



Malin Charlotta Celander

Born in Gothenburg, January 24, 1962

Department of Biological and Environmental Sciences (BioEnv),
University of Gothenburg (GU).

Professor 2005 in Zoophysiology, GU (Current position)

Docent 2000 in Zoophysiology, GU

Assistant professor/Associate professor: 1998-2004 in Experimental Biology

Postdoc 1994-1997, Woods Hole Oceanographic Institution, MA, USA

PhD 1994 in Zoophysiology, GU

BSc 1987 in Chemistry, GU

Honors

Honor 2003 from Konung Carl XVI Gustaf's 50-Årsfond.

Member of Kungliga Vetenskaps- och Vitterhetssamhället i Göteborg (KVVS).

RESEARCH ETHICS INVESTIGATIONS & ACTIVITIES

2024-2026: Member of the National Ethics Review Appeals Board, Sweden.

Since 2006 I have been involved in investigations of matters of suspected misconduct in research and/or deviation of good research practice. I have led over a dozen investigations at GU and one at the Karolinska Institute (KI) upon an agreement between GU and KI. Each semester I teach student at master and PhD level about Research Ethics and Researcher's Ethics.

2020-present Chairman of the council for examining deviations from good research practice, GU

2016-present External member of the council for matters concerning ethics and scientific misconduct at Chalmers Technical University.

2006-2020: Member of council for matters concerning ethics and scientific misconduct at GU, deputy chairman from 2016, chairman from 2017.

PhD SUPERVISION, EXAMINATION & OPPONENT ASSIGNMENTS

Advisor for PhD students

Charlotte Alvord, planned licentiate 2024

Johanna Gräns, PhD 2015

Britt Wassmur, PhD 2013

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Linda Hasselberg, PhD 2004

Tove Hegelund-Myrbäck, PhD 2003

Deputy Advisor for PhD students

Leon Green, PhD 2020

Hanna Styf, PhD 2015

Sara Aspengren, PhD 2006

Mentor for PhD student

2009-2010 Mentor for a PhD student in the GENECO Research School, University of Lund

Examinator for PhD students

2015-present: Examiner for the PhD program at department of BioEnv, GU.

Opponent at PhD Defenses

2023 Örebro University, Sweden

2020 Norwegian University of Life Sciences, Oslo, Norway

2019 Norwegian University of Life Sciences, Oslo, Norway

2017 University of Tromsø, Norway

2016 Norwegian University of Life Sciences, Oslo, Norway

2016 University of Stockholm

2015 Burapha University, Thailand

2013 Uppsala University, Sweden

2011 Uppsala University, Sweden

2010 University of Bergen, Norway

2009 University of Barcelona, Spain

2007 Norwegian University of Science & Technology

Member of PhD-Thesis Evaluation Committees

Member of >30 PhD Committees in Biology, Medicine, Chemistry and Mathematics at GU, Chalmers, Lund University, Stockholm University, Umeå University, Uppsala University and Örebro University.

HOST & COMMISSIONS OF TRUST ASSIGNMENTS FOR RESEARCH

Advisor for postdoc

Dr. Maja Edenius 2020-2022

Host for Guest Investigators

2004 and 2010: Dr Praparsiri Barnette, Burapha University, Thailand

2012-2013 Associate Professor Joanna Wilson, McMaster University, Canada

2012-2013 Dr. Andrew G. McArthur, Hamilton, Canada

2023 Dr Flavia Bieczynski, Universidad Nacional del Comahue (UNCo), Neuquén, Argentina

Host for Honorary Doctor at University of Gothenburg

2008 Professor John J. Stegeman, Woods Hole Oceanographic Institution, USA

Editor for Scientific Journals

Review Editor for *Aquatic Toxicology* (from 2009-2019)

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Editor for *Environmental Toxicology & Chemistry* (2006-2014)

Member of Editorial Boards for Scientific Journals

The PRIMO Issues of *Marine Environmental Research*
Aquatic Toxicology (2004-2009)
Environmental Toxicology & Chemistry (1997-1999)

Member of Advisory Board

Member of International Scientific Board for Pollutant Responses in Marine Organisms.

Member of Grant Evaluation Panels

2012: Member of Research Council of Norway review panel: NORUSS
2003-2006: Member of FORMAS review panel: Marine Environment; Chairman 2005-06

Co-Chairman of a SETAC Pellston Workshop

SETAC: Predictive Ecotoxicology Workshop, 2009, Oregon, USA

Evaluator for other Universities

University of California USA; McMaster University, Canada; North Carolina State University, USA; University of Stirling, UK; Woods Hole Oceanographic Institution, USA; RMIT-University, Australia; Örebro University, University of Skövde; Uppsala University; Michigan State University, USA; Norwegian University of Science & Technology, Norway

TEACHING & EDUCATION ASSIGNMENTS

Advisor for Undergraduate Honor Thesis Students

Advisor for 40+ BSc/Master thesis students in Zoophysiology, Pharmacy, Biochemistry and Biotechnology.

Teaching and Course Convener in Biology, Toxicology and Scientific Writing

Teaching as lecturer for undergraduate students at department of BioEnv (formerly department of Zoology) since 1998 including course convener for five courses.

Teaching as lecturer and course convener for postgraduate students (doktorandkurser) in ecotoxicology and scientific writing at department of BioEnv and Faculty of Science at GU.

Chairman/Coordinator of PhD Program

2015-2018 Chairman (Studierektor) for PhD program at department of Biological and Environmental Sciences, GU.

Team-leader in Life Science

2008-2014: Theme-leader for postgraduate education programs in life science at Faculty of Science, GU. http://www.science.gu.se/forskning/Forskarutbildning/tema/life_science/

Chairman/Coordinator of a Graduate School

2004-2005: Chairman/Coordinator for the graduate School of Bioscience at GU (Studierektor för Biovetenskapliga Forskarskolan) hosted by Sahlgrenska Academy GU, Faculty of Science GU and Chalmers Technical University.

Chairman/Coordinator of an Educational Program

2003-2006: Chairman/Coordinator for BSc Program for Dispensing Pharmacist at GU
(Programrådsordförande/Koordinator för Receptarieprogrammet vid GU)

UNIVERSITY ADMINISTRATION ASSIGNMENTS

Member of Boards and Committees

2022-2024: Member of the appointment board at Faculty of Science, GU
2009-2013: Member of Department of Mathematical Science, GU och Chalmers
2009-2013 Member of the Board, Faculty of Science, GU
2006-2009: Member of the Board, Department of Zoology, GU
2003-2006: Member of the National Council for Education of Dispensing Pharmacists
(Nationella Programrådet för Receptarieutbildningen)
2004-2006: Member of “the Pharmacy Group”, Sahlgrenska Akademin, GU
2003-2006: Ledamot i Grundutbildningsberedningen vi Naturvetenskapliga Fakulteten, GU
2001-2006: Deputy Member of the Board, Department of Zoology, GU
1989-1992: Member of the Board, Department of Zoology, GU

Organizer of an International Scientific Symposium in 2022

Chair and organizer of the 21th International Symposium on Pollutant Responses in Marine Organisms (PRIMO21). Gothenburg May 15-18, 2022

<https://www.delegia.com/primo21>

RESEARCH FUNDING

Research Grants

Formas 2023-2026: Principal investigator: Maja Edenius, IVL Swedish Environmental Research Institute, 300.000 SEK to Malin Celander
Stiftelsen Forska utan Djurförsök. 2022. Principle Investigator Malin Celander: 250.000 SEK
Weener-Gren Stiftelserna, The Swedish 3Rs center, The Swedish EPA, Torvald & Britta Gahlins Stiftelse, City of Gothenburg and Region Västra Götaland. 2022. To the PRIMO21 symposium. 250.000 kr to Malin Celander /Chair of PRIMO21 www.delegia.com/primo21
Formas 2020-2023. Principal investigator: Maria Granberg, IVL Swedish Environmental Research Institute, 120.000 SEK to Malin Celander
Carl Tryggers Stiftelse. 2020-2022. Principle Investigator Malin Celander: 746.250 SEK
Sabbatical grant for 6 months sabbatical 2018/2019 in USA from Faculty of Science, GU
FORMAS 2016-2021. Principal Investigator: Malin Celander, 3.000.000 SEK
Norwegian Research Council 2016-2020. Principal investigator: Anders Goksøyr, University of Bergen; 400.000 NOK to Malin Celander
FORMAS 2008-2010. Malin Celander, Principle Investigator: 2.627.000 SEK
FORMAS 2006-2008. Malin Celander, Principle Investigator: 744.000 SEK
Swedish Environmental Protection Agency 2002-2006. Malin Celander Principle Investigator: 940.000 SEK
Foundation for Strategic Environmental Research (MISTRA) 1999-2000. Malin Celander Principle Investigator: 650.000 SEK
Swedish Research Council 1998-2001. Malin Celander Principle Investigator: 900.000 SEK
FORMAS 1997. Malin Celander Principle Investigator: 175.000 SEK
Carl Tryggers Stiftelse 1997. Foundation. Malin Celander Principle Investigator: 100.000 SEK
FORMAS (formerly SJFR) 1995-1997. Postdoc-scholarship to Malin Celander

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Wenner-Gren Center Foundation 1994. Postdoc-scholarship to Malin Celander

PUBLICATIONS

h-index 36, citations 3919 (Google Scholar 2023-11-10)

<https://scholar.google.com/citations?user=nvMdBqtkoGUC&hl=sv>

Original research articles in peer-reviewed journals

Edenius M, Farbrot A, Blom A and Celander MC. 2024. Delayed clearance of the pro-carcinogen benzo[*a*]pyrene in PLHC-1 cells when co-exposed to the antifungal drug clotrimazole and effects on the CYP1A biomarker. *Toxicology In Vitro*. 95, 105767.

Celander MC, Goldstone JV, Nadja R. Brun, Bryan Clark, Nacci DE and Stegeman JJ. 2021. Resistance to CYP3A induction by polychlorinated biphenyls, including non-dioxin-like PCB153, in gills in killifish (*Fundulus heteroclitus*) from New Bedford Harbor. *Environmental Toxicology and Pharmacology*. 83, 103580

Fallahi S, Mlnářiková M, Alvord C, Bernhardsson A, Alendal G, Frøysa HG, Lundh L and Celander MC. 2020. A new conceptual toxicokinetic model to assess synergistic mixture effects between the aromatic hydrocarbon β -naphthoflavone and the azole nocodazole on the CYP1A biomarker in a fish cell-line. *Environmental Science and Technology*. 54, 13748–13758.

Wang X, Celander MC, Yin X, Zhang Z, Chen Y, Xu H, Yu X, Xu K, Zhang X, Kanchanopas-Barnette P. 2019. PAHs and PCBs residues and consumption risk assessment in farmed yellow croaker (*Larimichthys crocea*) from the East China Sea, China. *Marine pollution bulletin*. 140, 294-300.

Svensson O, Gräns J, Celander MC, Havenhand, Leder EH, Lindström K, and Kvarnemo C. 2017. Immigrant reproductive dysfunction facilitates ecological speciation. *Evolution*, 71(10), 2510-2521.

Cholumpai V, Celander MC and Kanchanopas-Barnette P. 2015. Accumulation and clearance of PAHs and CYP1A levels in farmed green mussels (*Perna viridis* L.) from a coastal area in Thailand. *EnvironmentAsia* 8, 109-117.

Gräns J, Johansson J, Michelová M, Wassmur B, Norström E, Wallin M and Celander MC. 2015. Mixture effects between different azoles and β -naphthoflavone on the CYP1A biomarker in a fish cell line. *Aquat. Toxicol.* 164, 43-51.

Gräns J, Wassmur B, Fernández M, Zanette J, Woodin BR, Karchner SI, Nacci DE, Champlin D, Jayaraman S, Hahn ME, Stegeman JJ and Celander MC. 2015. Regulation of pregnane-X-receptor, CYP3A and P-glycoprotein genes in the PCB-resistant killifish (*Fundulus heteroclitus*) from New Bedford Harbor. *Aquat. Toxicol.* 159, 198-207.

Bainy ACD, Kubota A, Goldstone JV, Lille-Langøy R, Karchner SI, Celander MC, Hahn ME, Goksøyr A and Stegeman JJ. 2013. Functional characterization of a full length pregnane X receptor, expression in vivo, and identification of PXR alleles, in Zebrafish (*Danio rerio*). *Aquat. Toxicol.* 142-143, 447-457.

Thanomsit C, Nantanawat P, Wassmur B, Gräns J, Celander MC and Kanchanopas-Barnette P. 2013. Characterization of metallothionein from Asian sea bass (*Lates calcarifer*, Bloch) and application as a biomarker for heavy metal exposure in Thailand. *Asian Journal of Water, Environment and Pollution*. 10, 53-64

Wassmur B, Gräns J, Norström E, Wallin M and Celander MC. 2013. Interactions of pharmaceuticals and other xenobiotics on key detoxification mechanisms and cytoskeleton in *Poeciliopsis lucida* hepatocellular carcinoma, PLHC-1 cell line. *Toxicol. In Vitro*. 27, 111-120.

Celander MC, Goldstone JV, Denslow ND, Iguchi T, Kille P, Meyerhoff RD, Smith BA, Hutchinson TH and Wheeler JR. 2011. Species extrapolation for the 21st century. *Environ. Toxicol. Chem.* 30, 52-63.

Gräns J, Wassmur B and Celander MC. 2010. One-way inhibiting cross-talk between arylhydrocarbon receptor (AhR) activation and estrogen receptor (ER) signalling in primary cultures of rainbow trout hepatocytes. *Aquat. Toxicol.* 100, 263-270.

Kachanopas-Barnette P, Mookongpai P, Wassmur B, Celander M and Sawangwong P. 2010. Molecular characterization of cytochrome P450 1A (CYP1A) in Asian sea bass (*Lates calcarifer* Bloch) and its application as a biomarker in the Gulf of Thailand. *Asian J. Water Environ. Pollution*. 7, 43-51.

Wassmur B, Gräns J, Kling P and Celander MC. 2010. Interactions of pharmaceuticals and other xenobiotics on hepatic pregnane X receptor and cytochrome P450 3A signaling pathway in rainbow trout (*Oncorhynchus mykiss*). *Aquat. Toxicol.* 100, 91-100.

Hasselberg L, Westerberg S, Wassmur B and Celander MC. 2008. Ketoconazole, an antifungal imidazole, increases the sensitivity of rainbow trout to 17 α -ethynylestradiol exposure. *Aquat. Toxicol.* 86, 256-264.

Lenquist A, Celander MC and Förlin L. 2008. Effects of medetomidine on hepatic EROD activity in three species of fish. *Ecotoxicol. Environm. Safety*. 69, 74-9

Sturve J, Hasselberg L, Fälth H, Celander M and Förlin L. 2006. Effects of North Sea Oil and alkylphenols on biomarker responses in juvenile Atlantic cod (*Gadus morhua*). *Aquat. Toxicol.* 78S, S73-S78.

Hasselberg L, Grøsvik B-E, Goksøyr A and Celander MC. 2005. Interactions between xenoestrogens and ketoconazole on CYP1A and CYP3A in juvenile Atlantic cod (*Gadus morhua*). *Comp. Hepatol.* 4:2

James MO, Lou Z, Rowland-Faux L and Celander M. 2005. Regulation, expression and activity of CYP3A in intestinal microsomes of the channel catfish. *Aquat. Toxicol.* 72, 361-371.

Hasselberg L, Meier S, Hegelund T, Svardal A and Celander M. 2004. Effects of alkylphenols and 17 β -estradiol on CYP1A and CYP3A in adult Atlantic cod (*Gadus morhua*). *Aquat. Toxicol.* 67, 303-313.

Hegelund T, Ottosson K, Tomberg P, Råding M and Celander MC. 2004. Effects of ketoconazole on CYP1A and CYP3A in rainbow trout and killifish. *Environ. Toxicol. Chem.* 23, 1326-1334.

Stephensen E, Adolfsson-Erici M, Celander M, Hulander M, Parkkonen J, Hegelund T, Sturve J, Hasselberg L, Bengtsson M and Förlin L. 2004. Biomarker responses and chemical analyses in fish indicate leakage of PAH and other compounds from car tire rubber. *Environ. Toxicol. Chem.* 22, 2926-2931.

Hegelund T and Celander MC. 2003. Hepatic versus extrahepatic expression of CYP3A30 and CYP3A56 in adult killifish (*Fundulus heteroclitus*). *Aquat. Toxicol.* 64, 277-291.

McArthur AG, Hegelund T, Cox RL, Stegeman JJ, Liljenberg M, Olsson U Sundberg P and Celander MC. 2003. Phylogenetic analysis of the CYP3 gene family. *J. Mol. Evol.* 57, 200-211.

Jørgensen EH, Celander M, Goksøyr A and Iwata M. 2001. The effect of stress on toxicant-dependent cytochrome P450 enzyme responses in the Arctic charr (*Salvenius alpinus*). *Environ. Toxicol. Chem.* 20, 2523-2529.

Celander MC, Moore MJ and Stegeman JJ. 2000. Cellular localization of CYP3A-like proteins in hepatic and extrahepatic tissues from pilot whale (*Globicephalia melas*). *Environ. Toxicol. Pharmacol.* 8, 245-253.

Ronis MJJ, Celander M and Badger TM. 1998. Cytochrome P450 enzymes in the kidney of the bobwhite quail (*Colinus virginianus*): Induction and inhibition by ergosterol biosynthesis inhibiting fungicides. *Comp. Biochem. Physiol.* Vol. 121C, 221-229.

Celander M, Bremer J, Hahn ME and Stegeman JJ. 1997. Glucocorticoid - Xenobiotic Interactions: dexamethasone-mediated potentiation of cytochrome P4501A induction by β -naphthoflavone in a fish hepatoma cell line (PLHC-1). *Environ. Toxicol. Chem.* 16, 900-907.

Celander M and Stegeman JJ. 1997. Isolation of a cytochrome P450 3A cDNA sequence (CYP3A30) from the marine teleost *Fundulus heteroclitus* and phylogenetic analyses of CYP3A genes. *Biochem. Biophys. Res. Commun.* 236: 306-312.

Celander M, Weisbrod R, and Stegeman JJ. 1997. Glucocorticoid potentiation of cytochrome P4501A1 induction by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in porcine and human endothelial cells in culture. *Biochem. Biophys. Res. Commun.* 232, 749-753.

Stegeman JJ, Woodin BR, Singh H, Oleksiak MF and Celander M. 1997. Cytochromes P450 (CYP) in tropical fishes: Catalytic activities, expression of multiple CYP proteins and high levels of hepatic microsomal P450 in fishes from Bermuda. *Comp. Biochem. Physiol.* Vol. 116C, 61-75.

Celander M, Buhler DR, Förlin L, Goksøyr A, Miranda CL, Woodin BR and Stegeman J.J. 1996. Immunochemical relationships of cytochrome P4503A-like proteins in teleost fish. *Fish Physiol. Biochem.* 15, 323-332.

Celander M, Hahn ME and Stegeman JJ. 1996. Cytochromes (CYP) in the *Poeciliopsis lucida* hepatocellular carcinoma cell line (PLHC-1). Dose- and time-dependent glucocorticoid potentiation of induction of CYP1A without induction of CYP3A. *Arch. Biochem. Biophys.* 329, 113-122.

Celander M, Stegeman JJ and Förlin L. 1996. CYP1A1-, CYP2B- and CYP3A expression in rainbow trout (*Oncorhynchus mykiss*) liver: CYP1A1-specific down-regulation after prolonged exposure to PCB. *Mar. Environ. Res.* 42, 283-286.

Förlin L, Blom S, Celander M and Sturve S. 1996. Effects on UDP glucuronosyl transferase, glutathione transferase, DT-diaphorase and glutathione reductase activities in rainbow trout liver after long-term exposure to PCB. *Mar. Environ. Res.* 42, 213-217.

Van der Oost R, Goksøyr A, Celander M, Heida H and Vermeulen NPE. 1996. Biomonitoring of aquatic pollution with feral eel (*Anguilla anguilla*); II. Biomarkers: pollution-induced biochemical responses. *Aquat. Toxicol.* 36, 189-222.

Celander M, Broman D, Förlin L and Näf C. 1995. Effects of petroleum hydrocarbons on the hepatic cytochrome P450 1A1 system in rainbow trout. *Mar. Environ. Res.* 39, 61-65.

Celander M and Förlin L. 1995. Decreased responsiveness of the hepatic cytochrome P450 1A1 in rainbow trout (*Oncorhynchus mykiss*) after prolonged exposure to PCB. *Aquat. Toxicol.* 33, 141-153.

Eggens M, Bergman A, Vethaak D, Van der Weiden M, Celander M and Boon JP. 1995. Cytochrome P4501A indices as biomarkers of contaminant exposure: results of a field study with plaice (*Pleuronectes platessa*) and flounder (*Platichthys flesus*) from the southern North Sea. *Aquat. Toxicol.* 32, 211-225.

Förlin L and Celander M. 1995. Studies of the inducibility of P450 1A in perch from the PCB contaminated Lake Järnsjön in Sweden. *Mar. Environ. Res.* 39, 85-88.

Celander M, Näf C, Broman D and Förlin L. 1994. Temporal aspects of induction of hepatic cytochrome P450 1A and conjugating enzymes in the viviparous blenny (*Zoarces viviparus*) treated with petroleum hydrocarbons. *Aquat. Toxicol.* 29, 183-196.

Husøy AM, Myers MS, Willis MJ, Collier TK, Celander M and Goksøyr A. 1994. Immunohistochemical localization of CYP1A and CYP3A isozymes in hepatic and extrahepatic tissues of Atlantic cod. *Toxicol. Appl. Pharmacol.* 129, 294-308.

Van der Weiden MEJ, de Vries LP, Fase K, Celander M, Seinen W and Van den Berg M. 1994. Relative potencies of polychlorinated dibenzo-*p*-dioxins (PCDDs), dibenzofurans (PCDFs) and biphenyls (PCBs), for cytochrome P450 1A induction in the mirror carp (*Cyprinus carpio*). *Aquat. Toxicol.* 29, 163-182.

Celander M, Leaver MJ, George SG and Förlin L. 1993. Induction of cytochrome P450 1A1 and conjugating enzymes in rainbow trout (*Oncorhynchus mykiss*) liver: a time course study. *Comp. Biochem. Physiol.* 106C, 343-349.

Förlin L and Celander M. 1993. Induction of cytochrome P450 1A in teleosts: environmental monitoring in Swedish fresh, brackish and marine waters. *Aquat. Toxicol.* 26, 41-56.

Van der Weiden MEJ, Celander M, Seinen W, Van den Berg M, Goksøyr A and Förlin L. 1993. Induction of cytochrome P450 1A in fish treated with 2,3,7,8-tetrachlorodibenzo-*p*-dioxin or chemically contaminated sediment. *Environ. Toxicol. Chem.* 12, 989-999.

Van der Weiden MEJ, Hanegraaf FHM, Eggens ML, Celander M, Seinen W and Van den Berg M. 1993. Temporal induction of cytochrome P450 1A in the mirror carp (*Cyprinus carpio*) after administration of several polycyclic aromatic hydrocarbons. *Environ. Toxicol. Chem.* 13, 797-802.

Celander M and Förlin L. 1992. Quantification of cytochrome P4501A1 and catalytic activities in liver microsomes of isosafrol- and β -naphthoflavone-treated rainbow trout (*Oncorhynchus mykiss*). *Mar. Environ. Res.* 34, 123-126.

Förlin L, Balk L, Celander M, Bergek S, Hjelt M, Rappe C, de Wit C and Jansson B. 1992. Biotransformation enzyme activities and PCDD/PCDF levels in pike caught in a Swedish lake. *Mar. Environ. Res.* 34, 169-173.

Larsen HE, Celander M and Goksøyr A. 1992. The cytochrome P450 system of Atlantic salmon (*Salmo salar*): II. Variations in hepatic catalytic activities and isozyme patterns during an annual reproductive cycle. *Fish Physiol. Biochem.* 10, 291-301.

Ronis MJJ, Celander M, Förlin L and Badger TM. 1992. The use of polyclonal antibodies raised against rat and trout cytochrome P450 CYP 1A1 orthologues to monitor environmental induction in the channel catfish (*Ictalurus punctatus*). *Mar. Environ. Res.* 34, 181-188.

Van der Weiden MEJ, Celander M, Seinen W, van den Berg M, Goksøyr A and Förlin L. 1992. Effects of 2,3,7,8-TCDD and contaminated sediment on the cytochrome P4501A orthologue in rainbow trout (*Oncorhynchus mykiss*) and carp (*Cyprinus carpio*). *Mar. Environ. Res.* 34, 215-219.

Celander M and Förlin L. 1991. Catalytic activity and immunochemical quantification of hepatic cytochrome P-450 in β -naphthoflavone and isosafrol treated rainbow trout (*Oncorhynchus mykiss*). *Fish Physiol. Biochem.* 9, 189-197.

Goksøyr A, Husøy AM, Larsen HE, Klungsoyr J, Wilhelmsen S, Maage A, Brevik EM, Andersson T, Celander M, Pesonen M and Förlin L. 1991. Environmental contaminants and biochemical responses in flatfish from the Hvaler Archipelago in Norway. *Arch. Environ. Contam. Toxicol.* 21, 486-496.

Celander M, Förlin L and Andersson T. 1989. Cytochrome P-450 mediated O-dealkylation of 7-alkoxycoumarins in liver microsomes from rainbow trout (*Salmo gairdneri*). *Fish Physiol. Biochem.* 6, 199-205.

Celander M, Ronis MJJ and Förlin L. 1989. Initial Characterization of a constitutive cytochrome P-450 isoenzyme in rainbow trout liver. *Mar. Environ. Res.* 28, 9-13.

Goksøyr A, Husøy A-M, Larsen HE, Klungsoyr J, Wilhelmsen S, Brevik EM, Andersson T, Celander M, Pesonen M and Förlin L. 1989. Evaluation of biochemical responses to environmental contaminants in flatfish from the Hvaler Archipelago in Norway. *Mar. Environ. Res.* 28, 51-55.

Pesonen M, Celander M, Förlin L and Andersson T. 1987. Comparison of xenobiotic biotransformation enzymes in kidney and liver of rainbow trout (*Salmo gairdneri*). *Toxicol. Appl. Pharmacol.* 91, 75-84.

Review articles

Celander MC. 2011. Cocktail effects on biomarker responses in fish. *Aquat. Toxicol.* 105S, 72-77. Invited author.

Celander M and Stegeman J. 2007. Evolution of Drug-metabolizing CYP genes. *SCREENING trends in drug discovery.* 8, 34-35. Invited author.

Editorials

Nikinmaa M, Tjeerdema R, Ford A and Celander MC. 2016. What changes a manuscript from just another one to an important contribution in aquatic toxicology: Points that increase the chances of work getting published in *Aquatic Toxicology*—and being rewarded. *Aquat. Toxicol.* 174: A1-A2.

Nikinmaa M, Tjeerdema R, Celander MC, Ford A, Dunne D. 2015. An addition to the editorial team of *Aquatic Toxicology* and the responsibilities of the different editors. *Aquat. Toxicol.* 158: A1-A2

Nikinmaa M, Tjeerdema R, Celander MC and Barranguet C. 2013. Open access in *Aquatic Toxicology*. *Aquat. Toxicol.* 134-135: A1

Nikinmaa M, Celander MC and Tjeerdema R. 2012. Replication in aquatic biology: The result is often pseudoreplication. *Aquat. Toxicol.* 0166-445X

Nikinmaa M, Celander M and Schlenk D. 2011. Editorial. Jubileum issue: aquatic toxicology 30 years. *Aquat. Toxicol.* 105S: 1-2.

Book chapters

Celander M. Erfarenheter av oredlighetsärenden från Göteborgs universitet och Chalmers tekniska högskola. 2019. *Acta regiae societatis scientiarum et litterarum Gothoburgensis. Interdisciplinaria* 17. Redaktör: Bo Lindberg. Vetenskaplig redlighet och oredlighet. Kungliga Vetenskaps- och Vitterhets-Samhället, Göteborg. Inviterad författare.

Bignert A, Celander M and Haglund P. 2013. Bokkapitel: Fiskar lever i kemisk cocktail. Boktitel: Havsbruk som håller i längden. Formas Fokuserar. Redaktör: Birgitta Johansson. www.formasfokuserar.se Inviterad författare.

Wallin M, Celander M and Strömberg E. 2012. Modern bioscience and biotechnology education and resources for school teachers. *In: The Researching, Teaching and Learning Triangle, Mentoring in Academia and Industry.* Eds. M. Casthano and G. Günner-Akdogan. Springer. pp 67-78.

Schlenk D, George SG, James MO, van den Hurk P, Willett K, Kullman S, Celander M and Gallagher E. 2008. Biotransformations *In: The Toxicology of Fishes, Chapter 4.* Eds. R. Di Giulio and D. Hinton. Taylor and Francis Publishers, Washington DC. pp. 153-234. Invited co-author.

McClelland-Green P, Celander M and Oberdörster E. Reptile Toxicology. 2006. Chapter 5: Hepatic and Renal Toxicology. Eds. Susan Gardner and Eva Oberdörster. Taylor and Francis publisher. Taylor and Francis publisher. Chapter 5, pp 123-148. ISBN 0-8493-2715-6. Invited co-author.

Celander M. 1999. Impact of stress in animal toxicology. *In: Stress Physiology in Animals*. Ed. Paul H.M. Balm. Sheffield Academic Press. Sheffield, UK, Chapter 7, pp. 247-79. ISBN 1 85075 908 1. Invited author.

Conference proceedings

Celander M and Balk L. Toxic effects of outboard motor emissions on fish. *In: The Environmental Impacts of Boating*. Eds. Richard E. Crawford, Nils E. Stolpe, and Michael J. Moore. March 1998, WHOI Technical Report WHOI-98-03. <http://www.fishingnj.org/pdfs/boatingimpacts.pdf>

Andersson T, Celander M, Goksøyr A, Pesonen M, Vaillant C and Förlin L. 1989. Cytochrome P-450 and induction: monitoring of aquatic environment. *In: Cytochrome P-450: Biochemistry and Biophysics*. Ed. I. Schuster. Taylor & Francis, London, pp. 679-684.

Celander M. and Förlin L. 1989. Immunochemical quantitation of β -naphthoflavone-inducible cytochrome P-450 in rainbow trout and perch. *In: Cytochrome P-450: Biochemistry and Biophysics*. Ed. I. Schuster. Taylor & Francis, London, pp. 710-713.

Förlin L, Goksoyr A, Andersson T and Celander M. 1989. Catalytic and immunochemical studies of cytochrome P-450 in perch exposed to bleached kraft mill effluents. *In: Cytochrome P-450: Biochemistry and Biophysics*. Ed. I. Schuster. Taylor & Francis, London, pp. 702-705.

PhD Thesis

Malin Celander. Induction of cytochrome P450 in teleost fish with emphasis on the *CYP1* gene family. 1993. University of Gothenburg, ISBN 91-628-1006-5.

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