Roger, S., Schmidt, B., Schäffer, A., Schüttrumpf, H., Hollert, H., Wölz, J. (2010) Searching for the (eco)toxicological relevance of sediment re-mobilisation and transport during flood events in rivers. Part A: instrumental chemical analysis and effect-directed analysis (EDA). SETAC Europe Annual Meeting 2010, Seville, Spain.
- Heger, S., Bluhm, K., **Brinkmann, M.**, Winkens, K., Schneider, A., Wollenweber, M., Maletz, S., Wölz, J., Agler, M., Angenent, L., Seiler, T.-B., Hollert, H. (2010) What's up inside the reactor - biotests for risk assessment of biofuel fermentation. SETAC Europe Annual Meeting 2010, Seville, Spain.
- Brinkmann, M.**, Hudjetz, S., Cofalla, C., Roger, S., Kammann, U., Giesy, J., Hecker, M., Schüttrumpf, H., Wölz, J., Hollert, H. (2009) Searching for the (eco)toxicological relevance of sediment re-mobilisation and transport during flood events in rivers. Part B: CYP1A1 induction, micronuclei in blood cells and gene expression analysis. SETAC Europe Annual Meeting 2009, Göteborg, Sweden.
- Hudjetz, S., **Brinkmann, M.**, Cofalla, C., Roger, S., Schmidt, B., Schäffer, A., Schüttrumpf, H., Hollert, H., Wölz, J. (2009) Searching for the (eco)toxicological relevance of sediment re-mobilisation and transport during flood events in rivers. Part A: instrumental chemical analysis and effect-directed analysis (EDA). SETAC German Language Branch Annual Meeting 2009, Weihenstephan, Germany.
- Hudjetz, S., **Brinkmann, M.**, Cofalla, C., Roger, S., Schmidt, B., Schäffer, A., Schüttrumpf, H., Hollert, H., Wölz, J. (2009) Searching for the (eco)toxicological relevance of sediment re-mobilisation and transport during flood events in rivers. Part A: instrumental chemical analysis and effect-directed analysis (EDA). SETAC Europe Annual Meeting 2009, Göteborg, Sweden.

- Heger, S., Winkens, K., Schneider, A., **Brinkmann, M.**, Wollenweber, M., Maletz, S., Wölz, J., Agler, M.T., Angenent, L.T., Seiler, T.-B., Hollert, H. (2009) Assessing the ecotoxicological effects of bioenergy extraction processes. SETAC German Language Branch Annual Meeting 2009, Weihenstephan, Germany.
- Winkens, K., Otte, J.C., **Brinkmann, M.**, Zielke, H., Wölz, J., Seiler, T.-B., Hollert, H. (2009) Weiterentwicklung eines biologischen Testverfahrens zur Messung von Ah-Rezeptor-Agonisten in *Danio rerio* Fischeiern. SETAC German Language Branch Annual Meeting 2009, Weihenstephan, Germany.
- Schneider, A.J., **Brinkmann, M.**, Gerstner, A., Wölz, J., Heger, S., Weber, R., Bogdal, C., Engwall, M., Takasuga, T., Seiler, T.-B., Hollert, H. (2009) A combined strategy for detecting dioxin-like compounds in soils from former factories of chloralkali-electrolysis and leblanc-soda-production. SETAC Europe Annual Meeting 2009, Göteborg, Sweden.
- Lundström, E., **Brinkmann, M.**, Dahl, U., Ek, K., Björlenius, B., Wahlberg, C., Breitholtz, M (2009) Copepod population modeling as a tool for evaluating additional sewage water treatment techniques. SETAC Europe Annual Meeting 2009, Göteborg, Sweden.
- Heger, S., Winkens, K., Schneider, A.J., **Brinkmann, M.**, Maletz, S., Wölz, J., Agler, M.T., Angenent, L.T., Seiler, T.-B., Hollert, H. (2009) Assessing the ecotoxicological effects of bioenergy extraction processes. SETAC Europe Annual Meeting 2009, Göteborg, Sweden.
- Zielke, H., **Brinkmann, M.**, Ottermanns, R., Preuß, T.G., Roß-Nickoll, M., Schmidt, B., Ratte, H.-T., Schäffer, A., Seiler, T.-B., Holert, H. (2009) Das Studentenlabor „Faszination Umwelt“ – Universität und Industrie Hand in Hand für eine exzellente Ausbildung in der Ökotoxikologie. SETAC German Language Branch Annual Meeting 2009, Weihenstephan, Germany.

## **16. REPORTS AND OTHER OUTPUTS**

### *Published*

Tiehm, A., Hollert, H., Müller, A., Schneider, A., Krassnitzer, A., Deutschmann, B., Simon, A., **Brinkmann, M.**, Lehmann, G., Hotz, S. (2013) Altlastenbezogene Bewertungs- und Analyseempfehlung für kurzkettige Alkylphenole (SCAP) und NSO-Heterozyklen (NSO-HET) – Modul 3 (Projekt-Nr. B 2.11). Report to the German Soil and Water Conservation Boards (LABO/LAWA).

## **17. BOOK REVIEWS**

Nil

## **18. INTELLECTUAL PROPERTY**

Nil

## **19. RESEARCH FUNDING HISTORY**

\*Note: “Externally assessed” involves blind peer-review; “Internally assessed” involves arms-length review within the U of S

### *Principal Investigator or co-PI*

**Brinkmann, M.** (2019-2024). Cold Regions Exposure and Risk Assessment Modelling Laboratory (CERAS), Canada Foundation for Innovation (CFI) John R. Evans Leaders Fund, principal investigator, total funding: 114,294 CAD. (Externally Assessed)

Smith, K. & **Brinkmann, M.** (2019-2021). Improving IVIVE extrapolation models to predict bioconcentration using in vitro biotransformation rates for bioaccumulation assessment in fish, European Chemicals Industry Council Long-range Research Initiative (CEFIC-LRI), co-investigator, total funding: 471,600 CAD; amount received: 124,000 CAD. (Externally Assessed)

**Brinkmann, M.** (2019-2024). Understanding the impacts of environmental factors on uptake and effects of ionizable organic chemicals in aquatic organisms’, NSERC Discovery Grants Program, principal investigator, total funding: 140,000 CAD. (Externally Assessed)

**Brinkmann, M.** (2019-2024). Understanding the impacts of environmental factors on uptake and effects of ionizable organic chemicals in aquatic organisms’, NSERC Discovery Launch Supplement, principal investigator, total funding: 12,500 CAD. (Externally Assessed)

Wiseman, S. & **Brinkmann, M.** (2019). Bioconcentration and bioaccumulation of organics from OSPW’, Canadian Oil Sands Innovation Alliance (COSIA), co-principal investigator, total funding: 50,200 CAD; amount received: 30,000 CAD. (Externally Assessed)

Jardine, T. & **Brinkmann, M.** (2019 - 2021). We Need More Than Just Water: Assessing Sediment Limitation in a Large Freshwater Delta, Global Water Futures, co-investigator, total funding: 200,000 CAD; amount received: 30,000 CAD. (Internally Assessed)

**Brinkmann, M.** (2018 – 2023). Combined Hydrological, Exposure and Risk Assessment Models in Support of Environmental Risk Assessment, Global Water Futures and institutional startup funds, principal investigator, total funding: 150,000 CAD. (Internally Assessed)

**Brinkmann, M.** (2018 – 2023). Faculty Recruitment and Retention Funds, principal investigator, total funding: 30,000 CAD. (Internally Assessed)

### **---Appointment as Assistant Professor at U of S (August 2018)---**

Hecker, M. & **Brinkmann, M.** (2016 – 2018). Banting Fellowship of the Natural Sciences and Engineering Research Council of Canada (NSERC) entitled ‘Advancing chemical risk assessment through novel approaches in predictive ecotoxicology’, University of Saskatchewan, Saskatoon, Canada; total funding: 150,000 CAD plus institutional contributions of 60,000 CAD; mount received: 210,000 CAD. (Externally Assessed)

Hollert, H. & **Brinkmann, M.** (2016 – 2017). Correlation analysis of instrumentally and bioanalytically-derived sediment quality descriptors, German Federal Institute of Hydrology (BfG), co-principal investigator; total funding: 744,000 CAD. (Externally Assessed)

Schüttrumpf, H. & **Brinkmann, M.** (2014 – 2016). German Federal Ministry of Education and Research (BMBF), Joint German-Israeli Water Technology Research Program: ‘W<sup>3</sup>-Hydro – Water Quality Event Detection for Urban Water Security and Urban Water Management Based on Hydrotoxicological Investigations’, co-investigator; total funding: 350,000 CAD. (Externally Assessed)

- Hollert, H. & **Brinkmann, M.** (2013). German federal and regional-state soil conservation board (LABO) project ‘Recommendations for analysis and assessment of sites contaminated with short-chained alkyl phenols and NSO-heterocyclic compounds’, co-investigator; total funding: 103,000 CAD. (Externally Assessed)
- Reifferscheid, G. & **Brinkmann, M.** (2012 – 2015). German Federal Ministry of Transport, Building and Urban Development: ‘DioRAMA – Assessment of the dioxin-like activity in sediments and fish for sediment evaluation’ via the German Federal Institute of Hydrology (BfG), co-principal investigator; total funding: 626,000 CAD. (Externally Assessed)
- Hollert, H. & **Brinkmann, M.** (2009 – 2012). Boostfunds project ‘Floodsearch II’ supported by the Excellence Initiative of the German Research Foundation, co-principal investigator; total funding: 431,000 CAD. (Externally Assessed)
- Hollert, H. & **Brinkmann, M.** (2009 – 2010). Dean’s seed fund project of RWTH Aachen University ‘Eco-toxicological characterization of NSO-heterocyclic compounds’, co-principal investigator; total funding: 50,000 CAD. (Internally Assessed)

*Collaborator*

- Hecker, M., Crump, D., Basu, N. (2016 – 2020). EcoToxChip: A toxicogenomics tool for chemical prioritization and environmental management’, Genome Canada, study manager and science advisor, total funding: 9,638,754 CAD. (Externally Assessed)
- Hollert, H., Lehmkuhl, F., Letmathe, P., Schüttrumpf, H., Wessling, M., Häussling, R. (2016 – 2018). Project house water: a novel interdisciplinary framework to assess the environmental and socioeconomic consequences of food-related impacts’, supported by the Excellence Initiative of the German Research Foundation, collaborator; total funding: 775,000 CAD. (Internally Assessed)
- Hollert, H., Schüttrumpf, H. (2009 – 2010). Investigation of the environmental impacts of slag blocks from copper industry as construction materials in federal waterways’, German Federal Institute of Hydrology (BfG), collaborator; total funding: 91,000 CAD. (Externally Assessed)
- Hollert, H., Schüttrumpf, H. (2008 – 2009). Pathfinder project ‘Floodsearch’ supported by the Excellence Initiative of the German Research Foundation, collaborator; total funding: 55,000 CAD. (Internally Assessed)

## **20. PRACTICE OF PROFESSIONAL SKILLS**

2018-2019

Manuscript reviews (33) for BMC Systems Biology (1), Environmental Sciences Europe (4), Science of the Total Environment (9), Environmental Pollution (1), Ecotoxicology and Environmental Safety (5), Environmental Science and Technology (2), Water Research (6), Environmental Science and Pollution Research (3), Environmental Toxicology and Chemistry (1), and Aquatic Toxicology (1).

Grant review (1) for the Ontario Agri-Food Innovation Alliance (OMAFRA-UofG Partnership) Research Program.

*Previously*

Manuscript reviews (not counted) for Aquatic Toxicology, Bulletin of Environmental Contamination and Toxicology, Conservation Physiology, Chemosphere, Comparative Biochemistry and Physiology, Ecotoxicology and Environmental Safety, Environmental

Engineering Science, Environmental Science and Technology, Environmental Toxicology and Chemistry, Ecotoxicology, Environmental Science and Pollution Research, Environmental Research, Environment International, Environmental Pollution, Environmental Sciences Europe, Fish Physiology and Biochemistry, Journal of Soils and Sediments, Marine Environmental Research, Marine Pollution Bulletin, PLOS One, Science of the Total Environment, Toxics, Water Research.

## **21. ADMINISTRATIVE SERVICE**

### **21.1 University committees**

Member – Sustainability Revolving Funds Committee, August 2018-present

### **21.2 College or Departmental committees**

Member – SENS Academic Programs Committee, 2018-present

Member – Master’s in Chemical Risk Assessment Executive Committee, 2018-present

Member – Toxicology Awards Committee, 2018-present

Member – Toxicology Faculty Council, 2018-present

### **21.3 Other administrative service**

Participant – SENS W.P. Thompson Design Workshop – March 2019

Member – SENS Ad-hoc Committee to work on W.P. Thompson Design Competition – November 2018

## **22. PROFESSIONAL OR ASSOCIATION OFFICES AND COMMITTEE ACTIVITY OUTSIDE U OF S**

Member – Selection Committee for the SETAC North America Recent Graduate Travel Award, 2019

Member – Selection Committee for Short Courses to be delivered at the SETAC North America Annual Meeting in Toronto, 2019

Member – American Geophysical Union (AGU), 2018-present

Member – Health and Environmental Sciences Institute (HESI) Bioaccumulation Committee, Fish sub-team, 2018-present

Guest Editor – Special Issue on “Contaminant Effects on Zebrafish Embryos” in MDPI Toxics, 2018-2019

### **---Appointment as Assistant Professor at U of S (August 2018)---**

Editor – Springer Protocols Book on “In situ bioavailability and toxicity”, 2018-present

Member – American Chemical Society (ACS), 2014-present

Ad-hoc Member – German Institute of Standardization (DIN) workgroup ‘Analysis of NSO-heterocyclic compounds in water’, 2013-present

Member – Editorial Board of the Springer journal *Environmental Sciences Europe* (ESEU), 2011-present

Associated Member – SETAC Europe Student Advisory Council (SAC), elected member, since 2014 associated member, 2014-present

Chair – SETAC Europe Student Advisory Council (SAC) und non-voting member in the SETAC Europe Council (SEC), 2009-2011  
Elected Member – SETAC Europe Student Advisory Council (SAC), 2008-2014  
Member – Society of Environmental Toxicology and Chemistry (SETAC), 2005-present

## **23. PUBLIC AND COMMUNITY CONTRIBUTIONS – UNIVERSITY RELATED**

Official University of Saskatchewan press release, ‘Toxic metals found in reproductive organs of critically endangered eels’, <https://news.usask.ca/articles/research/2019/toxic-metals-found-in-reproductive-organs-of-critically-endangered-eels.php>, June 2019

*Media coverage resulting from above press release:*

Online and print coverage in: Daily Excelsior, Environmental News Network, Farm Table, Inside Ecology, Mail Today, Science Daily, The New Indian Express, among others; June 6<sup>th</sup> – 8<sup>th</sup>, 2019

Official Thünen Institute press release, ‘Geschlechtsreife Aale bauen ihre Knochen ab’ (German), <https://www.thuenen.de/de/infothek/presse/aktuelle-pressemittelungen/geschlechtsreife-aale-bauen-ihre-knochen-ab/>, May 2019

*German media coverage resulting from above press release:*

Online and print stories, titles including: ‘Gift für Eier: Schwermetalle können Fortpflanzung der Aale gefährden’, ‘Knochenschwund auf Wanderung: Vergiftet der Aal seine Brut selbst?’, ‘Was dem aussterbenden Europäischen Aal besonders zusetzt’, etc.; covered in: Aachener Nachrichten, Abendzeitung München, Bild, Der Standard, Dicht am Fisch, Focus Online Generalanzeiger, Handelsblatt, Hessische/Niedersächsische Allgemeine, Heute Nachrichten, Kurier, Laborpraxis Vogel, Mindener Tageblatt, MSN News, OriGo, Osnabrücker Zeitung, Ostfriesische Nachrichten, Ostfriesen-Zeitung, Radio Television Luxemburg, Rhein Zeitung, Sat1 Regional, Stern, Neue Presse Coburg, Verband Deutscher Biologen, Yahoo News, Westfalenpost May 13th - 22nd, 2019

TV coverage, ‘RWTH Aachen: Aale in unseren Flüssen durch Schwermetalle gefährdet’, WDR Lokalzeit Aachen, May 14th, 2019

Official Thünen Institute press release, ‘Maturing eels break down their skeleton to fuel reproduction’ (English), <https://www.thuenen.de/en/info-desk/press-releases/press-releases-2019/maturing-eels-break-down-their-skeleton-to-fuel-reproduction/>, May 2019

*English language media coverage resulting from above press release:*

Online and print stories, title ‘Poison for Eggs: Heavy metals can endanger the reproduction of the eels’, Time Online, May 14th, 2019

### **---Appointment as Assistant Professor at U of S (August 2018)---**

Official U of S press release, ‘Prestigious Banting Fellowships bring two top researchers to U of S’, October 2016

Article in the national newspaper Frankfurter Allgemeine Zeitung, ‘Gastforscher mit 23’ regarding the career opportunities provided by the Undergraduate Research Opportunities Programme (UROP) at Aachen University, January 2015

University magazine RWTHintern, ‘Exzellente Forellen’ regarding the early-career opportunities for Markus Brinkmann in context of the Excellence Initiative of the German Research Council (DFG), 2011

Official RWTH Aachen press release, ‘Studierende des Instituts für Umweltforschung der RWTH organisieren internationale Umweltagung in Aachen’ regarding the second SETAC Europe Young Environmental Scientists (YES) Meeting in Aachen, Germany, January 2011

Article in the local newspaper Aachener Zeitung, ‘Wissenschaft kann und soll Spaß machen’ regarding the second SETAC Europe Young Environmental Scientists (YES) Meeting in Aachen, Germany, March 2011

University broadcasting station of RWTH Aachen University, live interview regarding the first Young Environmental Scientists (YES) Meeting in Landau, Germany, March 2009

## **24. OTHER ACTIVITIES**

Reception for Her Honour the Honourable Elizabeth Dowdeswell, Lieutenant Governor of Ontario, 2018

Introduction to Toxicology and tour to Aquatic Toxicology Research Facility (ATRF) and the Toxicology Centre for Grade 8 students from Silverspring School, Saskatoon, 2018

Introduction to the Global Institutes for Water Security and Global Water Futures, and tour to Aquatic Toxicology Research Facility (ATRF) for Minister of Fisheries, Oceans and the Canadian Coast Guard of Canada, Jonathan Wilkinson, 2018

Introduction to the School of Environment and Sustainability, and tour to the Toxicology Centre for delegates from Escuela Superior Politécnica de Chimborazo (ESPOCH), Ecuador, 2018