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**EDUCATION**

**Massachusetts Institute of Technology/ Woods Hole Oceanographic Institution Joint Program**,  
Cambridge, MA, Ph.D. in Oceanography, May 1988.

**Harvard University**, Cambridge, MA, A.M. in Chemistry, January 1981.

**Cornell University**, Ithaca, NY, A.B. in Chemistry, June 1979.

**PROFESSIONAL EXPERIENCE**

**Swiss Federal Institute of Aquatic Science and Technology (Eawag)** (2007 to present) Director.

**Swiss Federal Institute of Technology Lausanne (EPFL)** (2010 to present) Professor of Environmental  
Chemistry, School of Architecture, Civil Engineering and Environmental Engineering (ENAC).

**Swiss Federal Institute of Technology Zürich (ETHZ)** (2007 to present) Professor of Environmental  
Biogeochemistry, Department of Environmental Sciences; affiliated faculty, Department of Civil,  
Environmental, and Geomatic Engineering.

**California Institute of Technology**, Environmental Science & Engineering Department, (2009-2011)  
Visiting Associate, (2002-2008) Professor, (1996-2002) Associate Professor; (2003-2006) Executive  
Officer, Keck Laboratories for Bioengineering, Environmental Science & Engineering, and Materials  
Science.

**University of California, Los Angeles**, Civil and Environmental Engineering Department, (1997-1999)  
Adjunct Professor, (1995-1996) Associate Professor, (1991-1995) Assistant Professor.

**Institute for Water Resources and Water Pollution Control (EAWAG)**, Dübendorf, Switzerland,  
Chemistry Department, (1988-1991) Research Fellow.

**Massachusetts Institute of Technology**, Cambridge, MA, Ralph M. Parsons Laboratory for Water  
Resources and Hydrodynamics, Department of Civil Engineering, (1982-1988) Research and  
Teaching Assistant.

**Harvard University**, Cambridge, MA, Chemistry Department, (1979-1981) Research and Teaching  
Assistant.

**Cornell University**, Ithaca, NY, Chemistry Department, (1978-1979) Teaching Assistant.

**Mobil Oil Research and Development Corporation**, Princeton, NJ, (Summer 1978) Summer Research  
Intern

**RESEARCH INTERESTS**

Knowledge exchange at the interface of science with policy and practice

Biogeochemical cycling of trace metals and metalloids: microbial redox cycling; field studies of metal  
redox cycling, mobilization, and sequestration

Water treatment processes for removal of inorganic contaminants: role of sorption in contaminant  
removal; design of novel sorbents

Mineral weathering and reactions at mineral surfaces: mechanisms and kinetics of dissolution and  
precipitation reactions; macroscopic, spectroscopic, and modeling studies of sorption processes

**SELECTED ACTIVITIES**

**2020 to present**, member Swiss Commission for UNESCO.

**2020 to present**, co-Chair, SDSN Switzerland.

**2019 to present**, member IRGC Foundation Council.

- 2019**, member, Universities of Excellence Panel for the University of Tübingen, Germany.
- 2018**, laureate, Clarke Water Prize
- 2018 to present**, member, advisory board for Sustainability Research SCNAT (and Future Earth National Committee)
- 2018 to present**, member, advisory board for td-net SCNAT
- 2018 to present** Fellow, the Geochemical Society and European Association of Geochemistry
- 2017 to present** member, scientific advisory board, Ernst Strüngmann Forum, Frankfurt am Main, Germany
- 2017 to present** Honorary Fellow, IHE Delft, the Netherlands
- 2017 to present**, foreign member, Russian Academy of Natural Sciences
- 2016–2019** member, Swiss National Science Foundation Council.
- 2016 to present** President, ETH Women Professors Forum (2012–2016 Vice President)
- 2015 to present** member, U.S. National Academy of Engineering
- 2015** recipient, IUPAC 2015 Distinguished Women in Chemistry or Chemical Engineering Awards, awarded at the 45th World Chemistry Congress, 9-14 August 2015, Busan, South Korea.
- 2010 to present** member, Board of Reviewing Editors, *Science*.

## SELECTED RECENT PUBLICATIONS

### *Papers in Professional Journals*

- Biswakarma, J., Kang, K., Schenkeveld, W.D.C., Kraemer, S.M., Hering, J.G. and Hug, S.J. (2020) “Linking Isotope-Exchange with Fe(II)-Catalyzed Dissolution of Iron (hydr)oxides in the Presence of the Bacterial Siderophore Desferrioxamine-B”, *Environ. Sci. Technol.* 54: 768-777, DOI: 10.1021/acs.est.9b04235
- Hering, J.G. (2019) “From slide rule to big data: the digital transformation in water science”, *J. Environ. Eng., ASCE*, 145(8): 02519001, [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0001578](https://doi.org/10.1061/(ASCE)EE.1943-7870.0001578).
- Hering, J.G. (2019) “Women as Leaders in Academic Institutions: Personal Experience and Narrative Literature Review”, *Pure App. Chem*, 91(2): 331–338, <https://doi.org/10.1515/pac-2018-0603>.
- Biswakarma, J., Kang, K., Borowski, S. C., Schenkeveld, W. D. C., Kraemer, S. M., Hering, J. G., & Hug, S. J. (2019). Fe(II)-catalyzed ligand-controlled dissolution of iron(hydr)oxides. *Environ. Sci. Technol.*, 53: 88-97. <https://doi.org/10.1021/acs.est.8b03910>
- Hering, J.G. (2019) “Drink safely with biomimetic nanotechnology” (News and Views), *Nature Nanotechnology*, 14(1): 5-6. DOI: 10.1038/s41565-018-0326-5.
- Hering, J.G. (2018) “Implementation Science for the Environment”, *Environ. Sci. Technol.*, 52: 5555–5560, <http://dx.doi.org/10.1021/acs.est.8b00874>.
- Senn, A.C., Hug, S.J., Kaegi, R., Hering, J.G. and Voegelin, A. (2018) “Arsenate co-precipitation with Fe(II) oxidation products and retention or release during precipitate aging”, *Water Research*, 131: 334-345.
- Hering, J.G., Katsoyiannis, I.A., Ahumada Theoduloz, G., Berg, M. and Hug, S.J. (2017) “Arsenic removal from drinking water: Experiences with technologies and constraints in practice”, *J. Environ. Eng ASCE*, DOI: 10.1061/(ASCE)EE.1943-7870.000122.
- Hoffmann, S, Pohl, C. and Hering J.G. (2017) “Methods and procedures of transdisciplinary knowledge integration: empirical insights from four thematic synthesis processes”, *Ecology and Society*, 22 (1):27, URL: <http://www.ecologyandsociety.org/vol22/iss1/art27/>.
- Hoffmann, S, Pohl, C. and Hering J.G. (2017) “Exploring transdisciplinary integration within a large research program: empirical lessons from four thematic synthesis processes”, *Research Policy*, <http://dx.doi.org/10.1016/j.respol.2017.01.004>.
- Senn, A.C., Kaegi, R., Hug, S.J., Hering, J.G., Mangold, S. and Voegelin, A. (2017) “Effect of aging on the structure and phosphate retention of Fe(III)-precipitates formed by Fe(II) oxidation in water”, *Geochim. Cosmochim. Acta*, 202: 341–360, <http://dx.doi.org/10.1016/j.gca.2016.12.033>.

- Hering, J.G. (2017) “Maintaining Trust and Objectivity in the Context of Use-Inspired Research” (letter to the editor), *Environ. Sci. Technol.*, 51: 1054, DOI: 10.1021/acs.est.6b05825.
- Hering, J.G. (2016) “Do We Need More Research or Better Implementation through Knowledge Brokering?” *Sustainability Science*, 11:363-369 (published online June 2015) DOI: 10.1007/s11625-015-0314-8.
- Hering, J.G., Maag, S. and Schnoor, J.L. (2016) “A Call for Synthesis of Water Research to Achieve the Sustainable Development Goals by 2030” (Viewpoint) *Environ. Sci. Technol.* 50: 6122–6123, DOI: 10.1021/acs.est.6b02598.
- Hering, J.G., Sedlak, D.L., Tortajada, C., Biswas, A.K., Niwagaba, C. and Brey, T. (2015) “Local perspectives on water” *Science*, 349:479-480, DOI: 10.1126/science.aac5902 (policy forum)
- Kunz, N.C., Fischer, M., Ingold, K., Hering, J.G. (2015) “Drivers and barriers towards municipal wastewater recycling: A review of previous approaches and directions for future research”, *Water. Sci. Technol.* DOI: 10.2166/wst.2015.496.
- Kunz, N., Fischer, M., Ingold, K., Hering, J.G., (2015) “Why do some water utilities recycle more than others? A Qualitative Comparative Analysis in New South Wales, Australia”, *Environ. Sci. Technol.* 49: 8287–8296, DOI: 10.1021/acs.est.5b01827.
- Hering, J.G., Dzombak, D.A., Green, S.A., Luthy, R.G. and Swackhamer, D. (2014) “Engagement at the Science–Policy Interface” (Viewpoint) *Environ. Sci. Technol.*, 48: 11031–11033, DOI: 10.1021/es504225t
- Tilley, E., Trande, L., Lüthi, C., Mosler, H.-J., Udert, K.M. Gebauer, H. and Hering, J.G. (2014) “Looking beyond technology: an integrated approach to water, sanitation and hygiene in low income countries” (Feature), *Environ. Sci. Technol.*, 48: 9965-9970, DOI: 10.1021/es501645d
- Hering, J.G., Waite, T.D., Luthy, R., Drewes, J., and Sedlak, D. (2013) “A Changing Framework for Urban Water Systems”, *Environ. Sci. Technol.*, 47: 10721-10726, dx.doi.org/10.1021/es4007096.
- Hering, J.G. and Eggen, R.I.L. (2013) “Interdisciplinary research to address societal issues” (perspective) *Environ. Sci. Technol.*, 47 :6730–6731, DOI: 10.1021/es402161g.
- Hering, J.G. and Ingold, K.M. (2012) “Water Resources Management: What Should Be Integrated?”, *Science*, 336: 1234-5. (policy forum)

### **Books and Chapters in Books**

- Hering, J.G. (2020) “Fresh Water”, In: *Earth 2020: An Insider’s Guide to a Rapidly Changing Planet*, P.D. Tortell (Ed.), Cambridge: Open Book Publishers, pp. 221-229, <https://www.openbookpublishers.com/10.11647/obp.0193.pdf>.
- Hering, J.G. (2020) “Water: The Environmental, Technological and Societal Complexity of a Simple Substance. In: *Encyclopedia of Water: Science, Technology, and Society*, P. Maurice (Ed.), New York: Wiley, <https://doi.org/10.1002/9781119300762.wsts0038>
- Hering, J.G., Nunnemacher, L. and von Waldow, H. (2018) Perspectives from a Water Research Institute on Knowledge Management for Sustainable Water Management“ (2018) in *Handbook of Knowledge Management for Sustainable Water Systems*, (Series *Challenges in Water Management*), M. Russ (Ed.) Wiley, New York, pp. 13-33, <http://dx.doi.org/10.1002/9781119271659.ch1>.
- Hering, J.G. and Vairavamoorthy, K., “Harvesting Experience to Support Sustainable Urban Water Management” in *Assessing Water Megatrends* (working title), A.K. Biswas, C. Tortajada and P. Rohner (Eds.), Springer, Berlin, pp. 61-75, [https://doi.org/10.1007/978-981-10-6695-5\\_4](https://doi.org/10.1007/978-981-10-6695-5_4).
- Hering, J.G., Hug, S., Farnsworth, C. and O’Day, P.A. (2011) “Role of coupled redox transformations in the mobilization and sequestration of arsenic”, in *Aquatic Redox Chemistry*, ed. P.G. Tratnyek, T.J. Grundl, S.B. Haderlein, *ACS Symposium Series*, vol. 1071, pp 463-476, DOI: 10.1021/bk-2011-1071.

### **Other Publications**

- Hering, J. (2019). Counting is not enough - rediscovering the value of narrative. *Elephant in the Lab*. <https://doi.org/10.5281/zenodo.2562817>

- Hering, J.G. (2018) “Getting Water Research into Policy and Practice (GRIPP for Water)”, Clarke Prize lecture. National Water Research Institute (NWRI): Irvine, CA, 12 pp., <https://doi.org/10.5281/zenodo.1469682>.
- Hering, J.G. (2018) “Scientific publishing – why should academic research institutions be concerned?”, Open Science Framework Quick File, <https://osf.io/4an7c>.
- Hering, J.G. (2018) “Reconnecting academic research with societal needs through assessment”, Open Science Framework Quick File, <https://osf.io/kbcn2>.
- Hering, J.G. and von Waldow, H. (2017) Concept Note: Call for Management of Knowledge Relating to Freshwater and Sustainable Knowledge Management as a Public Good (version 2), <https://osf.io/28rhn/>.
- Hering, J.G. (2017) Water Data Portals: An Annotated List (versions 3 and 2: <https://osf.io/8mn3q/>; version 1: <https://doi.org/10.5281/zenodo.495080>)
- Hering, J., Thorleifson, H., van Geer, F., Verstraete, W. and Voss, V. (2015) “Scientific evaluation of programme area 2 Water resources (2007-2014) at the Geological Survey of Denmark and Greenland (GEUS)” Report 2015/27, GEUS, Copenhagen.
- Hering, J.G. (2014) “A virtual flood of information: open data for sustainable water management” Future Earth blog, <http://www.futureearth.info/blog/2014-aug-27/virtual-flood-information-open-data-sustainable-water-management>
- Hering, J.G. (2013) “Many paths to a common goal: water in context” Eawag Newsletter (online), [http://www.eawag.ch/medien/publ/news/2013\\_na\\_01/01\\_e.pdf](http://www.eawag.ch/medien/publ/news/2013_na_01/01_e.pdf)
- Hering, J.G. (2012) “An End to Waste?” (editorial) *Science*, 337: 623, DOI:10.1126/science.1227092.
- Hering, J.G. and Schnoor, J. (2011) “Eawag at 75” (comment) *Environ. Sci. Technol.* 45: 9115, DOI: 10.1021/es203291e.