

NRP 50 "Endocrine Disruptors"

List of Scientific Publications

Role of environmental endocrine disruptors in the aetiology of Intrauterine Growth Retardation and its later consequences such as disorders in brain development and adult-onset obesity.
4050-108713, Aubert Michel L.

None as of Februaury 2008

Endocrine disruptors and breast carcinogenesis: A new mouse model to assess estrogen receptor-dependent and -independent effects in vivo.
4050-104506, Briskén Cathrin

Boulay A., Breuleux M., Stephan C., Fux C., Briskén C., Fiche M., Wartmann M., Stumm M., Lane H.A., Hynes N.E. The Ret receptor tyrosine kinase pathway functionally interacts with the ER α pathway in breast cancer. *Cancer Res.* 2008 *in press*

Duss S., André S., Nicoluz A.L., Fiche M., Bonnefoi H., Briskén C., Iggo R. An estrogen-dependent model of breast cancer created by transformation of normal human mammary epithelial cells. *Breast Cancer Res.* 2007;9(3): R38.

Ciarloni L., Mallepell S., Briskén C. Amphiregulin is an essential mediator of ER α function in mammary gland development. *Proc. Natl. Acad. Sci. USA*, 2007;104(13):5455-60.
Reviewed in: Lamarca HL, Rosen JM. Estrogen regulation of mammary gland development and breast cancer: amphiregulin takes center stage. *Breast Cancer Res.* 2007 Jul 20;9(4):304.

Ayyanan, A., Civenni G., Ciarloni L., Morel C., Lefort K., Mandinova A., Raffoul W., Fiche M., Dotto G. P., Briskén C. Increased Wnt signaling triggers oncogenic conversion of human mammary epithelial cells by a Notch-dependent mechanism mammary gland development. *Proc. Natl. Acad. Sci. USA*. 2006;103(10):3799-3804.
Reviewed in: Collu GM, Brennan K. Cooperation between Wnt and Notch signaling in human breast cancer. *Breast Cancer Res.* 2007 Jul 20;9(3):105.

Mallepell S., Krust A., Chambon P., Briskén C. Paracrine signaling through the epithelial Estrogen Receptor α is required for proliferation and morphogenesis in the mammary gland. *Proc. Natl. Acad. Sci. USA*. 2006; 103(7):2196-2201.

Environmental exposure to estrogenic mycotoxins.
4050-104376, Bucheli Thomas

Bucheli T.D., Wettstein F.E., Hartmann N., Erbs M., Vogelgsang S., Forrer H.R., Schwarzenbach R.P. Fusarium mycotoxins: overlooked aquatic micropollutants? *J Agric Food Chem.* 2008 Feb 13;56(3):1029-34.

Erbs M., Hartmann N., Bucheli T.D. Determination of the cross-reactivities for α -zearalenol, β -zearalenol, zearalanone, α -zearalanol and β -zearalanol on three commercial immunoaffinity columns targeting zearalenone (technical communication). *J. AOAC Intern.* 2007;40:1197-1202.

Erbs M., Hörger C.C., Hartmann N., Bucheli T.D. Quantification of six phytoestrogens at the ng/L level in aqueous environmental samples using ¹³C₃-labelled internal standards. *J. Agric. Food Chem.* 2007;55:8339-8345.

Hartmann N., Erbs M., Wettstein F.E., Schwarzenbach R.P., Bucheli T.D. Quantification of estrogenic mycotoxins at the ng/L level in aqueous environmental samples using deuterated internal standards. *J. Chromatogr. A* 2007;1138:132-140.

Mechanisms of action of (xeno)estrogens on the early development and differentiation of brain and gonads in zebrafish (XEBRA).

4050-066552, Eggen Rik I.L.

Cheshenko K., Pakdel F., Segner H., Kah O., Eggen R.I.L. Interference of endocrine disrupting chemicals with aromatase CYP19 expression or activity, and consequences for reproduction of teleost fish. *General and Comparative Endocrinology* 2008;11:31-62.

Cheshenko K., Brion F., Le Page Y., Pakdel F., Kah O., Segner H. and Eggen R.I.L. Expression of zebrafish aromatase cyp19a and cyp19b genes in response to the ligands of estrogen receptor and aryl hydrocarbon receptor. *Toxicological sciences* 2007;96:255-267.

Hutchinson T., Ankley G.T., Segner H., Tyler C.R. Screening and testing for endocrine disruption in fish – biomarkers as „signposts“ not „traffic lights“ in risk assessment. *Environmental Health Perspectives* 2006;114, supplement 1: 106-114.

Kallivretaki E., Eggen R., Neuhauss S., Kah O. and Segner H. The zebrafish, brain-specific, aromatase cyp19a2 is neither expressed nor distributed in a sexually dimorphic manner during sexual differentiation. *Developmental Dynamics* 2007;236:3155-3166.

Kallivretaki E., Eggen R., Neuhauss S., Alberti M., Kausch U., Segner H. Aromatase in Zebrafish: a potential target for endocrine disrupting chemicals. *Marine Environmental Research* 2006;62:187-190.

Hormonal activity of UV screens in aquatic ecosystems (HAUS).

4050-066554, Fent Karl

Weisbrod CJ, Kunz PY, Zenker AK, Fent K. Effects of the UV filter benzophenone-2 on reproduction in fish. *Toxicol Appl Pharmacol.* 2007;225(3):255-66.

Kunz P.Y. and Fent K. Estrogenic activities of UV filter mixtures. *Toxicology and Applied Pharmacology.* 2006;217(1):86-99.

Kunz P.Y. and Fent K. Multiple hormonal activities of UV filters and comparison of *in vivo* and *in vitro* estrogenic activity of ethyl 4-aminobenzoate in fish. *Aquatic Toxicology.* 2006;79(4):305-324.

Kunz P.Y., Galicia H.F. and Fent K. Comparison of *in vitro* and *in vivo* estrogenic activity of UV filters in fish. *Toxicological Sciences.* 2006;90(2):349-361.

Kunz P.Y., Gries T. and Fent K. The ultraviolet filter 3-benzylidene camphor adversely affects reproduction in fathead minnow (*Pimephales promelas*). *Toxicological Sciences.* 2006;93(2):311-321.

Fent K., Kunz P.Y., Wolf M., Schmutz H.R. and Gyax D. Chemical Analysis and Ecotoxicological Effects of UV Absorbing Organic Chemicals in Aquatic Environments. *Chimia.* 2004;58:325-327.

Kunz P.Y., Galicia H.F. and Fent K. Assessment of hormonal activity of UV filters in tadpoles of frog *Xenopus laevis* at environmental concentrations. *Marine Environmental Research.* 2004;58:431-435.

Ecological risk assessment of UV filters

4050-111393, Fent Karl

None as of February 2008

Integrative mass flow model for endocrine disruptors in Switzerland – model development, risk assessment and risk management.

4050-066562 und 405040-111392, Gälli René

None as of February 2008

Endocrine disrupting chemicals in the air – linking emission processes and transport phenomena with effects in wildlife and humans (ENDAIR).

4050-104378, Gerecke Andreas C.

Wenger D., Gerecke A.C., Heeb N.V., Zennegg M., Kohler M., Naegeli H. and Zenobi R. Secondary Effects of Catalytic Diesel Particulate Filters: Reduced Aryl Hydrocarbon Receptor-Mediated Activity of the Exhaust Gas. *Environ. Sci. Technol.* 2008, 42 (8):2992–2998.

Wenger D., Gerecke A.C., Heeb N.V., Naegeli H. and Zenobi R. Catalytic diesel particulate filters reduce the *in vitro* estrogenic activity of diesel exhaust. *Anal Bioanal Chem.* 2008 Apr;390(8):2021-9.

Gerecke A.C. Brominated Flame Retardants in Settled Dust of a Commercial Aircraft. *Proceedings of BFR* 2007, Amsterdam.

Wenger D., Gerecke A.C., Heeb N.V. and Zenobi R. Estrogenic and Dioxin-like Activity in Diesel Exhaust. *Organohalogen Compounds* 2006;68:1295-1298.

Gerecke A.C. Photodegradation of decabromodiphenyl ether: kinetics, reaction quantum yield and penetration of light into kaolinite. *Organohalogen Compounds* 2006;68:1978-1982.

Covaci A., Gerecke A.C., Law R.J., Voorspoels S., Kohler M., Heeb N.V., Leslie H., Allchin C.R. and deBoer J. Hexabromocyclododecanes (HBCDs) in the Environment and Humans: A Review. *Environ. Sci. Technol.* 2006; 40:3679-3688.

Drop of male fertility in various geographic regions of Switzerland: Investigation of the critical parameters usable for prospective repeated evaluations.

4050-066564, Germond Marc

None as of February 2008

Evaluation of Aquatic Environmental Estrogens with Passive Sampling - EPSA.

4050-111386, Giger Walter

Vermeirssen E.L.M., Asmin J., Escher B.I., Kwon J.-H., Steimen I., and Hollender J. The role of hydrodynamics, matrix and sampling duration in passive sampling of polar compounds with Empore™ SDB-RPS disks. *Journal of Environmental Monitoring* 2008;10:119-128.

Endocrine disruption in Swiss brown trout

4050-066568, Holm Patricia

Borsuk M.E., Schubert S., Peter A., Burkhardt-Holm P. Assessing the population-level risk of endocrine disruptors under conditions of uncertainty and variability, extended abstract, 2007, 1-6.

Vermeirssen E.L.M., Suter M.J.F., Burkhardt-Holm P. Estrogenicity patterns in the Swiss midland river Lutzelmurg in relation to treated domestic sewage effluent discharges and hydrology. *Environmental Toxicology and Chemistry* 2006;25:2413-2422.

Burki R., Vermeirssen E.L.M., Koerner O., Joris C., Burkhardt-Holm P., Segner H. Assessment of estrogenic exposure in brown trout (*Salmo trutta*) in a Swiss midland river: Integrated analysis of passive samplers, wild and caged fish, and vitellogenin mRNA and protein. *Environmental Toxicology and Chemistry* 2006;25:2077-2086.

Burkhardt-Holm P., Giger W., Guttinger W., Ochsenbein U., Peter A., Scheurer K., Segner H., Staub E., Suter M.J.F.; Where have all the fish gone? The reasons why fish catches in Swiss rivers are declining. *Environmental Science and Technology* 2005;39:441A-447A.

Vermeirssen E.L.M., Burki R., Joris C., Peter A., Segner H., Suter M.J.F., Burkhardt-Holm P. Characterisation of the estrogenicity of Swiss midland rivers using a recombinant yeast bioassay and plasma vitellogenin concentrations in feral male brown trout. *Environ Toxicol Chem* 2005;24:2226-2233.

Vermeirssen E.L.M., Korner O., Schönenberger R., Suter M.J.F., Burkhardt-Holm P. Characterization of environmental estrogens in river water using a three pronged approach: Active and passive water sampling and the analysis of accumulated estrogens in the bile of caged fish. *Environmental Science and Technology* 2005;39: 8191-8198.

Phytoestrogens in food, food complements and medicinal plants: content, pharmacological relevance and metabolic profile

4050-066587, Hostettmann Kurt

Polasek J., Ferreira Queiroz E., Hostettmann K. On-line Identification of phenolic compounds of *Trifolium* species using LC/UV/MS combined with post-column derivatisation. *Phytochem Anal.* 2007 Jan;18(1):13-23.

Polasek J., Hostettmann K. The importance of Phytoestrogens in Food Supplements and Phytopharmaceuticals. *Chimia* 2005;59(6):331-335.

Terreaux C., Polasek J., Hostettmann K. Plant Constituents with Hormonal Effects. *Current Organic Chemistry* 2003;54:883-889.

Phenolic substances with estrogenic disruptor potential as contaminants in the aquatic environment (PHENCON)

Phenolic and brominated contaminants in wastewaters and in the aquatic environment (PHEBRO).

4050-066566, Kohler Hans-Peter / Giger Walter

Gabriel F.L.P., Cyris M., Giger W., Kohler H.P.E. ipso-Substitution: A general mechanistic principle to cleave α -quaternary alkylphenols and bisphenol A. *Chem Biodivers*. 2007 Sep;4(9):2123-37.

Gabriel F.L.P., Cyris M., Jonkers N., Giger W., Guenther K., Kohler H.P.E. Elucidation of the ipso-substitution mechanism for side-chain cleavage of α -quaternary 4-nonylphenols and 4-t-butoxyphenol in *Sphingobium xenophagum* Bayram. *Appl Environ Microbiol*. 2007;73:3320-3326.

Hartmann P.C., Burkhardt-Holm P., Giger W. Occurrence of polybrominated diphenyl ethers (PBDEs) in brown trout bile and liver from Swiss rivers. *Environ Poll*. 2007;146:107-113.

Voutsas D., Hartmann P.C., Schaffner Ch., Giger W. Benzotriazoles, Alkylphenols and Bisphenol A in Municipal Wastewaters and in the Glatt River, Switzerland. *Environ Sci Pollut Res*. 2006;13:333-341.

Gerecke A.C., Giger W., Hartmann P.C., Heeb N.V., Kohler H.P.E., Schmid P., Zennegg M., Kohler M. Anaerobic degradation of brominated flame retardants in sewage sludge. *Chemosphere* 2006;64:311-317.

Gerecke A.C., Hartmann P.C., Heeb N.V., Kohler H.P.E., Giger W., Schmid P., Zennegg M., Kohler M. Anaerobic degradation of decabromodiphenyl ether. *Environ Sci Technol*. 2005;39:1078-1083.

Gabriel F.L.P., Heidlberger A., Rentsch D., Giger W., Guenther K., Kohler H.P.E. A novel metabolic pathway for degradation of 4-nonylphenol environmental contaminants by *Sphingomonas xenophaga* Bayram. Ipso-hydroxylation and intramolecular rearrangement. *J Biol Chem*. 2005;280:15526-15533.

Johnson A.C., Aerni H.R., Gerritsen A., Gibert M., Giger W., Hylland K., Jurgens M., Nakari T., Pickering A., Suter M.J.F., Svenson A., Wettstein F.E. Comparing steroid estrogen, and nonylphenol content across a range of European sewage plants with different treatment and management practices. *Water Res* 2005;39:47-58.

Gabriel F.L.P., Giger W., Guenther K., Kohler H.P.E. Differential degradation of nonylphenol isomers by *Sphingomonas xenophaga* Bayram. *Appl Environ Microbiol*. 2005;71:1123-1129.

Hecht S.A., Gunnarsson J.S., Boese B.L., Lamberson J.O., Schaffner C., Giger W., Jepson P.C. Influences of sedimentary organic matter quality on the bioaccumulation of 4-nonylphenol by estuarine amphipods. *Environ Toxicol Chem*. 2004;23:865-873.

Aerni H.R., Kobler B., Rutishauser B.V., Wettstein F.E., Fischer R., Giger W., Hungerbühler A., Marazuela M.D., Peter A., Schönenberger R., Vögeli A.C., Suter M.J.F., Eggen R.I.L. Combined biological and chemical assessment of estrogenic activities in wastewater treatment plant effluents. *Anal Bioanal Chem* 2004;378:688-696.

Brominated flame retardants and their transformation products: Occurrence in the environment and human exposure to these endocrine active components (FLARE)

Brominated flame retardants and other endocrine disrupting chemicals in the ecosystem of Thunersee - environmental fate and correlation to biological effects (FLEET).

4050-066536, Kohler Martin

Kohler M., Zennegg M., Bogdal C., Gerecke A.C., Schmid P., Heeb N.V., Sturm, M., Vonmont H., Kohler H.-P. and Giger W. Temporal Trends, Congener Patterns, and Sources of Octa-, Nona-, and Decabromodiphenyl Ethers (PBDE) and Hexabromocyclododecanes (HBCD) in Swiss Lake Sediments. *Environ. Sci. Technol*. 2008, *in press*, doi: 10.1021/es702586r

Bogdal C., Kohler M., Schmid P., Scheringer M. and Hungerbühler K. Partitioning of Polybrominated Diphenyl Ethers between Air, Water, Sediment and Fish in Lake Thun (Switzerland). *Organohalogen Compounds* 2007;69:441-444.

Heeb N.V., Schweizer W.B., Mattrel P., Haag R., Gerecke A.C., Kohler M., Schmid P., Zennegg M. and Wolfensberger M. Solid-state conformations and absolute configurations of (+) and (-) α -, β -, and γ -hexabromocyclododecanes (HBCDs). *Chemosphere* 2007;68:940-950.

Zennegg M., Kohler M., Hartmann P.C., Sturm M., Gujer E., Schmid P., Gerecke A.C., Heeb N.V., Kohler H.-P. and Giger W. The historical record of PCB and PCDD/F deposition at Greifensee, a lake of the Swiss plateau, between 1848 and 1999. *Chemosphere* 2007;67:1754-1761.

Schmid P., Kohler M., Gujer E., Zennegg M. and Lanfranchi M. Persistent organic pollutants, brominated flame retardants and synthetic musks in fish from remote alpine lakes in Switzerland. *Chemosphere* 2007;67(9):S16-21.

Zennegg M. and Schmid P. PCDD/F, PCB, dioxin-like PCB, and PBDE in fish oil used as dietary supplement in Switzerland. *Organohalogen Compounds* 2006;68:1967-1970.

Bogdal C., Kohler M., Schmid P., Sturm M., Grieder E., Scheringer M. and Hungerbühler K. Polychlorinated naphthalenes: congener specific analysis and source identification in a dated sediment core from Lake Thun, Switzerland. *Organohalogen Compounds* 2006;68:300-303.

Gerecke A.C., Giger W., Hartmann P.C., Heeb N.V., Kohler H.-P., Schmid P., Zennegg M. and Kohler M. Anaerobic degradation of brominated flame retardants in sewage sludge. *Chemosphere* 2006;64:311-317.

Law R.J., Kohler M., Heeb N.V., Gerecke A.C., Schmid P., Voorspoels S., Covaci A., Becher G., Janak K. and Thomsen C. Hexabromocyclododecane challenges scientists and regulators. *Environ. Sci. Technol.* 2005;39:281A-287A.

Heeb N.V., Schweizer W.B., Kohler M. and Gerecke A.C. Structure elucidation of hexabromocyclododecanes--a class of compounds with a complex stereochemistry. *Chemosphere* 2005;61:65-73.

Gerecke A.C., Hartmann P.C., Heeb N.V., Kohler H.P., Giger W., Schmid P., Zennegg M. and Kohler M. Anaerobic Degradation of Decabromodiphenyl Ether. *Environ. Sci. Technol.* 2005;39:1078-1083.

Schmid P., Gujer E., Zennegg M. and Lanfranchi M. POPs and other persistent organic compounds in fish from remote alpine lakes in the Grisons, Switzerland. *Organohalogen Compounds* 2004;66:1716-1719.

Geyer H.J., Schramm K.-W., Darnerud P.O., Aune M., Feicht E.A., Fried K.W., Henkelmann B., Lenoir D., Schmid P. and McDonald T. A. Terminal elimination half-lives of the brominated flame retardants TBBPA, HBCD, and lower brominated PBDEs in humans. *Organohalogen Compounds* 2004;66:3820-3825.

Schlumpf M., Schmid P., Durrer S., Conscience M., Maerkel K., Henseler M., Gruetter M., Herzog I., Reolon S. and Ceccatelli R. Endocrine activity and developmental toxicity of cosmetic UV filters - an update. *Toxicology* 2004;205:113-122.

Zennegg M., Kohler M., Hartmann P., Sturm M., Gujer E., Schmid P., Gerecke A.C., Heeb N.V., Kohler H.-P. and Giger W. The historical record of PCB and PCDD/F deposition at Greifensee between 1848 and 1999. *Organohalogen Compounds* 2004;66:1363-1366.

Zennegg M., Kohler M., Gerecke A.C. and Schmid P. Polybrominated diphenyl ethers in whitefish from Swiss lakes and farmed rainbow trout. *Chemosphere* 2003;51:545-553.

Schmid P., Kohler M., Gerecke A.C., Gujer E., Zennegg M. and Wolfensberger M. Old sins throw long shadows - old and emerging persistent organic pollutants in the Swiss environment. *Chimia* 2003;57:509-513.

Kohler M., Zennegg M., Gerecke A.C., Schmid P. and Heeb N. Increasing concentrations of decabromodiphenyl ether (DecaBDE) in Swiss sewage sludge since 1993. *Organohalogen Compounds* 2003;61:123-126.

Gerecke A.C., Kohler M., Zennegg M., Schmid P. and Heeb N. Detection of α -isomer dominated HBCD (hexabromocyclododecane) in Swiss fish at levels comparables to PBDEs (polybrominated diphenyl ethers). *Organohalogen Compounds* 2003;61:155-158.

Dynamic substance flow analysis model for selected brominated flame retardants as a basis for decision making on risk reduction measures (FABRO).
4050-111389, Morf Leo

Buser A.M., Morf L.S., Taverna R., Bader H.P., Scheidegger R. Temporal Behaviour of the Anthropogenic Metabolism of Selected Brominated Flame Retardants: Emissions to the Environment. *Fourth International Workshop on Brominated Flame Retardants*, Amsterdam, 2007.

Morf L.S., Buser A.M., Taverna R., Bader H.P., Scheidegger R. Efficient Measures in Waste Management as a Key Factor to Reduce Emissions of BFRs: Case Study Results for DecaBDE in Switzerland and Global Implications. *Organohalogen Compounds* 2007;69:916-919.

Buser A.M., Morf L.S., Taverna R., Bader H.P., Scheidegger R. Comparison of BDE-209 Concentrations Modelled in a Dynamic Substance Flow Analysis for Switzerland and Field Data. *Organohalogen Compounds* 2007;69:2748-2751.

Morf L.S., Buser A.M., Taverna R. Selected Brominated Flame Retardants: Sources, Sinks in the Anthroposphere and Emissions to the Environment. *Organohalogen Compounds* 2006;68:507-510.

Biological activity of complex mixtures of endocrine disruptors.

4050-066572, Naegeli Hanspeter

Dip R., Lenz S., Antignac J.-P., Le Bizec B., Gmuender H., and Naegeli H. Global gene expression profiles induced by phytoestrogens in human breast cancer cells. *Endocr.-Rel. Cancer*, 2008; in press.

Wenger D., Gerecke A.C., Heeb N.V., Zennegg M., Kohler M., Naegeli H. and Zenobi R. Secondary Effects of Catalytic Diesel Particulate Filters: Reduced Emissions of Aryl Hydrocarbon Receptor Agonists. *Environ. Sci. Technol.*, 2008; in press.

Buterin T., Koch C., and Naegeli H. Convergent transcriptional profiles induced by endogenous estrogen and distinct xenoestrogens in breast cancer cells. *Carcinogenesis* 2006;27:1567-1578.

Buterin T., Koch C., and Naegeli H. Potential application of gene expression fingerprinting for food safety screening. *Anal. Chem. Acta* 2005;529:33-39.

Prenatal exposure to endocrine disrupting chemicals: Effects on the male urogenital system.

4050-104375, Nef Serge

Alonso-Magdalena P., Ropero A.B., Carrera M.P., Cederroth C.R., Baquié M., Gauthier B.R., Nef S., Stefani E., Nadal A. Pancreatic insulin content regulation by the estrogen receptor ER alpha. *PLoS ONE*. 2008 Apr 30;3(4):e2069.

Cederroth C.R., Vinciguerra M., Gjinovci A., Kühne F., Klein M., Cederroth M., Caille D., Suter M., Neumann D., James RW., Doerge DR., Wallimann T., Meda P., Foti M., Rohner-Jeanrenaud F., Vassalli J.-D., Nef S. Dietary phytoestrogens activate AMP-activated protein kinase with improvement in lipid and glucose metabolism. *Diabetes*. 2008 May;57(5):1176-85. Epub 2008 Apr 16.

Cederroth C.R., Vinciguerra M., Kühne F., Madani R., Doerge D.R., Visser T.J., Foti M., Rohner-Jeanrenaud F., Vassalli J.-D., Nef S. A phytoestrogen-rich diet increases energy expenditure and decreases adiposity in mice. *Environ Health Perspect*. 2007 Oct;115(10):1467-73.

Cederroth C.R., Schaad O., Descombes P., Chambon P., Vassalli J.-D., Nef S. Estrogen receptor alpha is a major contributor to estrogen-mediated fetal testis dysgenesis and cryptorchidism. *Endocrinology*. 2007 Nov;148(11):5507-19. Epub 2007 Aug 2.

Activation of hormonal receptors by environmental chemicals.

4050-066575, Odermatt Alex

Atanasov A.G., Dzykanchuk A.A., Schweizer R.A., Nashev L.G., Maurer E.M. and Odermatt A. Coffee inhibits the reactivation of glucocorticoids by 11 β -Hydroxysteroid Dehydrogenase Type 1: A glucocorticoid connection in the anti-diabetic action of coffee? *FEBS Lett*. 2006;580:4081-4085.

Koch M.A., Schuffenhauer A., Scheck M., Wetzel S., Casaulta M., Odermatt A., Ertl P., and Waldmann H. Charting Biologically Relevant Chemical Space: A Structural Classification of Natural Products (SCONP). *Proc. Natl. Acad. Sci. U.S.A.* 2005;102:17272-17277.

Atanasov A.G., Nashev L.G., Tam S., Baker M.E., and Odermatt A. Organotins Disrupt the 11 β -Hydroxysteroid Dehydrogenase Type 2-dependent Local Inactivation of Glucocorticoids. *Environ. Health Persp*. 2005;113:1600-1606.

Arampatzis S., Kadereit B., Schuster D., Balazs Z., Schweizer R.A.S., Frey F.J., Langer T., and Odermatt A. Comparative Enzymology of 11 β -Hydroxysteroid Dehydrogenase Type 1 from Six Species. *J. Mol. Endocrinol*. 2005;35:89-101.

Schweizer R.A.S., Zürcher M., Balazs Z., Dick B., and Odermatt A. Rapid Hepatic Metabolism of 7-Ketocholesterol by 11 β -Hydroxysteroid Dehydrogenase Type 1. *J. Biol. Chem*. 2004;279:18415-18424.

Rebuffat A.G., Nawrocki A. R., Tam S., Baker M.E., Frey B.M., Frey F.J., and Odermatt, A. The 11-ketosteroid 11-Dehydrodexamethasone is a Glucocorticoid Receptor Agonist. *Mol. Cell. Endocrinol*. 2004;214:27-37.

Odermatt A. Cortisosteroid-Dependent Hypertension: Environmental Influences, *Swiss. Med. Wkly*. 2004;134:4-13.

Schweizer R.A.S., Atanasov G.A., Frey B.M., and Odermatt A. A Rapid Screening Assay for Inhibitors of 11 β -Hydroxysteroid Dehydrogenases (11 β -HSD): Flavanone Selectively Inhibits 11 β -HSD1 Reductase Activity. *Mol. Cell. Endocrinol*. 2003;212:41-49.

Atanasov A.G., Tam S., Roecken J.M., Baker M.E., and Odermatt A. Inhibition of 11 β -Hydroxysteroid Dehydrogenase Type 2 by Dithiocarbamates. *Biochem. Biophys. Res. Commun*. 2003;308:257-262.

Signaling of estrogenic endocrine disruptors through membrane-associated receptors.

4050-106987, Picard Didier

None as of February 2008

Are organisational effects of estrogens on sexual differentiation, development and growth of fish mediated via the Insulin-like growth factor I (IGF-I) system?

4050-066580, Reinecke Manfred

Moret O., Berishvili G., Shved N., Eppler E., D'Cotta H., Baroiller J-F., Reinecke M. Insulin-like growth factor I (IGF-I) in the hypothalamic-pituitary-gonadal (HPG) axis during development of male and female tilapia, *Oreochromis niloticus*. *Cybiurn, International Journal of Ichthyology* 2008, in press

Shved N., Berishvili G., D'Cotta H., Baroiller J-F., Segner H., Eppler E., Reinecke M. Ethinylestradiol (EE2) differentially interferes with insulin-like growth factor-I (IGF-I) in liver and extrahepatic sites during development of male and female bony fish. *J Endocrinol.* 2007;195:513-523.

Eppler E., Shved N., Moret O., Reinecke M. IGF-I is distinctly located in the bony fish pituitary as revealed for *Oreochromis niloticus*, the Nile tilapia, using real-time RT-PCR, in situ hybridisation and immunohistochemistry. *Gen Comp Endocrinol.* 2007;150:87-95.

Berishvili G., Shved N., Eppler E., Clotà F., Baroiller J-F., Reinecke M. Organ-specific expression of IGF-I during early development of bony fish as revealed in the tilapia, *Oreochromis niloticus*, by in situ hybridisation and immunohistochemistry: Indication for the particular importance of local IGF-I. *Cell Tissue Res.* 2006;325:287-301.

Segner H., Eppler E., Reinecke M. The impact of environmental hormonally active substances on the endocrine and immune systems of fish. In: *Fish Endocrinology* (Eds. Reinecke M., Zaccone G., Kapoor B.G.), Science Publishers, Enfield, Jersey, Plymouth, 2006;809-865.

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