



## Curriculum Vitae

### Personal information Gerd Maack

#### Work experience

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1. Employer: German Environment Agency (UBA)
  - Start date: 07 2007
  - End date:
  - Position: Senior Scientific Assessor
  - Activities: 1. Environmental Risk Assessment of Human and Veterinary Medicinal Products.
2. Training Courses for Students, Consultants and Industry, regarding the ERA for Pharmaceuticals.
3. Advise government departments, including EU DG Environment and DG Sanco, regarding Environmental Impacts of Pharmaceuticals
  - Country: Germany
2. Employer: University of Exeter
  - Start date: 042002
  - End date: 062007
  - Position: Post Doctoral Researcher
  - Activities: Research: Effects of Endocrine Active Substances on Fish Development of test systems for assessing effects of estrogenic waste water on fish. Supervising BSc and Master students
    - Country: United Kingdom

#### Education and training

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1. Subject: Helmholtz Institute for Environmental Research, Leipzig (UFZ)
  - Start date: 02 1998
  - End date: 03 2002
  - Qualification: PhD\_Thesis
  - Organisation:
  - Country: Germany

#### Additional information

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##### Publications

Maack, Gerd; Åystö, Lauri; Carere, Mario; Clausen, Henning; James, Alice; Junghans, Marion; Junttila, Ville; Hollender, Juliane; Marinov, Dimitar; Stroomberg, Gerard; Triebkorn, Rita; Verbruggen, Eric; Lettieri, Teresa (2022). "Comment on Environmental quality standards for diclofenac derived under the European Water Framework Directive: 1. Aquatic organisms." *Environmental Sciences Europe* 34(1): 24. Maack, G.; Williams, M.; Backhaus, T.; Carter, L.; Kullik, S.; Leverett, D.; Nostro, F. L. L.; Sallach, J. B.; Staveley, J.; Van den Eede, C. (2022). "Pharmaceuticals in the Environment: Just One Stressor Among Others or Indicators for the Global Human Influence on Ecosystems?" *Environ Toxicol Chem* 41 (3) 541\_543. Maack, G.; Arning, J.; Frische, T.; Kehrer\_Berger, A.; Mordziol, C. (2020). Assessment of Endocrine disruptor under European regulations. *Neuroendocrine Regulation of Animal Vocalization*. C. S. Rosenfeld and F. Hoffmann, Elsevier: 255 \_ 362. Agerstrand, M.; Arnold, K.; Balshine, S.; Brodin, T.; Brooks, B. W.; Maack, G.; McCallum, E. S.; Pyle, G.; Saaristo, M.; Ford, A. T. (2020). "Emerging investigator series: use of behavioural endpoints in the regulation of chemicals." *Environ Sci Process Impacts* 22: 49\_65. Martin, Olwenn V.; Adams, Julie; Beasley, Amy; Belanger, Scott; Breton, Roger L.; Brock, Theo C. M.; Buonsante, Vito A.; Galay Burgos, Malyka; Green, John; Guiney, Patrick D.; Hall, Tilghman; Hanson, Mark; Harris, Meagan J.; Henry, Tala R.; Huggett, Duane; Junghans, Marion; Laskowski, Ryszard; Maack, Gerd; Moermond, Caroline T. A.; Panter, Grace; Pease, Anita; Poulsen, Veronique; Roberts, Mike; Rudén, Christina; Schlegel, Christian E.; Schoeters, Ilse; Solomon, Keith R.; Staveley, Jane; Stubblefield, Bill; Sumpter, John P.; Warne, Michael St J.; Wentsel, Randall; Wheeler, James R.; Wolff, Brian A.; Yamazaki, Kunihiko; Zahner, Holly; Ågerstrand, Marlene (2019). "Improving environmental risk assessments of chemicals: Steps towards evidence\_based ecotoxicology." *Environment International* 128: 210\_217. Ankley, G. T.; Coady, K. K.; Gross, M.; Holbech, H.; Levine, S. L.; Maack, G.; Williams, M (2018). "A critical review of the environmental occurrence and potential effects in aquatic vertebrates of the potent androgen receptor agonist 17beta\_trenbolone." *Environ Toxicol Chem* 37(8): 2064\_2078. Coady, K. K.; Biever, R. C.; Denslow, N. D.; Gross, M.; Guiney, P. D.; Holbech, H.; Karouna\_Renier, N. K.; Katsiadaki, I.; Krueger, H.; Levine, S. L.; Maack, G.; Williams, M.; Wolf, J. C.; Ankley, G. T. (2017). "Current limitations and recommendations to improve testing for the environmental assessment of endocrine active substances." *Integr Environ Assess Manag* 13(2): 302\_316. Hall, A. T.; Belanger, S. E.; Guiney, P. D.; Galay\_Burgos, M.; Maack, G.; Stubblefield, W.; Martin, O. (2017). "New approach to weight\_of\_evidence assessment of ecotoxicological effects in regulatory decision\_making." *Integr Environ Assess Manag* 13(4): 573\_579. Matthiessen, P.; Ankley, G. T.; Biever, R. C.; Bjerregaard, P.; Borgert, C.; Brugger, K.; Blankinship, A.; Chambers, J.; Coady, K. K.; Constantine, L.; Dang, Z.; Denslow, N. D.; Dreier, D. A.; Dungey, S.; Gray, L. E.; Gross, M.; Guiney, P. D.; Hecker, M.; Holbech, H.; Iguchi, T.; Kadlec, S.; Karouna\_Renier, N. K.; Katsiadaki, I.; Kawashima, Y.; Kloas, W.; Krueger, H.; Kumar, A.; Lagadic, L.; Leopold, A.; Levine, S. L.; Maack, G.; Marty, S.; Meador, J.; Mihaich, E.; Odum, J.; Ortego, L.; Parrott, J.; Pickford, D.; Roberts, M.; Schaeffers, C.; Schwarz, T.; Solomon, K.; Verslycke, T.; Weltje, L.; Wheeler, J. R.; Williams, M.; Wolf, J. C.; Yamazaki, K (2017). "Recommended approaches to the scientific evaluation of ecotoxicological hazards and risks of endocrine\_active substances." *Integr Environ Assess Manag* 13(2): 267\_279. Wolf, J. C. and G. Maack (2017). "Evaluating the credibility of histopathology data in environmental endocrine toxicity studies." *Environ Toxicol Chem* 36(3): 601\_611. Junghans, Marion; Andres, Sandrine; Bachmann, Jean; Kase, Robert; Korkaric, Muris; Kirst, Ingo; Maack,

Gerd; Moermond, Caroline; Smit, Els; Valsecchi, Sara; Vanhooren, Jeroen; Verbruggen, Eric; Werner, Inge; Whitehouse, Paul (2016). "To the editor." *Environmental Toxicology and Chemistry* 35(10): 2392\_2394. Sumpter, John P.; Brown, R.; Maack, G. (2014). "The challenge: Do pharmaceuticals present a risk to the environment, and what needs to be done to answer the question?" *Environmental Toxicology and Chemistry* 33(9): 1915\_1920. Frische, T.; Bachmann, J.; Frein, D.; Juffernholz, T.; Kehrler, A.; Klein, A.; Maack, G.; Stock, F.; Stolzenberg, H. C.; Thierbach, C.; Walter\_Rohde, S. (2013). "Identification, assessment and management of "endocrine disruptors" in wildlife in the EU substance legislation\_Discussion paper from the German Federal Environment Agency (UBA)." *Toxicology Letters* 223(3): 306\_309. Busch, W.; Duis, K.; Fenske, M.; Maack, G.; Legler, J.; Padilla, S.; Strahle, U.; Witters, H.; Scholz, S. (2011). "The zebrafish embryo model in toxicology and teratology, September 2\_3, 2010, Karlsruhe, Germany." *Reprod Toxicol* 31(4): 585\_588. Küster, A.; Bachmann, J.; Brandt, U.; Ebert, I.; Hickmann, S.; Klein\_Goedicke, J.; Maack, G.; Schmitz, S.; Thumm, E.; Rechenberg, B. (2009). "Regulatory demands on data quality for the environmental risk assessment of pharmaceuticals." *Regul Toxicol Pharmacol* 55(3): 276\_280. Sebire, M.; Katsiadaki, I.; Taylor, N. G.; Maack, G.; Tyler, C. R. (2011). "Short\_term exposure to a treated sewage effluent alters reproductive behaviour in the three\_spined stickleback (*Gasterosteus aculeatus*)." *Aquat Toxicol* 105(1\_2): 78\_88. Thorpe, K. L.; Maack, G.; Benstead, R.; Tyler, C. R. (2009). "Estrogenic Wastewater Treatment Works Effluents Reduce Egg Production in Fish." *Environ Sci Technol* 43(8): 2976\_2982. Thorpe, K. L.; Benstead, R.; Eccles, P.; Maack, G.; Williams, T.; Tyler, C. R. (2008). "A practicable laboratory flow\_through exposure system for assessing the health effects of effluents in fish." *Aquat Toxicol* 88(3): 164\_172. Filby, Amy L.; Thorpe, Karen L.; Maack, Gerd; Tyler, Charles R. (2007). "Gene expression profiles revealing the mechanisms of anti\_androgen\_ and estrogen\_induced feminization in fish." *Aquat Toxicol* 81(2): 219\_231. Schafers, C.; Teigeler, M.; Wenzel, A.; Maack, G.; Fenske, M.; Segner, H. (2007). "Concentration\_ and time\_dependent effects of the synthetic estrogen, 17\_alpha\_ethinylestradiol, on reproductive capabilities of the zebrafish, *Danio rerio*." *Journal of Toxicology and Environmental Health\_Part A\_Current Issues* 70(9\_10): 768\_779. Fenske, M.; Maack, G.; Schafers, C.; Segner, H. (2005). "An environmentally relevant concentration of estrogen induces arrest of male gonad development in zebrafish, *Danio rerio*." *Environ Toxicol Chem* 24(5): 1088\_1098. Maack, G. and H. Segner (2004). "Life\_stage\_dependent sensitivity of zebrafish (*Danio rerio*) to estrogen exposure." *Comp Biochem Physiol C Toxicol Pharmacol* 139(1\_3): 47\_55. Nash, J. P.; Kime, D. E.; van der Ven, L. T. M.; Wester, P. W.; Brion, F.; Maack, G.; Stahlschmidt\_Allner, P.; Tyler, C. R. (2004). "Long\_term exposure to environmental concentrations of the pharmaceutical ethinylestradiol causes reproductive failure in fish." *Environmental Health Perspectives* 112(17): 1725\_1733. Maack, G.; Segner, H.; Tyler, C. R. (2003). "Ontogeny of sexual differentiation in different strains of zebrafish (*Danio rerio*)." *Fish Physiology and Biochemistry* 28(1\_4): 125\_128. Maack, G. and H. Segner (2003). "Morphological development of the gonads in zebrafish." *Journal of Fish Biology* 62(4): 895\_906. Segner, H.; Caroll, K.; Fenske, M.; Janssen, C. R.; Maack, G.; Pascoe, D.; Schafers, C.; Vandenberg, G. F.; Watts, M.; Wenzel, A. (2003). "Identification of endocrine\_disrupting effects in aquatic vertebrates and invertebrates: report from the European IDEA project." *Ecotoxicol Environ Saf* 54(3): 302\_314. Tyler, C. R.; Ball, J.; Maack, G.; Paull, G.; Santos, E. M. (2002). "Endocrine disruption in vertebrate wildlife \_ Today's story." *Proceedings of the 21St Conference of European Comparative Endocrinologists*: 55\_61. Maack, G. and M. R. George (1999). "Contributions to the reproductive biology of *Encrasicholina punctifer* Fowler, 1938 (Engraulidae) from West Sumatra, Indonesia." *Fisheries Research* 44(2): 113\_120.

## Projects

## Memberships

Society of Environmental Toxicology and Chemistry (SETAC)

## Other Relevant Information